

Online Appendices to “Local-Level Democratic Backsliding? The Consolidation of Aspiring Dominant-Party Regimes in Hungary and Poland” by Conor O’Dwyer and Matthew Stenberg in *Government and Opposition*.

Appendix A. Logistic Regression Coefficients (Dependent variable: win by dominant party).

	Model A1	Model A2	Model A3	Model A4	Model A5	Model A6	Model A7	Model A8	Model A9
Population (logged)	-1.129** (0.365)	0.591* (0.277)	-0.216 (0.176)	-0.908* (0.388)	0.637* (0.288)	-0.0697 (0.189)	-0.597 (0.591)	-0.846* (0.396)	-0.715 (0.473)
Unemployment Rate	1.210 (7.087)	-0.496 (3.376)	0.108 (2.560)	1.910 (7.030)	-0.380 (3.398)	0.925 (2.592)	12.41 (11.34)	1.898 (7.106)	8.298 (8.286)
% Over 60 yrs. old	-8.064 (4.514)	2.586 (2.836)	-2.466 (2.143)	-6.756 (4.512)	2.685 (2.859)	-1.892 (2.157)	-9.015 (7.101)	-6.293 (4.543)	-9.894 (5.932)
Cycle Year=2	-0.123 (0.317)	0.116 (0.238)	-0.0649 (0.151)	-0.227 (0.323)	0.121 (0.239)	-0.113 (0.153)	0.133 (0.455)	-0.269 (0.327)	-0.261 (0.413)
Cycle Year=3		-0.108 (0.269)	-0.335 (0.239)		-0.0921 (0.271)	-0.338 (0.239)			
Country=Hungary			1.913*** (0.189)			1.882*** (0.188)			
Dominant Party Incumbent	3.676*** (0.326)	1.915*** (0.240)	2.706*** (0.161)	3.602*** (0.325)	1.892*** (0.243)	2.664*** (0.162)		3.532*** (0.322)	2.680*** (0.419)
Number of Candidates				-0.128 (0.0855)	-0.0480 (0.0723)	-0.106* (0.0497)	-1.000*** (0.237)	-0.588*** (0.178)	-0.0873 (0.112)
Decided in 2nd Round							-2.373* (0.989)	-1.283 (0.746)	
2 nd Round x Number of Candidates							0.858** (0.269)	0.525* (0.204)	
Constant	3.959* (1.790)	-3.073* (1.401)	-0.741 (0.931)	3.287 (1.825)	-3.123* (1.410)	-1.079 (0.947)	3.477 (2.893)	4.119* (1.918)	3.253 (2.168)
Observations	1110	771	1881	1110	771	1881	1110	1110	544

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Appendix B. Suburbs

Appendix B includes a dummy variable to indicate if a municipality is a suburb or not, to see if effects are driven by satellite municipalities tied to the politics of larger cities. If municipalities are listed by the OECD/Eurostat as being in a functional urban area (FUA) but are *not* the core city, then they are coded as 1. Core cities and municipalities outside the OECD/Eurostat's FUAs are coded as 0. The variable itself is not statistically significant and its inclusion has no substantial effects on the size or significance of our variables of interest.

Table B. Logistic Regression Coefficients (Dependent variable: win by dominant party).

