

Online Appendix

Lost in transition? The persistence of dictatorship mayors

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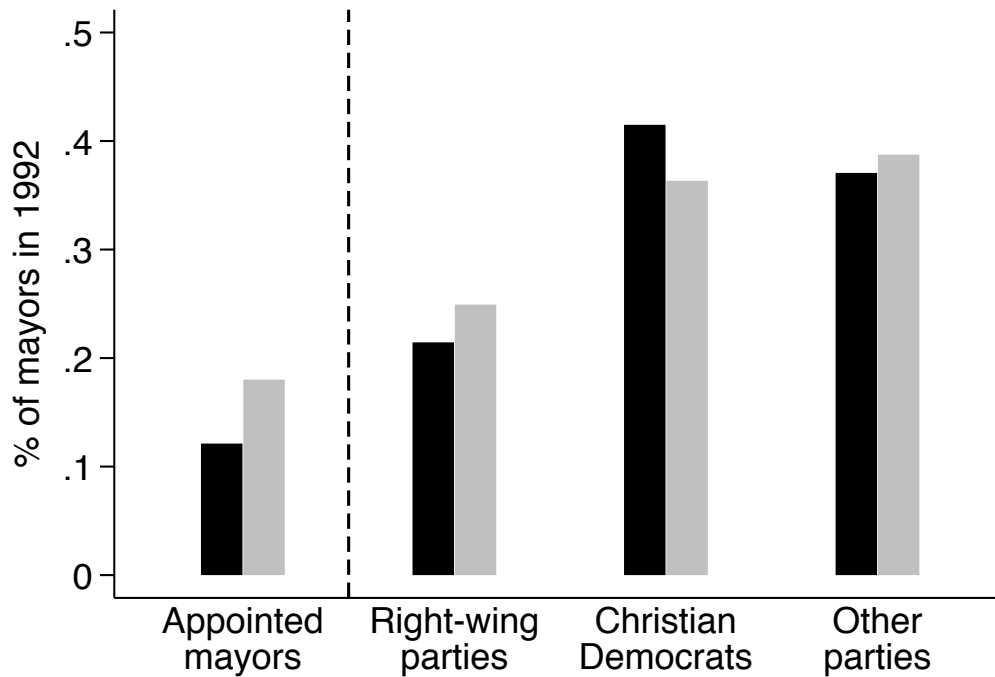
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Figure A.1: Who profited from the electoral rule in the 1992 election



Notes: Electoral results (**black bars**) and counterfactual results (**gray bars**) in the 1992 local elections under different electoral rules. Percentage of mayors by appointed or not in the left part of the figure and by political party in the right part of the figure. Black bars indicate the actual percentage of mayors elected, while gray bars represent the percentage of mayors elected in a counterfactual world with a simple majority rule to elect mayors.

Figure A.2: Data on local projects

OBRAS TERMINADAS AL 31 DE DICIEMBRE DE 1985														
Comuna	Nombre de la obra	Línea de acción	Cant.	Fecha Contrato	Fecha Term.	Sup. Únitaria m ²	Sup. Total m ²	Costo Únitario U.F.	Costo Total U.F.	Origen Financ.	Decreto de Contrato	Nº de pisos	Forma agrupac.	Contratista
OBRAS DEL SECTOR														
Pavimentación:														
Los Andes	Av. Argentina	Pavimentos nuevos		12-06-84	01-85				19.370	Sector	170			24
Los Andes	Av. Argentina	Pavimentos nuevos		20-11-84	01-85				1.403	Sector	170			24
Viña del Mar	Av. 1 Norte	Varios		14-11-84	01-85				1.917	Sector	170			24
Viña del Mar	Varias calles	Recuperación		20-06-85	08-85				439	Sector	29			17
Viña del Mar	Varias calles	Recuperación		03-06-85	08-85				6.928	Sector	29			24
Viña del Mar	Granadillas 1-2-3-4	Pavimentos nuevos		12-03-85	09-85				7.733	Sector	29			24
Valparaíso		Recuperación		30-04-85	06-85				462	Sector	170			9
Valparaíso	Av. 11 de Septiembre	Varios		31-05-85	07-85				1.140	Sector	170			9
Quilpué	Acceso Puente El Belloto	Pavimentos nuevos		14-11-84	01-85				1.457	Sector	170			24
Total inversión en pavimentación									40.849					
Otras obras:														
Valparaíso	Av. Altamirano	Varios		10-09-84	01-85				8.300	Sector	170			24
OBRAS POR CONVENIOS Y MANDATOS SIN ADMINISTRACION FINANCIERA														
Saneamiento de poblaciones:														
Villa Alemana	Rosenquist	Unidades sanitarias	450	29-06-84	08-85	7,08	3.186	87,00	39.152	Municipal-BID	Especial			19
Quillota	Aconcagua Sur	Unidades Sanitarias	307	29-06-84	07-85	7,08	2.174	90,10	27.662	Municipal-BID	Especial			19
San Antonio	Varias obras	Unidades Sanitarias	327	31-07-84	08-85	7,08	2.315	105,18	34.393	Municipal-BID	Especial			19
Total			1.084				7.675		101.207					
Pavimentación:														
Viña del Mar	Varias calles	Pavimentos nuevos		12-03-85	03-85				5.327	Municipal	170			24
San Felipe	Av. 11 de Septiembre	Pavimentos nuevos		25-07-85	10-85				6.462	Municipal	29			18
Total									11.789					

