Supplementary Material - Contents

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Appendix I - Codebook and Auxiliary information

Parts of the Codebook for Indymedia protest events and reliability of coding

Variable	Description / codes
Event date (when did the event happen?)	The date of the event (calendar year, month, day). If the exact event date is not available, the publication date is used.
GD event	Dichotomous variable; an event of the GD is/is not reported in the post
Municipality (where did the event happen?)	Categorical variable; A code for each of 325 Kallikratis municipalities
Region	Categorical variable; there are 74 regional units
Violence	Dichotomous variable; was violence reported on behalf of the anti-far right organizers/participants/protestors? (yes/no)

The codebook was developed over months via an iterative procedure, using Indymedia links as a source of information for anti-far right events.

Initially, different members of the research group went through a large number of Indymedia links to develop the first version of the codebook. Then, the codebook was gradually refined through meetings where specific cases of events were discussed. The research group used/discussed the pertinent audio-visual evidence to back coding decisions. When the iterative procedure reached saturation (i.e., no further codebook refinements were needed), two members of the coding group were asked to blindly code 100 Indymedia links. Each event could contribute evidence regarding more than one event.

Inter-coder agreement on number of protest events: From the 100 Indymedia links, Coder1 identified 184 distinct events but Coder2 identified 204 distinct events. This yields a ratio of 204/184=1.11 which suggests that Coder2 was 11% more ‘eager’ than Coder1 to discern distinct events from the audio-visual and textual evidence of Indymedia links.

Inter-coder agreement on distinct protest events: For each of the 100 Indymedia links, we recorded the number of distinct events identified by each of the two coders. For example, for Indymedia Link1, Coder1 has discerned two distinct events but Coder1 only one. Overall, most of the links yielded only one event, but some links have yielded up to 10 events for Coder2 and 8 events for Coder 1.

The correlation between the two coders was found to be $r(98)=0.87$, $p<0.0001$. Assuming the count of distinct events to represent an ordinal index of the tendency of each of the coders to identify additional information in each of the links, we used the Kappa function of the VCD package in R to compute a weighted Cohen's Kappa agreement between the two coders. The results (using a Fleiss-Cohen weighting which gives more weight to near disagreements), are very similar to those reported by the correlation index: Kappa=0.845, 0<0.001.

Inter-coder agreement on where the event took place: For each of the 100 Indymedia links, we recorded the Municipality where the events took place. Then we correlated the number of events per Municipality, to test the coding agreement between the two coders. Overall, 54 Municipalities were found to have at least one event. The correlation between the coders was found to be $r(52)=0.97$, $p<0.0001$. Using the same procedure and making the same assumptions as above, the weighted Cohen's Kappa was: Kappa=0.858, $p<0.001$.

Auxiliary information:

A. For each of the Municipalities, we used ELSTAT (https://www.statistics.gr/) data regarding the background statistics of Municipalities. More specifically, for each Municipality, we considered variables such as the % of immigrants, the average age and the population size.
B. For each of the Municipalities, we considered information regarding the existence of GD branches as well as the electoral results of the left-wing parties for the 2009 National elections (i.e., 'left-wing strongholds').

Appendix II - The distribution of the logarithm of counts of protest events against the far right, per period

