

# Online Appendix

## Summary Statistics

Table A1: Descriptive Statistics

Variable	Variation	N	Mean	St. Dev.	Min	Max
Budget balance	overall	4,658	-0.04	0.07	-0.64	0.28
	between	138		0.05	-0.33	0.07
	within	35.02		0.05	-0.55	0.28
Government spending	overall	4,445	2,791.60	4,442.69	13.02	23,016.32
	between	134		4,087.35	80.50	14,224.3
	within	33.17		1,600.40	-7,198.84	12,233.74
Election	overall	6,532	0.14	0.34	0	1
	between	142		0.084	0	0.33
	within	46		0.33	-0.20	1.12
Winmargin	overall	6,543	3.68	16.37	0.00	100.00
	between	142		3.93	0	17.40
	within	46.08		15.87	-13.72	101.41
GDP p.c. (logged)	overall	5,823	8.18	1.29	4.76	10.84
	between	136		1.22	5.75	10.30
	within	42.82		0.36	6.48	10.73
Growth	overall	5,710	0.02	0.07	-0.65	1.22
	between	136		0.02	-0.02	0.11
	within	41.99		0.07	-0.07	1.13
Tax revenues/GDP	overall	3,846	0.21	0.11	0.01	0.57
	between	124		0.10	0.03	0.46
	within	31.016		0.04	0.02	0.56
Rents p.c. (logged)	overall	5,694	2.42	3.99	-4.61	9.92
	between	140		3.67	-4.61	7.61
	within	40.67		1.57	-7.16	12.03
Aid p.c. (logged)	overall	6,399	2.45	2.01	-6.03	6.92
	between	138		1.65	0	5.72
	within	46.37		1.02	-7.25	5.97
Debt service	overall	4,474	3.68	5.12	0.00	138.89
	between	126		3.22	0.07	15.43
	within	35.51		4.03	-11.70	131.92
IMF	overall	7,153	0.18	0.38	0	1
	between	142		0.16	0	0.61
	within	50.37		0.35	-0.43	1.16
Tenure	overall	5,433	7.17	7.38	1	46
	between	141		4.19	1.43	23.78
	within	38.53		5.99	-15.61	32.99

Urbanization	overall	7,008	45.66	23.11	2.00	100.00
	between	138		21.81	5.53	100
	within	50.78		7.74	5.59	76.70
Dependency ratio	overall	7,008	41.49	6.51	26.41	53.00
	between	138		5.66	32.22	50.402
	within	50.78		3.27	25.88	54.41
Endogenous elections	overall	7,178	0.06	0.23	0	1
	between	142		0.05	0	0.29
	within	50.55		0.22	-0.24	1.04
Minority government	overall	4,873	0.02	0.14	0	1
	between	142		0.13	0	0.76
	within	34.32		0.11	-0.74	1.00
Trade	overall	5,825	67.19	44.14	1.96	453.44
	between	136		39.45	13.63	338.86
	within	42.83		20.47	-37.57	220.88
Parcomp	overall	5,969	2.89	1.57	0	5
	between	141		1.28	0	5
	within	42.33		0.90	-0.13	5.44
Xconst	overall	5,969	4.28	2.33	1	7
	between	141		1.87	1	7
	within	42.33		1.41	-0.96	9.00
Party bans	overall	11,776	2.65	1.55	0	4
	between	164		1.15	0	4
	within	85.22		1.14	-1.25	6.47

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Table A2: List of Included Countries

Country	Polity (min)	Polity (max)
Afghanistan	-10	-7
Albania	-9	9
Algeria	-9	2
Argentina	-9	8
Armenia	-6	7
Australia	10	10
Austria	10	10
Azerbaijan	-7	1
Bangladesh	-7	8
Belarus	-7	7
Belgium	8	10
Benin	-7	7
Bolivia	-7	9
Botswana	6	8
Brazil	-9	8
Bulgaria	-7	9
Burkina Faso	-7	5
Burundi	-7	6
Cambodia	-9	2
Cameroon	-8	-4
Canada	10	10
Central African Republic	-7	5
Chad	-9	-2
Colombia	7	9
Comoros	-7	9
Congo	-8	5
Costa Rica	10	10
Cote d'Ivoire	-9	4
Croatia	-5	9
Cuba	-7	-7
Cyprus	7	10
Czech Republic	8	10
Czechoslovakia	-7	8
Democratic Republic of Congo	-9	5
Denmark	10	10
Djibouti	-8	2
Dominican Republic	-9	8
Ecuador	-5	9
Egypt	-7	-3
El Salvador	-6	8
Equatorial Guinea	-7	2
Estonia	6	9
Ethiopia	-9	-7
Fiji	-4	9
Finland	10	10
France	5	9
Gabon	-9	3
Gambia	-7	8
Georgia	4	7
Germany	10	10
Ghana	-9	8