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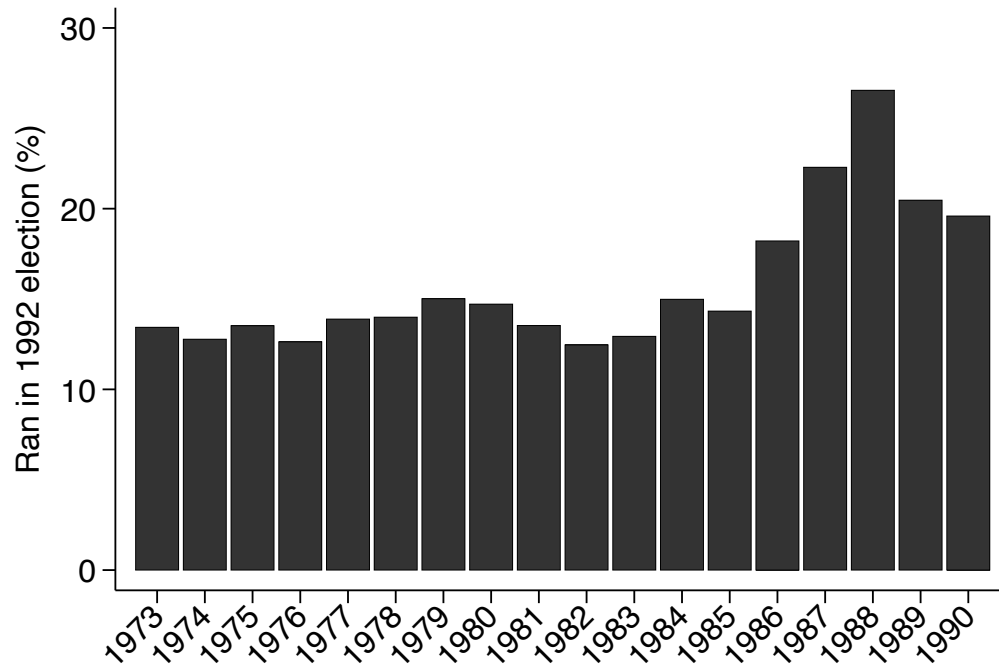


QUILLOTA
El Bajo



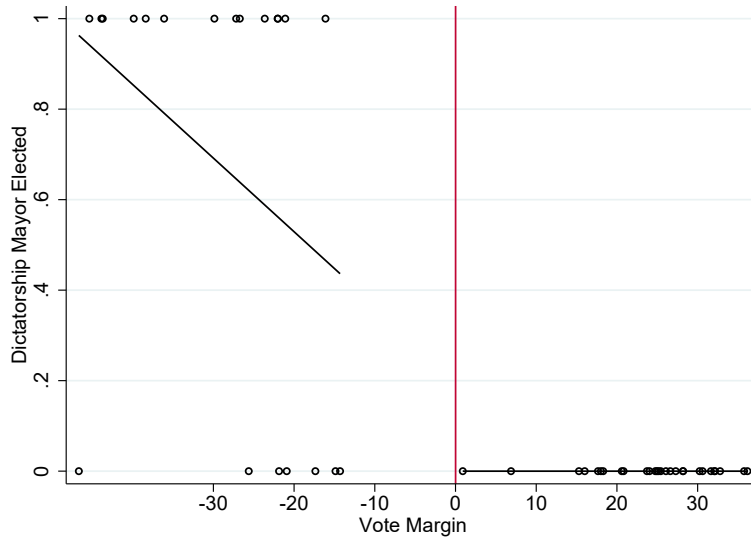
Notes: The data section provides more details.