	Model B1	Model B2	Model B3	Model B4	Model B5	Model B6	Model B7	Model B8	Model B9
Population (logged)	-1.128** (0.365)	0.557* (0.281)	-0.239 (0.177)	-0.906* (0.388)	0.603* (0.292)	-0.0936 (0.190)	-0.596 (0.591)	-0.844* (0.396)	-0.721 (0.472)
Unemployment Rate	0.787 (7.220)	-1.108 (3.507)	-0.540 (2.622)	1.439 (7.161)	-0.960 (3.533)	0.324 (2.661)	10.61 (11.57)	1.388 (7.242)	7.797 (8.374)
% Over 60 yrs. old	-8.492 (4.731)	1.924 (3.008)	-3.244 (2.263)	-7.220 (4.715)	2.062 (3.037)	-2.600 (2.284)	-10.65 (7.449)	-6.797 (4.756)	-10.58 (6.226)
Cycle Year=2	-0.122 (0.318)	0.145 (0.243)	-0.0461 (0.152)	-0.227 (0.323)	0.148 (0.244)	-0.0947 (0.154)	0.132 (0.456)	-0.269 (0.327)	-0.259 (0.413)
Cycle Year=3		-0.0772 (0.274)	-0.304 (0.241)		-0.0644 (0.276)	-0.310 (0.241)			
Country=Hungary			1.920*** (0.190)			1.889*** (0.189)			
Dominant Party Incumbent	3.676*** (0.326)	1.913*** (0.240)	2.702*** (0.160)	3.601*** (0.326)	1.892*** (0.244)	2.662*** (0.161)		3.531*** (0.322)	2.677*** (0.419)
Number of Candidates				-0.129 (0.0856)	-0.0445 (0.0725)	-0.104* (0.0498)	-1.003*** (0.237)	-0.590*** (0.178)	-0.0863 (0.112)
Suburb	-0.0972 (0.306)	-0.143 (0.220)	-0.177 (0.163)	-0.109 (0.303)	-0.133 (0.222)	-0.156 (0.162)	-0.399 (0.492)	-0.116 (0.305)	-0.148 (0.382)
Decided in 2nd Round							-2.389* (0.990)	-1.292 (0.747)	
2 nd Round x Number of Candidates							0.860** (0.269)	0.526** (0.204)	
Constant	4.091* (1.839)	-2.730 (1.490)	-0.406 (0.978)	3.428 (1.867)	-2.802 (1.502)	-0.773 (0.998)	4.024 (2.978)	4.276* (1.964)	3.485 (2.246)
Observations	1110	771	1881	1110	771	1881	1110	1110	544

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Appendix C. Number of Viable Candidates (receiving over 10% of the vote)

Appendix C replaces the ‘Number of Candidates’ independent variable with a variable counting the number of candidates receiving more than 10% of the vote in the first round, to assess if the effect of number of candidates was skewed by unviable candidates. Effects on our variables of interest are small; however, the number of candidates variable *gains* significance in Models 4 (all Polish elections) and 9 (second round elections only) when limited to viable candidates.

Table C. Logistic Regression Coefficients (Dependent variable: win by dominant party).

	Model C1	Model C2	Model C3	Model C4	Model C5	Model C6	Model C7	Model C8	Model C9
Population (logged)	-1.129** (0.365)	0.591* (0.277)	-0.216 (0.176)	-1.000** (0.367)	0.600* (0.279)	-0.184 (0.178)	-1.066 (0.581)	-1.058** (0.379)	-0.792 (0.437)
Unemployment Rate	1.210 (7.087)	-0.496 (3.376)	0.108 (2.560)	2.575 (7.260)	-0.432 (3.400)	0.828 (2.624)	13.41 (11.94)	2.564 (7.524)	9.188 (8.403)
% Over 60 yrs. old	-8.064 (4.514)	2.586 (2.836)	-2.466 (2.143)	-6.868 (4.622)	2.710 (2.870)	-1.950 (2.189)	-11.32 (7.514)	-7.388 (4.813)	-9.389 (5.989)
Cycle Year=2	-0.123 (0.317)	0.116 (0.238)	-0.0649 (0.151)	-0.220 (0.326)	0.125 (0.240)	-0.0894 (0.153)	0.343 (0.470)	-0.174 (0.338)	-0.221 (0.410)
Cycle Year=3		-0.108 (0.269)	-0.335 (0.239)		-0.107 (0.270)	-0.364 (0.242)			
Country=Hungary			1.913*** (0.189)			1.878*** (0.191)			
Dominant Party Incumbent	3.676*** (0.326)	1.915*** (0.240)	2.706*** (0.161)	3.676*** (0.334)	1.901*** (0.243)	2.685*** (0.163)		3.698*** (0.342)	2.724*** (0.421)
Number of Viable Candidates				-0.384** (0.145)	-0.0611 (0.127)	-0.209* (0.0853)	-1.898*** (0.430)	-1.117*** (0.328)	-0.403* (0.196)
Decided in 2nd Round							-2.191 (1.409)	-0.725 (1.057)	
2 nd Round x Number of Viable Candidates							1.242* (0.509)	0.621 (0.386)	
Constant	3.959* (1.790)	-3.073* (1.401)	-0.741 (0.931)	4.202* (1.804)	-2.983* (1.420)	-0.427 (0.947)	7.035* (3.019)	5.879** (2.000)	4.344* (2.176)
Observations	1110	771	1881	1110	771	1881	1110	1110	544