Greece	-7	10
Guatemala	-7	8
Guinea	-9	5
Guinea-Bissau	-8	6
Haiti	-10	7
Honduras	-1	7
Hungary	-7	10
India	7	9
Indonesia	-7	8
Iran	-10	3
Ireland	10	10
Israel	9	10
Italy	10	10
Jamaica	9	10
Japan	10	10
Kazakhstan	-6	-3
Kenya	-7	8
Korea	-9	8
Kyrgyz Republic	-3	7
Laos	-7	-1
Latvia	8	8
Lebanon	2	7
Lesotho	-9	9
Liberia	-7	6
Lithuania	10	10
Macedonia (FYROM)	6	9
Madagascar	-6	9
Malawi	-9	6
Malaysia	1	10
Mali	-7	7
Mauritania	-7	4
Mauritius	9	10
Namibia	6	6
Moldova	5	8
Mongolia	-7	10
Mozambique	-8	5
Myanmar (Burma)	-8	8
Nepal	-10	6
Netherlands	10	10
New Zealand	10	10
Nicaragua	-8	9
Niger	-7	8
Nigeria	-7	8
North Korea	-9	-8
Norway	10	10
Pakistan	-7	8
Panama	-8	9
Papua New Guinea	4	4
Paraguay	-9	8
Peru	-7	9
Philippines	-9	8
Poland	-8	10
Portugal	-9	10
Romania	-8	9
Russia	3	6

Rwanda	-7	-3
Senegal	-7	8
Serbia (Yugoslavia)	-7	-5
Sierra Leone	-7	7
Singapore	-2	7
Slovak Republic	7	10
Slovenia	10	10
Somalia	-7	7
South Africa	4	9
South Yemen	-8	-5
Spain	-7	10
Sri Lanka	4	8
Sudan	-7	7
Sweden	10	10
Switzerland	10	10
Syria	-9	-2
Taiwan	-8	10
Tajikistan	-6	-1
Tanzania	-6	-1
Thailand	-7	9
Togo	-7	-2
Trinidad and Tobago	8	10
Tunisia	-9	-3
Turkey	-5	9
Turkmenistan	-9	-8
Uganda	-7	7
Ukraine	5	7
United Kingdom	10	10
United States	10	10
Uruguay	-8	10
Uzbekistan	-9	-9
Venezuela	-3	9
Yemen	-6	0
Zambia	-9	7
Zimbabwe	-6	4

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## Varying Thresholds for Competition and Constraints

To test the sensitivity of our measures of competition and constraints to varying thresholds, we run four sets of additional regressions. In all four sets, shown in Tables A3 to A6, the first column uses the original thresholds discussed in the article. In the first set, the minimum threshold for competition is raised by one unit from a *Parcomp* level of 2 to 4 and we explore the effect of this change on the subsample of countries below this threshold, that is, countries that do not meet the competition threshold and in which PBCs did not occur. Moving the threshold upward means that the sample of countries falling below the threshold increases in size and includes an increasing number of more competitive polities with every shift of the threshold. Given that, the expectation is that the coefficients of *Election* and *Election\*Winmargin* will gradually approach conventional levels of statistical significance. Moreover, the sign of *Election\*Winmargin* should turn and we should start to see a positive counter-effect as win-margins increase. This is exactly what we see in Table A3.

In the second set of regressions, the maximum threshold of constraints is lowered from *Xconst* levels of 6 to 3 and we examine the effect of this change on the subsample of countries above threshold, that is, countries in which PBCs did not occur because constraints on the executive were too high. As before, the sample size is increased with every unit change in *Xconst*, adding polities with increasingly fewer constraints on the executive to the subsample. The effect should be similar to the first set, i.e., p-values of coefficients should decrease and there should be a sign change in the coefficient of *Election\*Winmargin*, indicating that higher win-margins and thus lower

competitiveness decrease the incumbent's incentives to manipulate the budget. Table A4 presents evidence for such an effect. The p-values on the *Election* coefficient fall from 0.81 to 0.45; if we take out OECD countries, the p-value in Model 4 even drops to 0.16.<sup>1</sup> The effect on the p-values of the interaction term are less linear, although it is important to realize that increasing the minimal threshold of competition adds more countries with higher constraint levels, whereas lowering the maximum threshold for constraints adds increasingly uncompetitive countries. This explains why neither *Election* nor *Election\*Winmargin* reach conventional levels of significance in Tables A3 and A4.

In the third set of regressions, we lower the minimum threshold for competition from a *Parcomp* level of 3 to 1 while holding the *Xconst* threshold constant at 6, and test the effect of this change on the subsample of countries in between both thresholds, that is, countries in which PBCs did occur. Doing so, we expand the subsample by adding increasingly uncompetitive polities, which should increase the p-values of our variables of interest and drive *Election* and/or *Election\*Winmargin* out of areas of statistical significance. Considering the results in Table A5, this is exactly what happens.

In the fourth set of regression, the maximum threshold for constraints is raised from *Xconst* levels of 5 to 7, holding the minimum threshold of competition constant. Again, we are interested in the effect of this shift on the subsample in-between both thresholds, expecting that such a change considerably reduces the significance levels of our variables of interest as more countries with higher levels of constraints are

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<sup>1</sup> Results are available upon request.

added to the subsample. The results displayed in Table A6 clearly confirm our theoretical expectation.