Figure A.4: Share of incumbent dictatorship mayors who ran in 1992

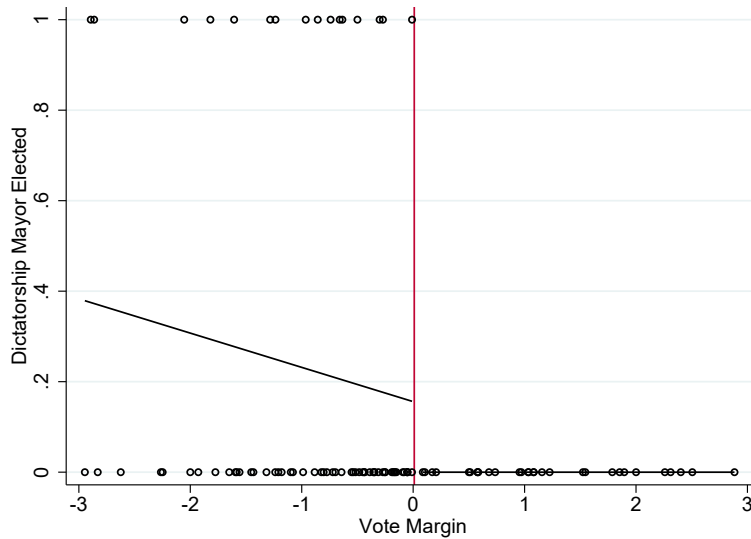


Notes: This figure shows the percentage of dictatorship mayors who decided to run in the 1992 election in each year that Pinochet was in power (1973-1990). In each year we observe all dictatorship mayors and then we check how many of them ran as candidate for mayor in 1992. The figure clearly shows that dictatorship mayors who were in office towards the end of the dictatorship were more likely to run in the 1992 election.

Figure A.5: Regression discontinuity designs are infeasible



(a) More than 35% of the vote (49 municipalities)



(b) Margin 6th/7th most voted (105 municipalities)

Notes: Panel (a) shows that when a candidate obtained more than 35% of the vote, then the probability of being elected in the 1992 election increased discontinuously. However, in all of these cases he or she won by a large margin of victory, invalidating the inherent randomness of close elections. Consequently, we do not have enough observations around the “cutoff” to implement this design. Panel (b) uses the vote margin between the 6th-7th candidates as the running variable. The vote margin has the expected sign but we cannot apply standard tools to choose the optimal bandwidth because there are few observations around the cutoff.

Table A.1: Additional descriptive statistics

	Mean	St. Dev.	Min	Max	Municipalities
	(1)	(2)	(3)	(4)	(5)
Indicator misreporting local finance (1996)	0.35	0.48	0.00	1.00	333
Municipal budget deficit (1993–1994)	1.00	0.06	0.76	1.36	333
Spending projects per capita (in \$, 1992–1996)	3.09	3.88	0.00	36.18	333
Number of projects per capita (1992–1996)	9.46	15.12	0.00	178.04	333

Notes: Data for misreporting of local finance and budget deficit comes from the General Accounting Office. Data for projects comes from annual reports of the Ministry of Housing and Urbanization.