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Appendix D. Larger cities with list-based Council elections

Larger cities (population over 20,000 in Poland and over 10,000 in Hungary) have different systems for electing City Councils, using party list voting. While mayoral elections are not conducted using party list votes, the use of list votes for council elections could have secondary impacts on mayoral elections by impacting the salience of partisanship. To assess the impact of this additional difference in electoral rules, the models were run again with two different robustness checks. Table D1 includes only cities with populations above this threshold. There are three notable effects of this. First, population loses significance across the models – perhaps unsurprising, given that we only include large municipalities. Second, there is a significant negative effect associated with the 3rd cycle year in Hungary, although dominant party candidates are still more likely to win. Third, the significance of number of candidates decreases; however, its interaction with elections reaching the second round remains significant. This suggests that the absolute number of candidates has a reduced impact in larger municipalities; however, the clarifying effect provided by the second round is still in effect.

Table D1. Logistic Regression Coefficients in cities above party-list threshold (Dependent variable: win by dominant party).

	Model D1	Model D2	Model D3	Model D4	Model D5	Model D6	Model D7	Model D8	Model D9
Population (logged)	-1.010 (0.878)	0.922 (0.485)	0.240 (0.347)	-1.221 (0.924)	0.819 (0.500)	0.142 (0.375)	-1.391 (1.422)	-1.153 (0.913)	-1.195 (1.035)
Unemployment Rate	22.26 (14.50)	-3.612 (5.526)	3.359 (4.781)	22.03 (14.70)	-3.845 (5.574)	3.081 (4.831)	59.39* (23.65)	22.25 (14.46)	19.79 (17.25)
% Over 60 yrs. old	-11.88 (7.986)	-1.427 (5.146)	-6.151 (3.982)	-13.48 (8.401)	-1.017 (5.188)	-6.321 (4.046)	-13.45 (12.14)	-10.51 (8.311)	-16.38 (10.60)
Cycle Year=2	-0.358 (0.576)	0.0321 (0.354)	-0.316 (0.240)	-0.228 (0.605)	0.0289 (0.355)	-0.290 (0.244)	0.659 (0.835)	-0.305 (0.602)	-0.414 (0.780)
Cycle Year=3		-0.884* (0.431)	-1.032** (0.385)		-0.961* (0.438)	-1.054** (0.389)			
Country=Hungary			2.518*** (0.321)			2.585*** (0.340)			
Dominant Party Incumbent	3.458*** (0.497)	2.515*** (0.347)	2.909*** (0.247)	3.516*** (0.510)	2.542*** (0.349)	2.926*** (0.251)		3.420*** (0.502)	2.510*** (0.683)
Number of Candidates				0.107 (0.131)	0.0949 (0.109)	0.0550 (0.0751)	-0.688 (0.405)	-0.506 (0.320)	0.197 (0.162)
Decided in 2nd Round							-4.194* (1.842)	-2.982* (1.393)	
2 nd Round x Number of Candidates							0.974* (0.445)	0.763* (0.346)	
Constant	3.360 (4.008)	-3.524 (2.196)	-2.312 (1.656)	4.106 (4.154)	-3.483 (2.213)	-2.105 (1.694)	4.954 (6.508)	5.355 (4.227)	4.639 (4.794)
Observations	530	391	921	530	391	921	530	530	277

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

The results in Table D2 approach the question in a slightly different way, including a dummy variable, where 1 is a city above the electoral threshold (20,000 in Poland, 10,000 in Hungary) for party-list Council voting, and 0 is a city beneath that threshold. In this specification, we can see that the effect of population similarly goes away almost entirely, with the exception of the Hungary specific models. This is not surprising given the significant multicollinearity between population and cities meeting the electoral threshold. The threshold variable itself is not statistically significant in any model. In this formulation, findings for number of candidates and the effect of the second round directly correspond to those seen in the main models in the text and Appendix A, suggesting that there our results are not driven by a statistically significant association between the use of a party list for council elections and the likelihood of the nationally dominant party candidate winning the mayoral election.

Table D2. Logistic Regression Coefficients (Dependent variable: win by dominant party).