Table A3: Raising the Minimum Threshold for Competition

	(1)	(2)	(3)
	$Parcomp < 3$	$Parcomp < 4$	$Parcomp < 5$
Budget balance $t_{-1}$	0.566*** (0.000)	0.598*** (0.000)	0.607*** (0.000)
Election	-0.005 (0.400)	-0.004 (0.334)	-0.005 (0.123)
Election*Winmargin	-0.0001 (0.699)	-0.00002 (0.837)	0.00004 (0.593)
GDP p.c. (logged)	0.020* (0.087)	0.008 (0.297)	0.004 (0.514)
Growth	0.036 (0.102)	0.045** (0.019)	0.057*** (0.002)
Tax revenues/GDP	0.047 (0.482)	0.038 (0.457)	0.044 (0.363)
Rents p.c. (logged)	0.001 (0.174)	0.0005 (0.493)	0.0003 (0.661)
Aid p.c. (logged)	-0.011*** (0.008)	-0.008*** (0.010)	-0.008*** (0.004)
Debt service	-0.0003 (0.662)	0.00005 (0.850)	0.0002 (0.406)
IMF	0.003 (0.314)	0.003 (0.234)	0.002 (0.349)
Tenure	0.0001 (0.744)	0.00001 (0.966)	-0.0001 (0.801)
Observations	1,013	1,449	1,851

*Note:* Autoregressive OLS model with country and year fixed effects.

P-values in parentheses. Constant and FE coefficients omitted from table.

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table A4: Lowering the Maximum Threshold for Constraints

	(1)	(2)	(3)	(4)
	$X_{const>5}$	$X_{const>4}$	$X_{const>3}$	$X_{const>2}$
Budget balance $t_{-1}$	0.605*** (0.000)	0.577*** (0.000)	0.571*** (0.000)	0.589*** (0.000)
Election	0.0003 (0.807)	-0.001 (0.658)	-0.001 (0.570)	-0.001 (0.448)
Election*Winmargin	-0.0001 (0.154)	-0.00001 (0.892)	-0.00004 (0.625)	-0.00002 (0.824)
GDP p.c. (logged)	0.006 (0.613)	0.001 (0.880)	0.003 (0.678)	0.005 (0.497)
Growth	0.119*** (0.0001)	0.089*** (0.0003)	0.091*** (0.0002)	0.103*** (0.0004)
Tax revenues/GDP	0.176*** (0.00001)	0.170*** (0.0005)	0.160*** (0.001)	0.099** (0.044)
Rents p.c. (logged)	0.001 (0.507)	0.001 (0.402)	0.001 (0.535)	0.001 (0.543)
Aid p.c. (logged)	-0.00004 (0.966)	-0.002 (0.154)	-0.001 (0.178)	-0.003* (0.069)
Debt service	0.001** (0.026)	0.001** (0.013)	0.001** (0.012)	0.001*** (0.009)
IMF	0.002 (0.580)	-0.003 (0.397)	-0.003 (0.374)	0.003 (0.221)
Tenure	0.0002 (0.533)	-0.0003 (0.545)	-0.0003 (0.478)	-0.0002 (0.497)
Observations	1,101	1,370	1,442	1,888

*Note:* Autoregressive OLS model with country and year fixed effects. P-values in parentheses. Constant and FE coefficients omitted from table.

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table A5: Lowering the Minimum Threshold for Competition

	(1)	(2)	(3)
	$Parcomp > 2$	$Parcomp > 1$	$Parcomp > 0$
	$Xconst < 6$	$Xconst < 6$	$Xconst < 6$
Budget balance $t_{-1}$	0.482*** (0.000)	0.527*** (0.000)	0.606*** (0.000)
Election	-0.012*** (0.006)	-0.012*** (0.005)	-0.010** (0.026)
Election*Winmargin	0.0003** (0.016)	0.0002 (0.104)	0.0001 (0.204)
GDP p.c. (logged)	0.026 (0.155)	0.019* (0.053)	0.012 (0.160)
Growth	0.070** (0.035)	0.053** (0.015)	0.051** (0.015)
Tax revenues/GDP	0.019 (0.876)	-0.008 (0.932)	0.035 (0.502)
Rents p.c. (logged)	-0.002 (0.264)	-0.001 (0.646)	-0.0001 (0.899)
Aid p.c. (logged)	-0.009 (0.108)	-0.010** (0.017)	-0.009*** (0.007)
Debt service	0.001** (0.026)	0.0004 (0.238)	0.0001 (0.642)
IMF	-0.002 (0.738)	0.0004 (0.916)	0.002 (0.325)
Tenure	-0.001*** (0.010)	-0.0003 (0.389)	-0.0001 (0.761)
Observations	511	909	1,504

*Note:* Autoregressive OLS model with country and year fixed effects.  
P-values in parentheses. Constant and FE coefficients omitted from table.  
\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table A6: Raising the Maximum Threshold for Constraints