Table A.2: Local spending in dictatorship and the transition to democracy

Local spending variable:	in dictatorship			during transition		
	Projects		Municipal	Projects		Municipal
	Log \$	Number	Log \$	Log \$	Number	Log \$
	(1)	(2)	(3)	(4)	(5)	(6)
Vote share for the right wing candidate in 1970	-0.08 (0.18)	-10.20 (12.11)	0.26** (0.13)	0.44 (0.35)	-1.65 (1.66)	-0.03 (0.07)
Vote share for the left-wing candidate in 1970	-0.07 (0.20)	-16.29 (12.81)	0.13 (0.13)	0.02 (0.40)	1.45 (2.09)	-0.03 (0.06)
Victims of repression per 1,000 inhab.	0.01 (0.04)	-0.16 (1.94)	0.04 (0.04)	0.15 (0.10)	-0.01 (0.22)	0.02 (0.01)
Indicator military base in 1970	0.89*** (0.28)	-14.88** (6.77)	-0.48*** (0.16)	1.15*** (0.44)	-1.25 (1.22)	-0.23** (0.10)
Intensity of protests 1983-84	-0.10 (0.08)	-0.78 (0.75)	0.07 (0.05)	-0.18 (0.13)	-0.09 (0.21)	0.08*** (0.03)
Vote share NO in 1988 (referendum)				1.65*** (0.54)	-1.33 (1.73)	-0.27*** (0.08)
Vote share opposition in 1989 (Aylwin)				-0.90* (0.54)	-4.20 (4.48)	0.04 (0.08)
Municipalities	321	321	320	321	321	315
R-squared	0.185	0.142	0.322	0.355	0.323	0.431
Province fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Avg. dependent variable	10.78	27.63	3.69	7.37	4.25	3.98

Notes: Standard errors are robust to heteroscedasticity. Significance level: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table A.3: Winners in the first local election

The dependent variable is an indicator for the winners of the 1992 local election

	(1)	(2)	(3)	(4)
Dictatorship mayor	0.15*** (0.03)	0.15*** (0.03)	0.18*** (0.03)	0.13*** (0.03)
Incumbent mayor				0.10** (0.05)
Candidates	6,497	6,497	6,497	6,497
Municipalities	333	333	333	333
R-squared	0.02	0.03	0.10	0.11
Municipality fixed effects		X	X	X
Political party fixed effects			X	X
Mean of dependent variable	0.07	0.07	0.07	0.07

Notes: Each observation is a candidate in the 1992 local election. The number of dictatorship mayors is 246. Standard errors clustered by municipality in parenthesis. Significance level: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table A.4: Robustness to flexible fixed effects by party in 1992

	Vote share		Indicator elected	
	(1)	(2)	(3)	(4)
Dictatorship mayor	9.35*** (0.77)	9.48*** (0.76)	0.18*** (0.03)	0.18*** (0.03)
Candidates	6,491	6,481	6,491	6,481
Municipalities	333	333	333	333
R-squared	0.30	0.31	0.12	0.14
Municipality fixed effects	X	X	X	X
Political party by region fixed effects	X		X	
Political party by province fixed effects		X		X
Avg. dependent variable	5.13	5.13	0.07	0.07

Notes: Each observation is a candidate in the 1992 local election. The number of dictatorship mayors is 246 and the number of incumbent dictatorship mayors is 117. Standard errors clustered by municipality in parenthesis. Significance level: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table A.5: Robustness to flexible fixed effects by party in 1996*The dependent variable is the vote share of candidates in the 1996 local election*

<i>Sample:</i>	Full	Restricted	Full	Restricted	Full	Restricted	Full	Restricted
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Incumbent	21.96*** (0.81)	13.36*** (1.63)	21.96*** (0.85)	14.56*** (1.88)	21.97*** (0.81)	13.74*** (1.85)	21.97*** (0.85)	13.88*** (2.19)
Incumbent × Dictatorship mayor			-8.38*** (2.76)	-8.25 (6.81)			-8.83*** (2.70)	-0.98 (8.11)
Dictatorship mayor			10.05*** (1.12)	5.56 (4.57)			10.55*** (1.14)	1.16 (5.05)
Candidates (observations)	5,463	436	5,463	436	5,435	396	5,435	396
R-squared	0.459	0.528	0.482	0.533	0.471	0.629	0.496	0.630
Municipalities	341	196	341	196	340	179	340	179
Municipality fixed effects	X	X	X	X	X	X	X	X
Political party by region fixed effects	X	X	X	X				
Political party by province fixed effects					X	X	X	X
Avg. dependent variable	6.242	22.70	6.242	22.70	6.248	22.88	6.248	22.88

