

Online Appendix

to

ELECTORAL OPPORTUNISM AND VERTICAL FISCAL IMBALANCE

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This online Appendix includes five tables showing the distribution of election dates along the year, a summary statistics for the variables included in the econometric estimations, estimates of equations 1 and 2 by OLS with fixed effects and robust standard errors and regressions exploring the link between a narrow definition of vertical fiscal imbalance and elections.

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Table A1. The timing of elections from 1985 to 2007. Number of gubernatorial elections carried out in a given month.

Month	Number of Elections	Percentage
January	0	0.0
February	0	0.0
March	1	0.9
April	2	1.7
May	19	16.2
June	7	6.0
July	1	0.9
August	8	6.8
September	52	44.4
October	21	17.9
November	3	2.6
December	3	2.6
Total number of elections	117	100.0

Note: Two-thirds (67.5%) of the gubernatorial elections (24 districts) took place in the last four months of the year.

Table A2. Descriptive Statistics. Period: 1985-2007

Variable	Obs	Mean	Std. Dev.	Min	Max
Dependent variables					
Expenditure per capita	506	2278.2	1365.4	592	12452.8
Local Revenues per capita	506	304.8	185.9	27.6	1369.3
Budget Result per capita	506	-133.7	314.2	-1339.0	873.3
Ratio of Current Expenditure to Direct Investment	506	8.0	8.0	1.0	118.7
Political and socio-economic controls					
Federal Intervention	506	0.02	0.13	0	1
Alignment	506	0.52	0.50	0	1
Date	506	0.055	0.23	0	1
GDP per capita	506	331.6	199.4	96.4	1221.8
Rate of growth of GDP per capita	506	2.05	11.79	-30.05	46.3
Budget result per capita lagged one period	506	-145.62	308.41	-1339.0	862.7
Infant mortality rate	506	21.7	6.8	9.3	46.6
PBC variables					
Election Year	506	0.26	0.44	0	1
VFI	506	83.5	10.8	47.1	98.4

Note: numbers of districts: 22; numbers of periods: 23.

Table A3. Do Incumbent governors manipulate fiscal variables? Robustness Check. Estimation Method: OLS with fixed-effects. Robust Standard Errors

Variable	Dependent Variables							
	Expenditures per capita		Local Revenues per capita		Ratio Current Expenditures to Direct Investment		Budget Result per capita	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
$EXPENDITURE_{t-1}$	0.7864*** (0.0750)	0.7762*** (0.0756)						
$REVENUES_{t-1}$			0.6083*** (0.0575)	0.6242*** (0.0549)				
$EXPENDMIX_{t-1}$					0.5683*** (0.0197)	0.5702*** (0.0193)		
$BUDGET\ RESULT_{t-1}$	0.5304*** (0.1568)	0.5022*** (0.1587)	0.0357** (0.0143)	0.0385*** (0.0134)	-0.0033*** (0.0010)	-0.0034*** (0.0011)	0.3833*** (0.0697)	0.3963*** (0.0699)
$ELECTION\ YEAR_t$	82.0353*** (25.1871)	85.0249*** (26.3591)	0.5410 (2.8626)	-0.0174 (3.0187)	-1.3196*** (0.4459)	-1.3722*** (0.4810)	-69.6061** (28.2911)	-71.0631** (26.5334)
VFI_t	-10.6113* (6.1460)		-9.9953*** (1.5749)	-9.9950*** (1.5854)	-0.1842*** (0.0507)	-0.1693*** (0.0432)	8.6410* (4.4632)	8.8790* (4.4538)
$GDP\ per\ capita_{t-1}$	1.7837** (0.6867)	1.8927** (0.7013)	0.4195*** (0.1333)	0.4064*** (0.1356)	-0.0009 (0.0024)		0.2177 (0.2879)	
$Rate\ of\ Growth\ of\ GDP\ per\ capita_t$	4.7071*** (1.3030)	3.7544*** (1.3186)	1.0700*** (0.2422)	1.1552*** (0.2414)	-0.1222** (0.0475)	-0.1211** (0.0486)	3.2601*** (1.0470)	3.8338*** (1.1142)
$INFANT\ MORTALITY\ RATE_{t-1}$	4.9363 (3.7559)		-0.7017 (0.5285)		-0.1917*** (0.0689)	-0.1862*** (0.0639)	-7.6667*** (2.3614)	-7.6667*** (2.3226)
$SAME\ DATE_t$	107.613 (81.0086)		-9.6818 (11.3724)		-0.9934 (0.5838)		-87.4674 (58.3390)	
$ALIGNMENT_t$	-27.2876 (23.6505)		10.9507** (4.7207)	12.0725** (4.8271)	-0.1091 (0.2794)		95.0620*** (24.8022)	93.2446*** (25.6394)
$FEDERAL\ INTERVENTION_t$	-34.0097 (42.2334)		19.6454*** (5.5525)	17.0337*** (5.8134)	2.7151** (1.0495)	2.6203** (1.0750)	154.1719*** (42.2783)	144.7131*** (43.3356)
Constant	-298.398 (418.544)	-39.2482 (308.1851)	-164.617*** (49.3998)	-180.596*** (42.8683)	5.0834** (2.0133)	4.7992*** (1.4588)	124.8768** (155.364)	198.6117* (113.0647)
R^2 within	0.6433	0.6359	0.8552	0.8540	0.4395	0.4384	0.3061	0.3003
R^2 between	0.9244	0.9440	0.8959	0.8940	0.8785	0.8716	0.0880	0.0948
R^2 overall	0.8789	0.8940	0.8509	0.8501	0.5522	0.5502	0.2509	0.2577

Note: standard errors in parenthesis below coefficient. *** Significant at .01. ** Significant at .05. * Significant at .10. Observations (N)= 506.