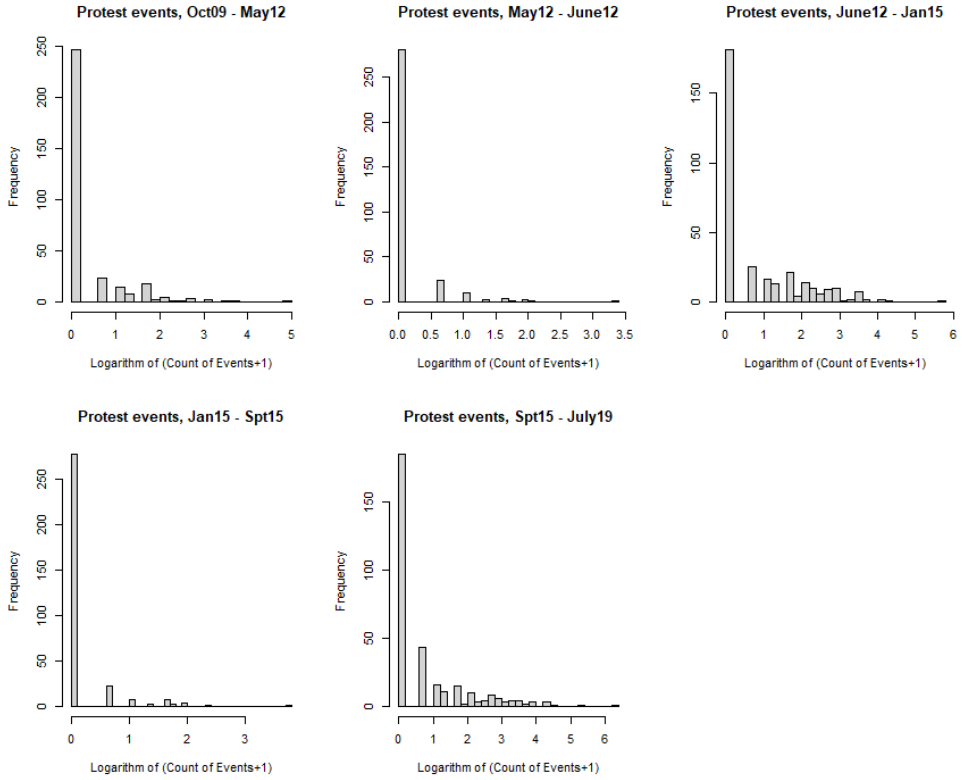


Figure: The distribution of the logarithm of counts of protest events against the far right, per period.

Appendix III - Tables A to C

Table A.

RAW data: Count of protest events, per period, per municipality

	October 09 – May 12	May 12 – June 12	June 12 – January 15	January 15 – September 15	September 2015 – July 2019	Total
N of events	504	117	1623	165	2070	4479
Duration (days)	945	42	952	238	1386	3563
Events/Day	0.5	2.8	1.7	0.7	1.5	1.26
N of munic. with No protest	246	280	181	277	185	137
N of munic. with Moderate protest	45	24	54	22	76	110
N of munic. with Frequent protest	34	21	90	26	64	78

Details on the trichotomization of the IV

For the period between the elections of June 2012 and January 2015, the time lapse is more than 2.5 years; for this period, municipalities with up to 3 events are classified in category “Moderate protest” and those with more than 3 events are classified in category “Frequent protest.” Similarly, for the subsequent period between the elections of January 2015 and September 2015, where the time lapse is eight months, municipalities with a single event are classified in the category “Moderate protest” and those with more than one event are classified in the category “Frequent protest.”

Table B.

TANGO effects: Count of Tango protest events, per period, per municipality

	October 09 – May 12	May 12 – June 12	June 12 – January 15	January 15 – September 15	September 2015 – July 2019	Total
N of protest events	59	7	178	14	85	343
Duration (days)	945	42	952	238	1386	3563
Events/Month	1.9	5.1	5.7	1.8	1.8	2.9
N of munic. with protest events	31	7	77	9	38	97