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Notes: Each observation is a candidate in the 1996 local election. . The full sample includes all candidates, while the restricted sample only includes winners (incumbents) and runner-ups from the 1992 elections who decided to run in the 1996 local elections, which occurred in 214 municipalities. In this sub-sample there are 260 incumbent mayors running for reelection, 27 of which were dictatorship mayors. In addition, there were 40 dictatorship mayors who were the runner-ups in 1992. Standard errors clustered by municipality in parenthesis. Significance level: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table A.6: Repression and the vote premium of dictatorship mayors*The dependent variable is the vote share of candidates in the 1992 local election*

Local spending variable:	Development projects		Municipal spending
	Log spending per capita	Number of projects per capita	Log spending per capita
	(1)	(2)	(3)
Dictatorship mayor	9.57*** (0.79)	9.64*** (0.79)	9.50*** (0.76)
× Spending in democracy	0.19 (1.13)	-0.36 (1.15)	2.45 (2.88)
× Spending in transition	2.36* (1.33)	3.74** (1.50)	-0.22 (3.26)
× Spending in dictatorship	-0.05 (0.96)	1.10 (0.94)	1.26 (1.91)
× Repression victims per 1,000 inhab	1.31 (2.26)	2.08 (2.20)	1.48 (2.13)
Candidates (observations)	6,274	6,274	6,274
Municipalities	324	324	324
Municipality fixed effects	X	X	X
Political party fixed effects	X	X	X
Avg. dependent variable	5.164	5.164	5.164

Notes: Each observation is a candidate in the 1992 local elections. The number of dictatorship mayors is 246. Robust standard errors clustered at the municipality level in parenthesis. Significance level: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table A.7: The vote premium among incumbent and non-incumbent dictatorship mayors*The dependent variable is the vote share of candidates in the 1992 local election*

Local spending variable:	Development projects		Municipal spending
	Log spending per capita	Number of projects per capita	Log spending per capita
	(1)	(2)	(3)
Non-Incumbent dictatorship mayor	6.35*** (0.88)	6.70*** (0.94)	6.56*** (0.92)
× Spending in democracy	-2.60 (2.05)	-0.73 (1.27)	4.71 (3.51)
× Spending in transition	1.87 (1.64)	2.02 (2.63)	-7.85 (5.07)
× Spending in dictatorship	1.90 (1.26)	1.50 (0.96)	6.91*** (2.56)
Incumbent dictatorship mayor	12.47*** (1.19)	12.50*** (1.20)	12.28*** (1.12)
× Spending in democracy	0.64 (0.74)	0.05 (1.60)	8.92* (4.65)
× Spending in transition	3.79 (2.63)	3.16* (1.70)	-1.41 (3.54)
× Spending in dictatorship	-3.33 (2.91)	1.43 (3.06)	-4.59** (2.12)
Candidates (observations)	6,274	6,274	6,274
Municipalities	324	324	324
Municipality fixed effects	X	X	X
Political party fixed effects	X	X	X
Avg. dependent variable	5.164	5.164	5.164

Notes: Each observation is a candidate in the 1992 local elections. The number of dictatorship mayors is 246 and the number of dictatorship prisoners is 514. Robust standard errors clustered at the municipality level in parenthesis. Significance level: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table A.8: Candidates presidential elections 1993 – 2017

Coalition	1993	1999	2005	2009	2013	2017
Right-wing	A. Alessandri J. Piñera	J. Lavín	S. Piñera J. Lavín	S. Piñera	E. Matthei	S. Piñera J.A. Kast
Left-wing	E. Frei M. Max Neef E. Pizarro C. Reitze	R. Lagos G. Marín T. Hirsch	M. Bachelet T. Hirsch	E. Frei J. Arrate M. Enríquez	M. Bachelet M. Enríquez M. Claude A. Sfeir R. Miranda	A. Guillier C. Goic M. Enríquez E. Artés A. Navarro B. Sánchez

Notes: Own construction based on administrative data from the Electoral Service.