Table A4. What is the source of PBC in Argentina? The role of VFI. Robustness Check. Estimation Method: OLS with fixed-effects. Robust Standard Errors

Variable	Dependent Variables							
	Expenditures per capita		Local Revenues per capita		Ratio Current Expenditures to Direct Investment		Budget Result per capita	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
$EXPENDITURE_{t-1}$	0.7854*** (0.0748)	0.7758*** (0.0768)						
$REVENUES_{t-1}$			0.6083*** (0.0576)	0.6243*** (0.0550)				
$BUDGET\ RESULT_{t-1}$	0.5331*** (0.1551)	0.4965*** (0.1571)	0.0358** (0.0144)	0.0386*** (0.0135)	-0.0032 *** (0.0009)	-0.00327*** (0.0009)	0.3822*** (0.0436)	0.3931*** (0.0424)
$EXPENDMIX_{t-1}$					0.5854*** (0.0367)	0.5903*** (0.0361)		
ELECTION YEAR _t	-429.245 (270.494)	-377.3629 (270.2268)	-10.1393 (35.1470)	-11.9191 (35.1039)	-13.8922 *** (4.2792)	-14.4423** (4.2478)	108.3412 (200.5743)	109.3773 (200.6164)
VFI _t	-11.7413* (6.6836)	-9.8893* (5.6491)	-10.0191*** (0.8439)	-10.0218*** (0.8433)	-0.2084** (0.0960)	-0.2003** (0.0938)	9.0476** (4.5487)	8.3088* (4.4983)
VFI _t * ELECTION YEAR _t	6.1416* (3.2218)	5.5195* (3.2159)	0.1283 (0.4186)	-0.1430 (0.4182)	0.1508 *** (0.0509)	0.1578*** (0.0505)	-2.1375 (2.3889)	-2.132 (2.3895)
GDP per capita _{t-1}	1.7866** (0.6822)	1.8226** (0.7058)	0.4194*** (1.3334)	0.4064*** (0.1356)	-0.0006 (0.0042)		0.21805 (0.1983)	
Rate of Growth of GDP per capita _t	4.7896*** (1.3289)	3.8116*** (1.2701)	1.0721*** (0.2445)	1.1569*** (0.2430)	-0.1209 *** (0.0260)	-0.1198*** (0.0249)	3.2263*** (1.2345)	3.5580*** (1.1974)
INFANT MORTALITY RATE _{t-1}	4.9359 (3.6914)		-0.7012 (0.5282)		-0.1845 *** (0.0498)	-0.1745*** (0.0484)	-7.6740*** (2.2643)	-7.8520*** (2.2590)
SAME DATE _t	115.5006 (80.9864)		-9.5217 (11.6381)		-0.7974 (1.0686)		-90.1418* (50.7553)	-86.5015* (50.6584)
ALIGNMENT _t	-28.8751 (23.5434)		10.9199** (4.6901)	12.0422 (4.8094)	-0.1462 (0.5626)		95.5766*** (22.7264)	96.0112*** (26.7295)
FEDERAL INTERVENTION _t	-51.3090 (45.3482)		19.2835*** (5.6734)	16.6465*** (5.7664)	2.2293 (1.9234)		160.2012* (91.0944)	158.5461* (91.1020)
Constant	-314.9568 (418.9032)	-178.7619 (344.858)	-164.9943*** (49.7247)	-186.019*** (43.1535)	25.1726*** (8.2805)	23.9405*** (7.6774)	-773.5897** (387.9971)	-635.529* (367.2043)
R ² within	0.6460	0.6398	0.8553	0.8541	0.4498	0.4475	0.3073	0.3055
R ² between	0.9257	0.9246	0.8960	0.8941	0.8886	0.8837	0.0940	0.1611
R ² overall	0.8804	0.8783	0.8511	0.8502	0.5629	0.5602	0.2543	0.2813

Note: standard errors in parenthesis below coefficient. *** Significant at .01. ** Significant at .05. * Significant at .10. Observations (N)= 506.

Table A5. Exploring the link between a narrow definition of vertical fiscal imbalance (discretionary transfers as percentage of total district revenues) and elections

Variable	Dependent Variables	
	Vertical Fiscal Imbalance (Narrow)	
	(1)	(2)
$FVI_{t-1} \text{ (narrow)}$	0.5250*** (0.0389)	0.5336*** (0.0391)
$BUDGET\ RESULT_{t-1}$	0.0001 (0.0009)	
$ELECTION\ YEAR_t$	0.4620* (0.2453)	0.4777** (0.2426)
$GDP\ per\ capita_{t-1}$	0.0060 (0.0043)	0.0075* (0.0045)
$Rate\ of\ Growth\ of\ GDP\ per\ capita_t$	0.0129 (0.0166)	
$INFANT\ MORTALITY\ RATE_{t-1}$	-0.1180*** (0.0368)	-0.1301*** (0.0317)
$SAME\ DATE_t$	0.8511* (0.5060)	0.6935 (0.5004)
$ALIGNMENT_t$	1.1001** (0.4333)	1.1548*** (0.4301)
$FEDERAL\ INTERVENTION_t$	0.0201 (1.1179)	
Constant	3.3950* (1.7719)	3.0246 (1.8980)
Test that average autocovariance in residuals of order 1 is 0. $Pr>z=$	0.0002	0.0003
Test that average autocovariance in residuals of order 2 is 0. $Pr>z=$	0.2011	0.1920