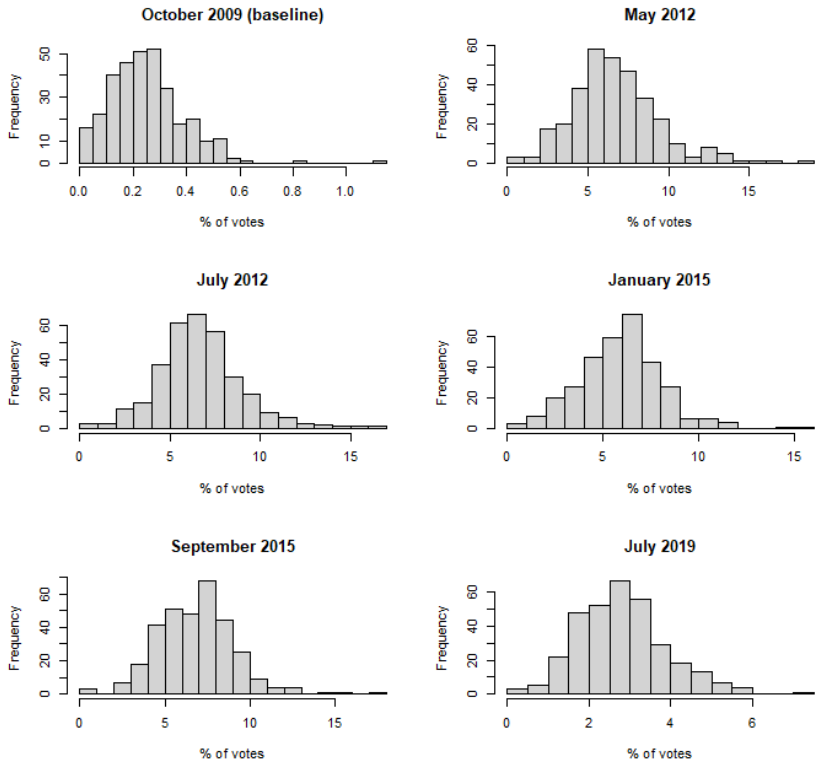
Table C. (continued in next page)

TIMING effects: Count of protest events, per period (Distant/Proximate periods relative to elections), per municipality

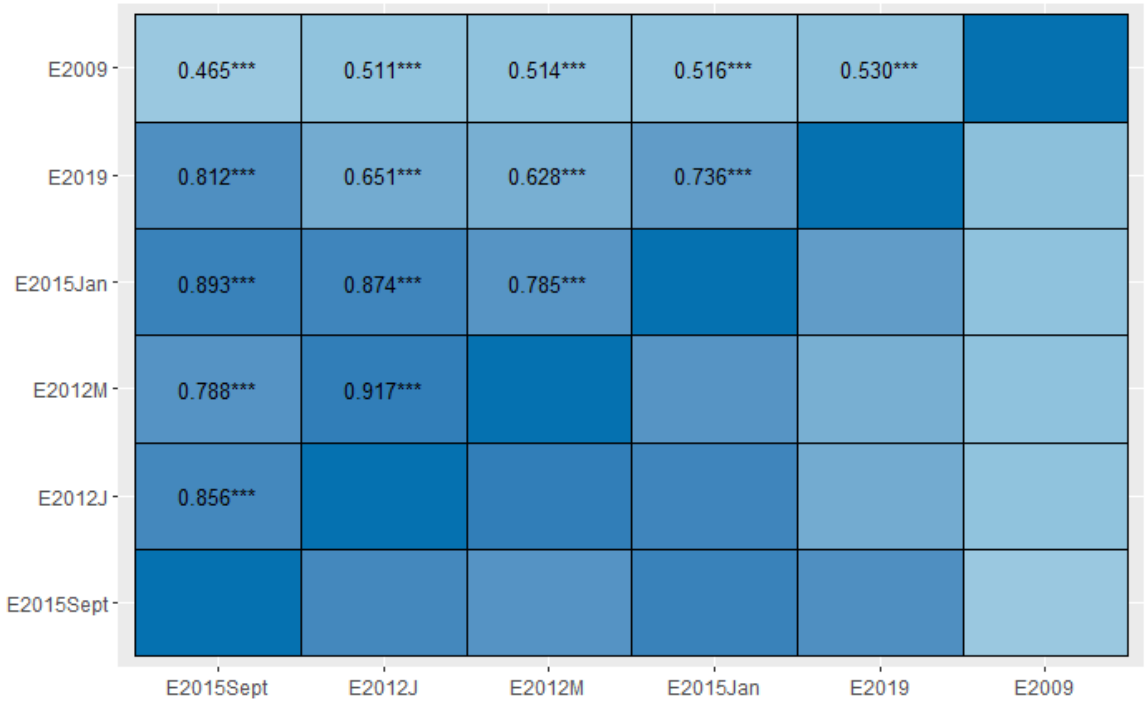
	October 09 – May 12	June 12 – January 15	September 2015 – July 2019
N of protest events **Distant period (N of municipalities)**	336 (63)	1491 (143)	1749 131)
Count of protest events **Proximate period (N of municipalities)**	168 (51)	132 (53)	321 (69)
Total Duration (days)	945	952	1386
Events per day (Distant period)	0.4	1.9	1.5
Events per day (Recent period; last 180 days)	0.9	0.7	1.8