	(1)	(2)	(3)
	$X_{const} < 6$	$X_{const} < 7$	$X_{const} < 8$
	$Parcomp > 2$	$Parcomp > 2$	$Parcomp > 2$
Budget balance $t_{-1}$	0.482*** (0.000)	0.476*** (0.000)	0.565*** (0.000)
Election	-0.012*** (0.006)	-0.007 (0.115)	-0.002 (0.191)
Election*Winmargin	0.0003** (0.016)	0.0002* (0.074)	0.00001 (0.879)
GDP p.c. (logged)	0.026 (0.155)	0.010 (0.454)	0.0002 (0.982)
Growth	0.070** (0.035)	0.091*** (0.005)	0.099*** (0.0003)
Tax revenues/GDP	0.019 (0.876)	0.112 (0.340)	0.114** (0.029)
Rents p.c. (logged)	-0.002 (0.264)	-0.001 (0.466)	0.0001 (0.906)
Aid p.c. (logged)	-0.009 (0.108)	-0.007** (0.025)	-0.001 (0.215)
Debt service	0.001** (0.026)	0.001** (0.031)	0.001*** (0.004)
IMF	-0.002 (0.738)	-0.0001 (0.989)	0.001 (0.792)
Tenure	-0.001*** (0.010)	-0.001** (0.022)	-0.0003 (0.310)
Observations	511	686	1,612

*Note:* Autoregressive OLS model with country and year fixed effects.

P-values in parentheses. Constant and FE coefficients omitted from table.

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

## Triple Interaction Terms as Alternative to Sub-Samples

As an alternative to our sub-sample strategy, we also provide two models with a triple interaction between *Election*, *Winmargin*, and *Parcomp/Xconst*. When including the triple interaction with *Parcomp*, we only include countries with  $Xconst < 6$ ; conversely, when running the model with *Xconst*, we only include countries with  $Parcomp > 2$ . Granted, this still leaves some sample restriction in place, but the alternative – a four-way interaction term – is barely comprehensible and hardly manageable with the limited number of observations at hand. That said, the three-way interaction at least allows one of the two variables to range freely across all its levels, alleviating the concern that our findings are driven by our “slicing” of the data into sub-samples.

The results of this exercise are shown in Figures A1 and A2 below. As three-way interactions are best interpreted graphically, we refrain from showing the coefficients tables, which are available upon request. The graphs follow the suggestions by Brambor et al. (2006) for three-way interaction terms. This means that significant interactions are shown as solid lines, whereas insignificant interactions are shown as dotted lines. Please also note that in the case of *Xconst*, we only show levels 1, 2, 5, and 7 to keep the graph manageable.

Substantively, we find both graphs to be very much in line with the main argument of this paper. Regarding Figure A1, the graph shows no significant effect of win-margin on the budget balance in political systems with no or highly restrictive political competition (*Parcomp* levels 1 and 2). Beyond that threshold, the marginal effect of win-margin grows in size as competition increases from levels 3 to 5, and

it does so rather linearly, suggesting no particular non-linear effect for  $Parcomp=3$  in our sample. As for Figure A2, we find no significant effect of win-margin at constraint levels of  $Xconst=7$  (and 6; not shown). Below that threshold, the marginal effect increases as the constraints on executive power decrease. Taken together, these substantively identical findings suggest that our main findings are not an artefact of our sub-sample strategy.

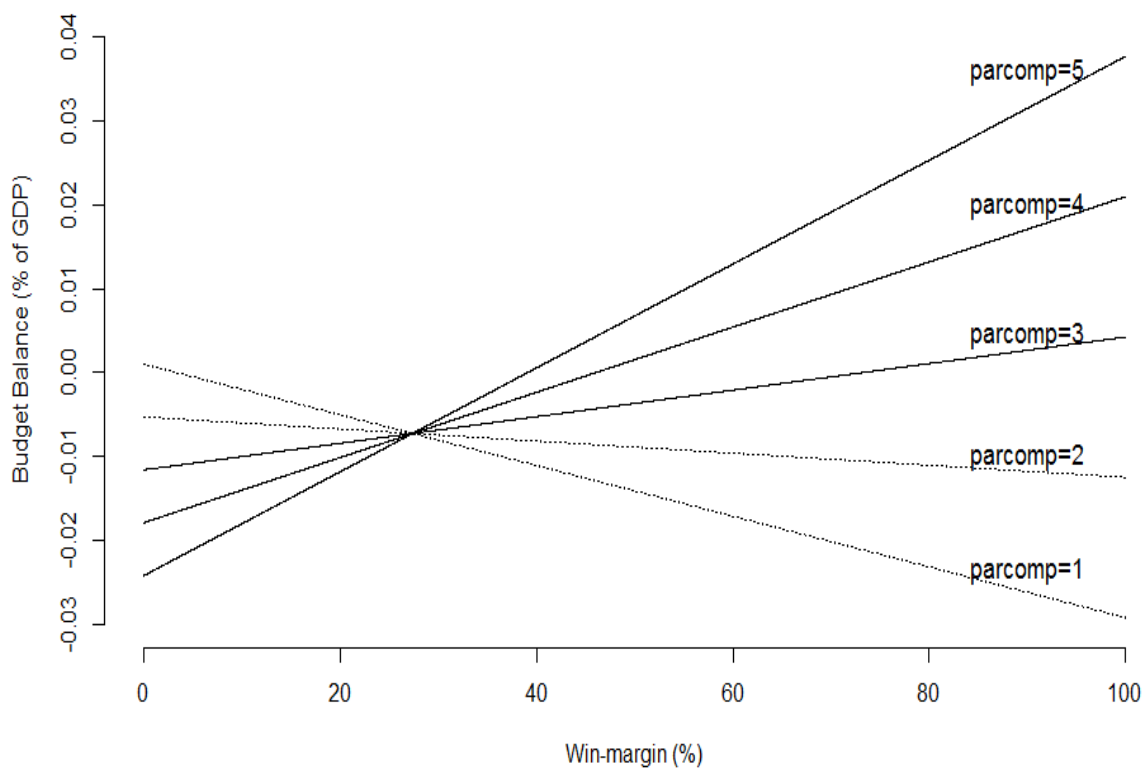


Figure A1: Marginal Effect of Win-margin on Budget Balance, Conditional upon *Election* and *Parcomp*

*Note:* Solid lines represent significant marginal effects; dotted lines insignificant ones.