Table A.9: Coalitions local elections 1996 – 2016

	1996	2000	2004	2008	2012	2016
Right-wing	Participación y Prog. U. Centro Centro	Alianza Centro Centro	Alianza Centro Centro	Alianza	Alianza	Chile Vamos Amplitud
Left-wing	Concertación P. Comunista	Concertación La Izquierda Humanistas y Ecologistas	Concertación Juntos Podemos Hum. y Eco.	Concertación Dem. Juntos Podemos Hum. y Eco. Concertación Prog. Chile Limpio Fza. Norte	Concertación Dem. Chile en Otra El Cambio Por Ti Más Humanos Desarrollo Norte Chile Justo	Nueva Mayoría Cambiemos la Historia Yo Marco por el Cambio Alternativa Democrática Other (smaller)

Notes: Own construction based on administrative data from the Electoral Service.

Table A.10: Dictatorship mayors and electoral competition in democracy*The dependent variable is a measure of ex-ante or ex-post electoral competition*

<i>Dependent variable:</i>	Period: 1996-2000			Period: 2004-2016		
	<i>Victory margin</i>	<i>Number of candidates</i>	<i>HHI</i>	<i>Victory margin</i>	<i>Number of candidates</i>	<i>HHI</i>
	(1)	(2)	(3)	(4)	(5)	(6)
<hr/> Panel A – Second stage <hr/>						
Dictatorship Mayor Elected	-0.03 (0.08)	-2.31 (2.39)	-0.14** (0.06)	0.13 (0.09)	-1.04* (0.56)	0.07 (0.05)
<hr/> Panel B – First stage <hr/>						
Left-wing majority	-0.26*** (0.06)	-0.26*** (0.06)	-0.26*** (0.06)	-0.26*** (0.06)	-0.26*** (0.06)	-0.26*** (0.06)
Municipality-year observations	210	210	210	416	419	420
Avg. dependent variable	0.15	13.44	0.48	0.19	3.27	0.47
KP F-test	21.18	21.18	21.18	21.31	21.36	21.33

Notes: “HHI” stands for Herfindhal-Hirschman Index and measures the concentration of vote shares with higher values meaning more concentration and hence less competition. Robust standard errors in parenthesis. Significance level: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table A.11: Political legacies in local elections by year*The dependent variable is the vote share of right-wing candidates*

	1996	2000	2004	2008	2012	2016
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A – Second stage						
Dictatorship mayor elected	44.98*** (14.22)	13.64 (13.25)	23.30 (14.31)	3.45 (13.33)	21.10 (15.35)	5.65 (15.72)
Panel B – First stage						
Left-wing majority	-0.23*** (0.05)	-0.23*** (0.05)	-0.23*** (0.05)	-0.24*** (0.05)	-0.24*** (0.05)	-0.23*** (0.05)
Municipalities	105	105	105	104	100	100
Avg. dependent variable	39.38	40.50	36.83	37.21	38.29	40.13
KP F-test	20.86	20.86	20.86	20.95	19.42	19.13

Notes: All specifications only consider the set of municipalities with a close council composition, restrict attention to elections with at least one right-wing candidate, and control by municipality size category and victory margin. The number of municipalities with at least one right-wing candidate in the quasi-experimental sample drops from 105 to 100 from 2004 to 2016. Robust standard errors in parenthesis. Significance level: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table A.12: Political legacies in presidential elections by year
The dependent variable is the vote share of right-wing candidates

	1993	1999	2005	2009	2013	2017
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A – Second stage						
Dictatorship mayor elected	8.13 (5.24)	11.02 (6.95)	8.32 (6.08)	5.87 (5.83)	9.22* (5.15)	14.80** (7.15)
Panel B – First stage						
Left-wing majority	-0.23*** (0.05)	-0.23*** (0.05)	-0.23*** (0.05)	-0.23*** (0.05)	-0.23*** (0.05)	-0.23*** (0.05)
Municipalities	105	105	105	105	105	105
Avg. dependent variable	32.17	51.29	50.70	45.33	23.96	47.82
KP F-test	20.86	20.86	20.86	20.86	20.86	20.86

Notes: All specifications only consider the set of municipalities with a close council composition, and control by municipality size category and victory margin. Robust standard errors in parenthesis. Significance level: *** p<0.01, ** p<0.05, * p<0.1.