	Model D1B	Model D2B	Model D3B	Model D4B	Model D5B	Model D6B	Model D7B	Model D8B	Model D9B
Population (logged)	-1.052 (0.543)	0.804* (0.396)	0.0124 (0.261)	-0.836 (0.558)	0.845* (0.403)	0.160 (0.272)	-0.537 (0.845)	-0.817 (0.567)	-0.861 (0.686)
Unemployment Rate	1.169 (7.085)	-0.717 (3.356)	-0.144 (2.552)	1.872 (7.028)	-0.604 (3.379)	0.665 (2.585)	12.39 (11.34)	1.886 (7.107)	8.464 (8.334)
% Over 60 yrs. old	-8.070 (4.514)	2.396 (2.813)	-2.567 (2.130)	-6.765 (4.512)	2.495 (2.838)	-1.999 (2.145)	-9.030 (7.105)	-6.300 (4.544)	-9.936 (5.946)
Cycle Year=2	-0.123 (0.317)	0.114 (0.237)	-0.0655 (0.151)	-0.226 (0.322)	0.119 (0.238)	-0.113 (0.152)	0.134 (0.455)	-0.268 (0.327)	-0.263 (0.414)
Cycle Year=3		-0.117 (0.268)	-0.340 (0.238)		-0.101 (0.270)	-0.343 (0.238)			
Country=Hungary			1.976*** (0.198)			1.945*** (0.197)			
Dominant Party Incumbent	3.675*** (0.326)	1.939*** (0.239)	2.715*** (0.160)	3.601*** (0.325)	1.916*** (0.243)	2.673*** (0.161)		3.532*** (0.322)	2.686*** (0.421)
Number of Candidates				-0.127 (0.0854)	-0.0463 (0.0720)	-0.106* (0.0494)	-0.999*** (0.237)	-0.588*** (0.178)	-0.0882 (0.112)
Party List Council Election Threshold	-0.0710 (0.374)	-0.233 (0.302)	-0.239 (0.206)	-0.0667 (0.370)	-0.229 (0.304)	-0.240 (0.206)	-0.0572 (0.575)	-0.0267 (0.373)	0.132 (0.443)
Decided in 2nd Round							-2.373* (0.989)	-1.282 (0.746)	
2 nd Round x Number of Candidates							0.858** (0.269)	0.524* (0.204)	
Constant	3.665 (2.356)	-3.769* (1.680)	-1.574 (1.164)	3.009 (2.382)	-3.805* (1.690)	-1.917 (1.183)	3.247 (3.706)	4.006 (2.478)	3.820 (2.907)
Observations	1110	771	1881	1110	771	1881	1110	1110	544

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Appendix E. Urban-rural gmina

Appendix E assesses if urban-rural gmina are driving the findings in Poland (there is no analogous category in Hungary, so only Poland-specific models are included) using a dichotomous variable for local government units with this status. We find no effect for the urban-rural gmina, and the inclusion of the variable does not substantively affect the significance or size of other variables.

	Model E1	Model E4	Model E7	Model E8	Model E9
Population (logged)	-1.207** (0.398)	-0.992* (0.416)	-1.010 (0.648)	-0.921* (0.423)	-0.846 (0.507)
Unemployment Rate	1.691 (7.196)	2.432 (7.149)	14.29 (11.57)	2.349 (7.206)	8.168 (8.203)
% Over 60 yrs. old	-8.872 (4.766)	-7.627 (4.745)	-12.91 (7.528)	-7.032 (4.752)	-11.02 (6.064)
Cycle Year=2	-0.101 (0.322)	-0.206 (0.327)	0.257 (0.466)	-0.250 (0.331)	-0.227 (0.411)
Dominant Party Incumbent	3.677*** (0.330)	3.600*** (0.330)		3.528*** (0.326)	2.621*** (0.420)
Number of Candidates		-0.132 (0.0864)	-1.012*** (0.240)	-0.594*** (0.180)	-0.0886 (0.111)
Urban-Rural Gmina	-0.134 (0.284)	-0.156 (0.281)	-0.806 (0.453)	-0.136 (0.281)	-0.239 (0.335)
Decided in 2 nd Round			-2.444* (1.002)	-1.312 (0.753)	
2 nd Round x Number of Candidates			0.862** (0.272)	0.530** (0.206)	
Constant	4.510* (2.112)	3.903 (2.125)	6.549 (3.435)	4.671* (2.207)	4.244 (2.570)
Observations	1109	1109	1109	1109	544

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$