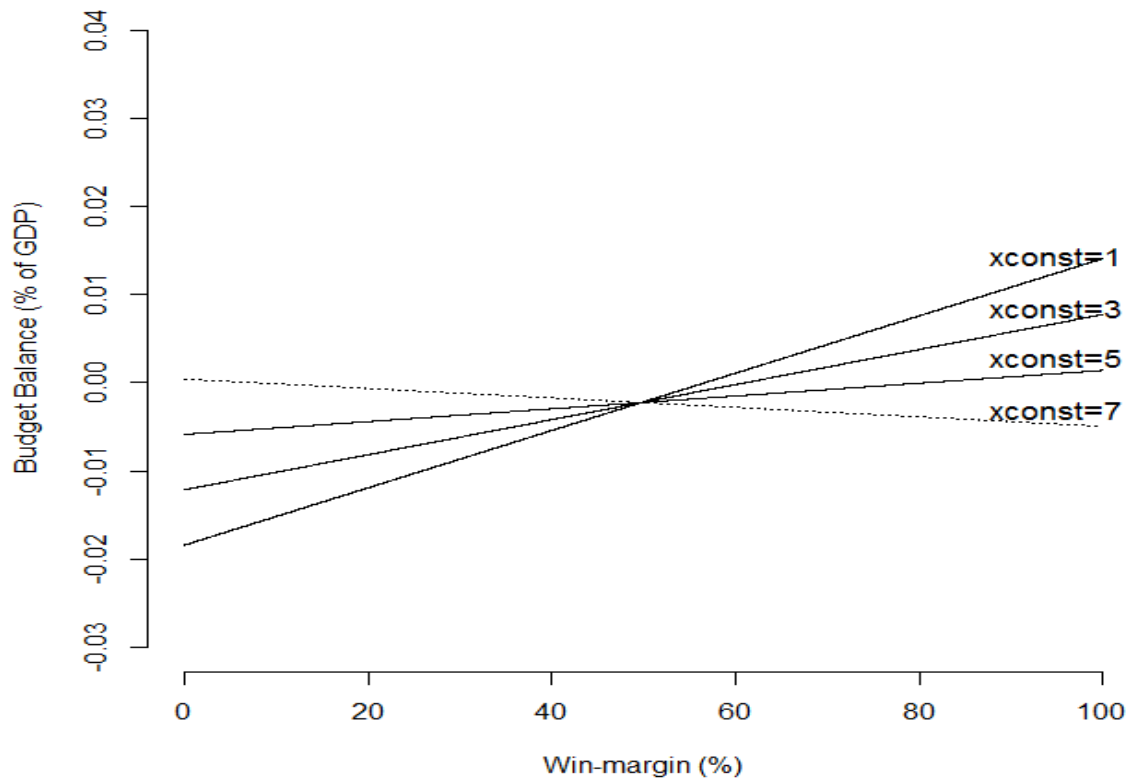


Figure A2: Marginal Effect of Win-margin on Budget Balance, Conditional upon *Election* and *Xconst*

*Note:* Solid lines represent significant marginal effects; dotted lines insignificant ones.

## **Different Model Specifications**

To test the robustness of our findings to different model specification, we carry out three kinds of modifications of our base model. First, we drop year fixed effects; second, we run a model without country fixed effects; third, we test a random effects model. The results of this exercise are shown in Table A7 below. None of the changes has any significant effect on our main findings.



Table A7: Different Model Specifications

	(1)	(2)	(3)
	<i>Country FEs only</i>	<i>Year FEs only</i>	<i>Random effects</i>
Budget balance $t_{-1}$	0.502*** (0.054)	0.726*** (0.072)	0.811*** (0.026)
Election	-0.011** (0.005)	-0.016*** (0.006)	-0.013** (0.006)
Election*Winmargin	0.0003** (0.0001)	0.0003** (0.0001)	0.0002* (0.0001)
GDP p.c. (logged)	0.023 (0.019)	0.004 (0.003)	0.006*** (0.002)
Growth	0.073** (0.037)	0.079** (0.033)	0.083*** (0.024)
Tax revenues/GDP	0.050 (0.142)	-0.023 (0.038)	-0.008 (0.024)
Rents p.c. (logged)	-0.002 (0.001)	0.001 (0.001)	0.0003 (0.0003)
Aid p.c. (logged)	-0.010** (0.005)	-0.002 (0.003)	0.001 (0.002)
Debt service	0.001** (0.0004)	-0.0002 (0.0003)	-0.0003 (0.0003)
IMF	-0.0002 (0.005)	0.0002 (0.005)	0.003 (0.003)
Tenure	-0.001* (0.001)	-0.0002 (0.0003)	-0.00001 (0.0002)
Observations	511	511	458

*Note:* Autoregressive OLS models. Robust standard errors in parentheses.