Table A.13: Robustness to smaller vote margins

Sample:	Vote margin <5 pp.			Vote margin <2.5 pp.		
<i>Dependent variable:</i>	<i>Right-wing vote share in local elections</i>	<i>Right-wing vote share in presid. elections</i>	<i>% right-wing councilors elected</i>	<i>Right-wing vote share in local elections</i>	<i>Right-wing vote share in presid. elections</i>	<i>% right-wing councilors elected</i>
	(1)	(2)	(3)	(4)	(5)	(6)
Dictatorship mayor	19.08* (10.05)	8.67 (5.48)	0.19** (0.09)	21.62* (11.85)	8.17 (6.07)	0.21* (0.11)
Observations	613	624	208	549	558	186
Avg. dependent variable	38.71	41.96	0.201	38.75	41.76	0.204
KP F-test	21.24	21.44	21.22	16.55	16.36	16.18

Notes: All specifications only consider the set of municipalities with a close council composition, and control by municipality size category, victory margin, and include year fixed effects. Standard errors clustered at the municipality level in parenthesis. Significance level: *** p<0.01, ** p<0.05, * p<0.1.

Table A.14: Robustness to additional controls*The dependent variable is the vote share of right-wing candidates*

<i>Dependent variable</i>	<i>Right-wing vote share in local elections</i>		<i>Right-wing vote share in presid. elect.</i>		<i>% right-wing councilors elected</i>	
	(1)	(2)	(3)	(4)	(5)	(6)
Dictatorship mayor	18.90* (9.88)	12.79 (9.43)	9.16* (5.41)	10.05** (4.68)	0.18** (0.08)	0.11 (0.07)
Observations	619	513	630	522	210	174
Avg. dependent variable	38.72	38.18	41.88	41.27	0.202	0.197
KP F-test	21.19	16.35	21.39	16.02	21.11	15.12
+ Vote margin ²	Yes	Yes	Yes	Yes	Yes	Yes
+ Other Controls	No	Yes	No	Yes	No	Yes

Notes: All specifications only consider the set of municipalities with a close council composition, and control by municipality size category, victory margin, and include year fixed effects. Other controls include right-wing vote share in 1958, vote share Eduardo Frei in 1964, right- and left-wing vote shares in 1970, an indicator for left-wing mayor in 1971, distances to Santiago and the regional capital, population density, and the percentage of women. Standard errors clustered at the municipality level in parenthesis. Significance level: *** p<0.01, ** p<0.05, * p<0.1.

Table A.15: The performance of dictatorship mayors in years without local elections

	Panel data 1993-94			Cross-section	
	Budget deficit	Projects (number) per capita	Projects (\$) per capita	Change in night lights (1992-94)	Change in avg. wages (1992-94)
Panel A – Second stage	(1)	(2)	(3)	(4)	(5)
Dictatorship mayor elected	0.05 (0.04)	-2.47 (2.43)	-375.37 (337.63)	-0.45 (0.71)	-1.14 (0.76)
Panel B – First stage					
Left-wing majority council	-0.23*** (0.05)	-0.23*** (0.05)	-0.23*** (0.05)	-0.23*** (0.05)	-0.19*** (0.08)
Municipality-year observations	205	205	205	103	46
Avg. dependent variable (panel A)	1.00	2.19	432.6	0.734	0.364
K-P <i>F</i> -statistic	20.1	20.1	20.1	19.8	5.8

Notes: All specifications control by municipality size category and victory margin. Robust standard errors in parenthesis. Significance level: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table A.16: Dictatorship mayors and category of projects 1993-1996

	Dependent variable is log of projects per capita					
	All	Housing	Urban	Emergency	Conservation	Other
<u>Panel A – Projects (N) per 10,000 inhab.</u>	(1)	(2)	(3)	(4)	(5)	(6)
Dictatorship mayor elected	-1.0 (2.9)	-0.4 (0.4)	-0.3 (0.7)	-0.5 (1.4)	-0.4 (0.4)	0.5 (1.1)
Avg. dependent variable	2.5	0.2	0.8	0.6	0.3	0.6
<u>Panel B – Projects (US\$) per 10,000 inhab.</u>						
Dictatorship mayor elected	-523 (369)	-322 (211)	-141 (156)	-10 (14)	-28 (23)	-23 (42)
Observations	411	411	411	411	411	411
Avg. dependent variable	282	149	97	7	12	18
KP F-test	20.18	20.18	20.18	20.18	20.18	20.18

Notes: All specifications control by municipality size category and victory margin. Robust standard errors in parenthesis. Significance level: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.