N of municipalities: Event patterns for Distant and Proximate periods relative to elections			
No distant – No recent	246	181	185
Only distant protest events	28	91	71
Only proximate protest events	16	1	9
Both distant and pxoximate protest events	35	52	60

Appendix IV - The distribution of DV for each of the six Parliamentary Elections, including the baseline measure of October 2009



Appendix V - The Pearson correlations between the electoral results of the GD for the six parliamentary elections



Key:

E2009: Elections of October 2009
E2012M: Elections of May 2012
E2012J: Elections of June 2012
E2015Jan: Elections of January 2015
E2015Sept: Elections of September 2015
E2019: Elections of July 2019

Note: 1. Spearman correlations between the DVs yielded very similar results.
2. Correlations sorted by value size

Appendix VI - A summary of the main variables for each of the Models used in the study

	DV (% of GD votes)	Baseline measure (% of GD votes in the previous elections)	IV (count of protest events for period)	Controlling for
1st Model	Elections May 2012	Elections October 2009	October 2009 - May 2012 (circa 2.5 years)	Population, unemployment, immigration, age, presence of GD branch, abstention rates. Municipalities nested within administrative regions (clustering in 2-level Mixed effects model)
2nd Model	Elections June 2012	Elections October 2009	October 2009 - June 2012 (circa 2.5 years)	As above
3rd Model	Elections January 2015	Elections June 2012	July 2012 - January 2015 (circa 2.5 years)	As above
4th Model	Elections September 2015	Elections January 2015	January 2015 - September 2015 (less than one year)	As above
5th Model	Elections July 2019	Elections September 2015	September 2015 – July 2019 (circa 3.5 years)	As above

Table: A summary of the main variables for each of the Models used in the study

Appendix VII - Testing for more control variables (protest events before 2009, unemployment, GD branches and abstention)

	Elections May 2012 (%GD)		
Predictors	*Estimates*	*CI*	*p*
Fixed Effects			
(Intercept)	3.45	-1.92 – 8.81	0.207
Baseline measure: Previous electoral results	5.18	3.19 – 7.16	**<0.001**
Protest effects: Anti-far right protest for pertinent period (Reference category: no protest events)			
At most one event per year	-0.75	-1.39 – -0.11	**0.021**
More than one event per year	-1.17	-2.04 – -0.31	**0.008**
Other control variables			
Protest events (before October 2009)	-0.31	-1.02 – 0.41	0.399

Average Age	-0.06	-0.14 – 0.01	0.102
Population (log)	0.44	0.11 – 0.78	**0.010**
Immigrants (% of population)	0.08	0.03 – 0.13	**0.002**
Unemployment (% of the population)	0.13	-0.01 – 0.27	0.066
GD Branch (Yes)	0.09	-0.78 – 0.97	0.834
Abstention rate	-0.76	-3.92 – 2.41	0.637
Random Effects			
σ^2	2.58		
$\tau_{00\ (Regions)}$	2.32		
ICC	0.47		
$N_{\ (Regions)}$	74		
Observations	322		
Marginal R^2 / Conditional R^2	0.217 / 0.588		