Constant and FE coefficients omitted from table.

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

## **Additional Control Variables**

Following common practice, we add a number of additional control variables to see whether our results withstand these modifications. More specifically, we add urbanization, the dependency ratio, a dummy for endogenous elections and minority governments, as well as trade to the base model. Please note that the coefficients of the control variables in our base model are not reproduced due to a lack of space. In the light of the results shown in Table A8, the main findings appear very robust to these changes.

Table A8: Additional Controls Variables

	(1)	(2)	(3)	(4)	(5)
Budget balance $t_{-1}$	0.480*** (0.060)	0.480*** (0.060)	0.465*** (0.056)	0.464*** (0.055)	0.451*** (0.057)
Election	-0.012*** (0.004)	-0.012*** (0.004)	-0.012** (0.006)	-0.013** (0.006)	-0.013** (0.006)
Election*Winmargin	0.0003** (0.0001)	0.0003** (0.0001)	0.0003** (0.0001)	0.0003** (0.0001)	0.0003** (0.0001)
Urbanization	0.002 (0.002)	0.002 (0.002)	0.002 (0.002)	0.002 (0.002)	0.002 (0.002)
Dependency ratio		0.00001 (0.001)	-0.0002 (0.001)	-0.0003 (0.001)	-0.001 (0.001)
Endogenous elections			-0.004 (0.008)	-0.006 (0.008)	-0.005 (0.008)
Minority government				0.005 (0.011)	0.003 (0.011)
Trade					-0.0002 (0.0002)
Observations	511	511	487	481	481

*Note:* Autoregressive OLS model with country and year fixed effects. Robust standard errors in parentheses. Constant, FE coefficients, and standard controls omitted from table.

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

### **Presidential Elections Only**

Since our measure of competitiveness, that is, past win-margins, might be inconsistent across legislative elections due to different voting systems (FPTP vs. proportional), we rerun our base model with presidential elections only. All substantive findings remain unchanged (see Table A9).

Table A9: Presidential Elections Only

Budget balance $t_{-1}$	0.483*** (0.069)
Election	-0.010*** (0.004)
Election*Winmargin	0.0002* (0.0001)
GDP p.c. (logged)	0.027 (0.019)
Growth	0.071** (0.034)
Tax revenues/GDP	0.018 (0.119)
Rents p.c. (logged)	-0.002 (0.001)
Aid p.c. (logged)	-0.009 (0.006)
Debt service	0.001** (0.0003)
IMF	-0.002 (0.006)
Tenure	-0.001** (0.001)
Observations	511

*Note:* Autoregressive OLS model with country and year fixed effects. Robust standard errors in parentheses. Constant and FE coefficients omitted from table.

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

### **Continuous Measure of Winmargin**

We also test a continuous measure of win-margin where we carry the past win-margin forward until the year of the next election. Theoretically, electoral competitiveness should have no effect on budget deficits outside the context of impending elections. We therefore expect the non-interacted base term of *Winmargin* to be statistically insignificant, while the interacted part should remain significant. The results shown in Table A10 below confirm our expectations.

Table A10: Table 12: Continuous Measure of Winmargin

Budget balance $t_{-1}$	0.484*** (0.068)
Election	-0.012*** (0.004)
Winmargin	0.0001 (0.0001)
Election*Winmargin	0.0003** (0.0001)
GDP p.c. (logged)	0.024 (0.018)
Growth	0.071** (0.033)
Tax revenues/GDP	0.024 (0.117)
Rents p.c. (logged)	-0.001 (0.001)
Aid p.c. (logged)	-0.009* (0.005)
Debt service	0.001** (0.0003)
IMF	-0.002 (0.006)
Tenure	-0.001*** (0.001)
Observations	510

*Note:* Autoregressive OLS model with country and year fixed effects. Robust standard errors in parentheses. Constant and FE coefficients omitted from table.

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

## Excluding Founding Elections

Recall that we coded  $Winmargin=0$  in the case of founding elections and elections after an autocratic interlude. This was motivated by the assumption that in these elections incumbents have very little information to gauge their re-election prospect and are thus particularly insecure. However, we acknowledge that this is consequential choice and we therefore rerun our regression without these founding elections. In view of the results shown in Table A11, it is safe to say that our findings are not driven by our coding choice.



Table A11: Model without Founding Elections

Budget balance $t_{-1}$	0.473*** (0.062)
Election	-0.008** (0.003)
Election*Winmargin	0.0002* (0.0001)
GDP p.c. (logged)	0.013 (0.016)
Growth	0.063** (0.030)
Tax revenues/GDP	0.150 (0.104)
Rents p.c. (logged)	-0.0005 (0.001)
Aid p.c. (logged)	-0.009* (0.005)
Debt service	0.001** (0.0002)
IMF	-0.004 (0.005)
Tenure	-0.001** (0.0004)
Observations	497

*Note:* Autoregressive OLS model with country and year fixed effects. Robust standard errors in parentheses. Constant and FE coefficients omitted from table.

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

## **First-round Win-margins for Presidential Elections**

As an additional robustness test, we use the the first-round results of presidential elections instead of the second round whenever elections comprised two rounds. Whenever the later winner was not the leading candidate and the win-margin would thus be negative, we set code it as 0. Results are available in Table A12 and are robust to this alternative coding of presidential elections.

Table A12: Model with First-round Presidential Elections Win-margin

Budget balance $t_{-1}$	0.482*** (0.068)
Election	-0.012*** (0.004)
Election*Winmargin	0.0003** (0.0001)
GDP p.c. (logged)	0.027 (0.019)
Growth	0.070** (0.033)
Tax revenues/GDP	0.018 (0.119)
Rents p.c. (logged)	-0.001 (0.001)
Aid p.c. (logged)	-0.009 (0.006)
Debt service	0.001** (0.0003)
IMF	-0.002 (0.006)
Tenure	-0.001*** (0.001)
Observations	511

*Note:* Autoregressive OLS model with country and year fixed effects. Robust standard errors in parentheses. Constant and FE coefficients omitted from table.

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

## Alternative Indicator for *Parcomp*

Although we found no evidence for non-linear effects of *Parcomp* in a previous robustness tests, we acknowledge that the coding of *Parcomp*=3 as “factional party competition” is qualitatively different from the other levels of the variable. We therefore replicate our model using *Party bans* as an alternative indicator for political competition. Taken from Coppedge et al. (2015), the variable measures the extent to which political parties are banned and, by extension, political competition is restricted. Using this variable, we rerun our model excluding countries in which opposition parties are completely, frequently, or sometimes banned (*Party bans* <4). The results are shown in Table A13 are substantively very similar to our standard estimates using *Parcomp*.

Table A13: Alternative Indicator for Parcomp: Party Bans

	(1) <i>Party bans</i> <4	(2) <i>Party bans</i> <4	(3) <i>Xconst</i> >5	(4) <i>Xconst</i> >5	(5) <i>Party bans</i> >3 <i>Xconst</i> <6	(6) <i>Party bans</i> >3 <i>Xconst</i> <6
Budget balance $t_{-1}$	0.587*** (0.042)	0.587*** (0.042)	0.606*** (0.066)	0.605*** (0.066)	0.499*** (0.077)	0.499*** (0.077)
Election	-0.006 (0.004)	-0.004 (0.007)	-0.001 (0.001)	0.0003 (0.001)	-0.004 (0.003)	-0.010** (0.004)
Election*Winmargin		-0.0001 (0.0001)		-0.0001 (0.0001)		0.0002** (0.0001)
GDP p.c. (logged)	0.007 (0.009)	0.008 (0.009)	0.006 (0.011)	0.006 (0.011)	0.018 (0.016)	0.018 (0.016)
Growth	0.041** (0.021)	0.041** (0.021)	0.118*** (0.030)	0.119*** (0.030)	0.065** (0.027)	0.064** (0.027)
Tax revenues/GDP	0.026 (0.066)	0.025 (0.066)	0.178*** (0.040)	0.176*** (0.039)	0.063 (0.107)	0.065 (0.106)
Rents p.c. (logged)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.0003 (0.001)	0.0002 (0.001)
Aid p.c. (logged)	-0.010*** (0.004)	-0.010*** (0.004)	-0.0002 (0.001)	-0.00004 (0.001)	-0.008** (0.004)	-0.008** (0.004)
Debt service	-0.0002 (0.001)	-0.0002 (0.001)	0.001** (0.001)	0.001** (0.001)	0.0003 (0.0003)	0.0003 (0.0003)
IMF	0.002 (0.003)	0.002 (0.003)	0.001 (0.003)	0.002 (0.003)	0.001 (0.006)	0.002 (0.006)
Tenure	-0.0001 (0.0003)	-0.0001 (0.0003)	0.0002 (0.0003)	0.0002 (0.0003)	-0.001* (0.0004)	-0.001* (0.0004)
Observations	1,026	1,026	1,101	1,101	553	553

*Note:* Autoregressive OLS model with country and year fixed effects. Robust standard errors in parentheses. Constant and FE coefficients omitted from table.

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

## Win-margin Volatility

Given that the nature of political competition and, by extension, the quality of democracy can change over time, past win-margins might not always be a good indicator of competitiveness. Such reversals would entail distorting fluctuations of win-margins with narrow, competitive margins being followed by large margins as a result of less competitive elections. We respond to this challenge in two ways: first, descriptively Figures A3 and A4 suggest that there are no particularly pronounced fluctuations in the win-margins. Figure A4 shows that the vast majority of win-margins changes – that is, the difference between the previous election’s win-margin and the current election’s win-margin – are small, suggesting high levels of competitiveness. Moreover, when analysing the win-margin changes greater than one standard deviation (+/- 25 percent), we find that 50 percent of these changes occur in regimes with Polity scores of 5 and higher on a scale ranging from -10 to 10; 75 percent of these “big” changes occur in regimes with a Polity score of -2 or higher. Taken together, the descriptive pattern shows a relatively smooth trend of win-margins over time, and those cases in which big win-margin shifts occur are mostly on the democratic side of the political spectrum.