Appendix VIII - Testing for more control variables (left-wing strongholds)

	Elections May 2012 (%GD) ANTARSYA			**Elections May 2012 (%GD)** KKE			**Elections May 2012 (%GD)** SYRIZA		
Predictors	*Estimates*	*CI*	*p*	*Estimates*	*CI*	*p*	*Estimates*	*CI*	*p*
Fixed effects									
(Intercept)	5.20	0.57 – 9.83	**0.028**	6.35	1.82 – 10.89	**0.006**	7.04	2.79 – 11.30	**0.001**
Baseline measure: Previous electoral results	5.75	3.83 – 7.66	**<0.001**	6.01	4.09 – 7.92	**<0.001**	5.70	3.92 – 7.48	**<0.001**
Protest effects: Anti-far right protest for pertinent period (Reference category: no protest events)									
At most one event per year	-0.78	-1.39 – -0.17	**0.012**	-0.62	-1.23 – -0.02	**0.043**	-0.44	-1.01 – 0.12	0.124
More than one event per year	-1.14	-1.89 – -0.39	**0.003**	-0.98	-1.71 – -0.25	**0.009**	-0.71	-1.40 – -0.03	**0.041**
Other control variables									
Average Age	-0.07	-0.14 – 0.00	0.052	-0.08	-0.15 – -0.01	**0.033**	-0.09	-0.15 – -0.02	**0.010**

Population (log)	0.25	0.02 – 0.48	**0.030**	0.23	0.01 – 0.46	**0.042**	0.37	0.16 – 0.59	**0.001**
Immigrants (% of population)	0.07	0.02 – 0.12	**0.004**	0.07	0.02 – 0.12	**0.007**	0.07	0.02 – 0.11	**0.005**
Electoral results: 2009 ANTARSYA	0.46	-0.64 – 1.55	0.414						
Electoral results: 2009 KKE				-0.09	-0.16 – -0.02	**0.012**			
Electoral results: 2009 SYRIZA							-0.56	-0.73 – -0.40	**<0.001**
Random Effects									
σ^2	2.59			2.50			2.14		
$\tau_{00\ (Regions)}$	2.32			2.48			2.71		
ICC	0.47			0.50			0.56		
N (Regions)	74			74			74		
Observations	322			322			322		
Marginal R^2 / Conditional R^2	0.211 / 0.584			0.209 / 0.603			0.262 / 0.674		