Second, we further test the robustness of our findings to win-margin volatility by excluding elections with win-margin changes greater than one standard deviation from the regression. The results of this restricted model, detailed in Table A14, show a weaker, yet substantively similar pattern to our previous findings.

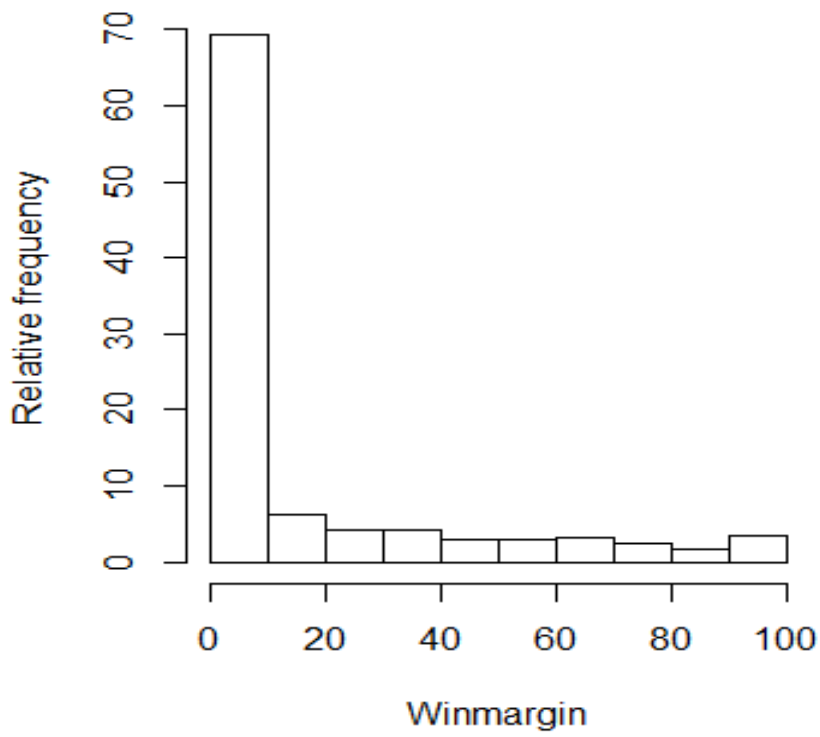


Figure A3: Distribution of *Winmargin*

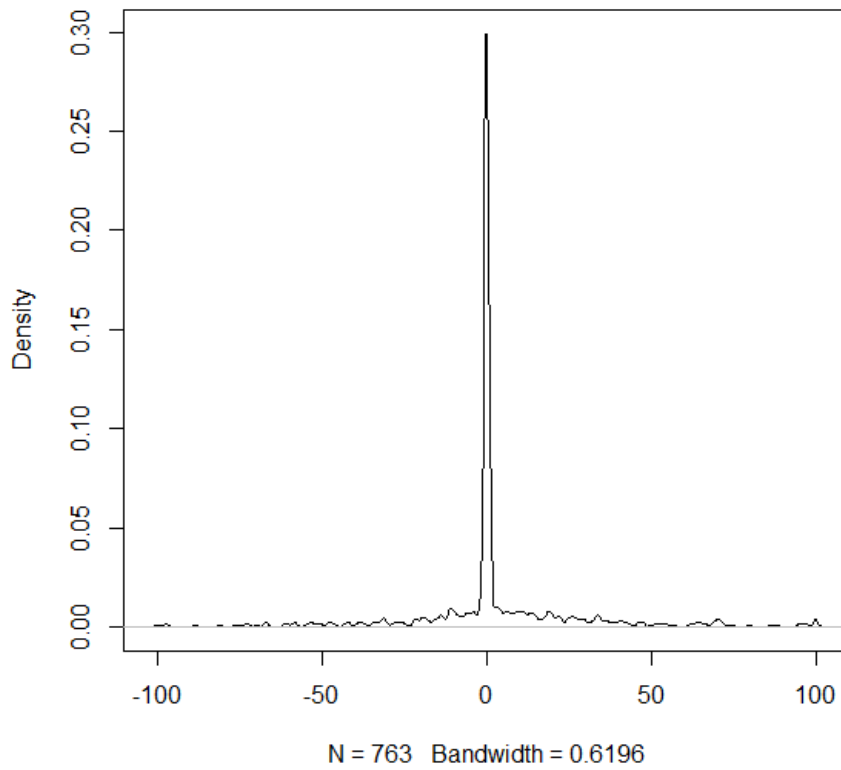


Figure A4: Distribution of Change of Winmargin

Table A14: Model without Big Win-Margin Changes

Budget balance $t-1$	0.491*** (0.068)
Election	-0.008* (0.005)
Election*Winmargin	0.0003* (0.0002)
GDP p.c. (logged)	0.013 (0.016)
Growth	0.074*** (0.027)
Tax revenues/GDP	0.125 (0.119)
Rents p.c. (logged)	-0.001 (0.001)
Aid p.c. (logged)	-0.009* (0.005)
Debt service	0.001*** (0.0002)
IMF	-0.002 (0.005)
Tenure	-0.001*** (0.0005)
Observations	471

*Note:* Autoregressive OLS model with country and year fixed effects. Robust standard errors in parentheses. Constant and FE coefficients omitted from table.

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$



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