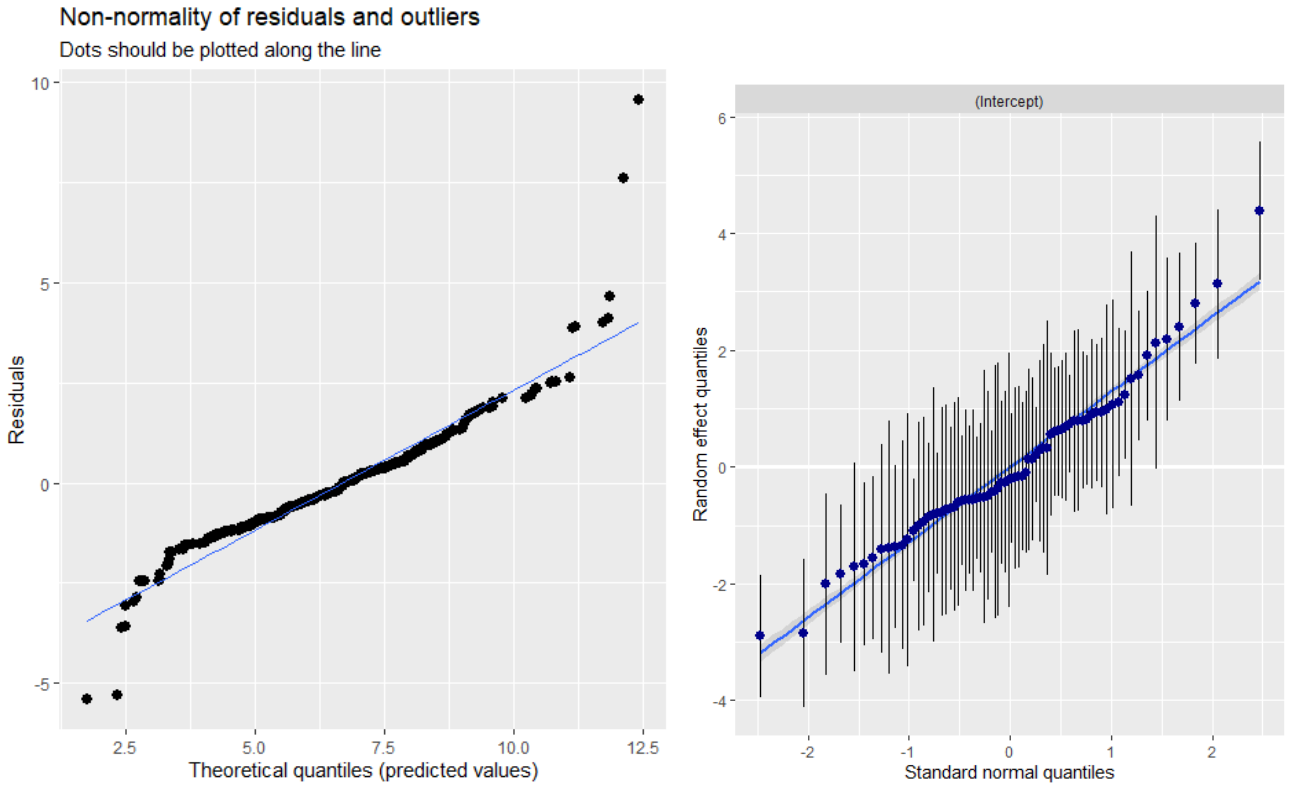
Appendix IX - Testing for more control variables (Violence)

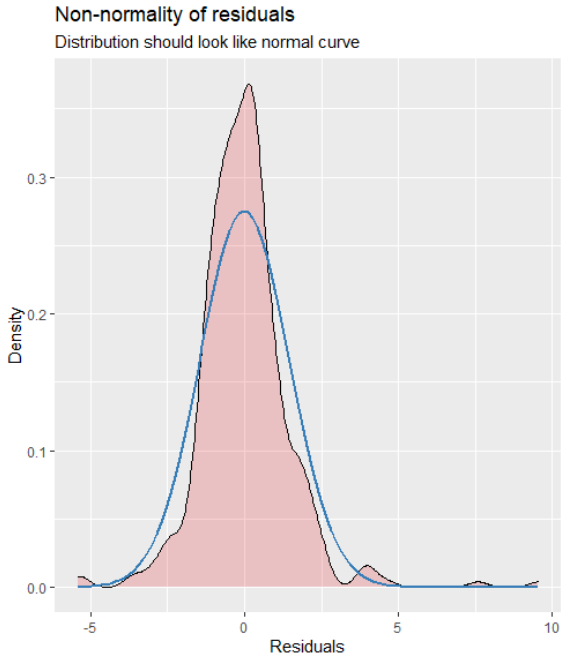
	1st Model Elections May 2012 (%GD) Timing			2nd Model Elections January 2015 (%GD) Timing		
Predictors	*Estimates*	*CI*	*p*	*Estimates*	*CI*	*p*
Fixed effects						
(Intercept)	5.46	1.56 – 9.35	**0.006**	-3.45	-5.60 – -1.30	**0.002**
Previous electoral results	5.40	3.75 – 7.04	**<0.001**	0.76	0.71 – 0.82	**<0.001**
Protest effects: Anti-far right protest for pertinent period (Reference category: no protest events)						
At most one event per year	-0.63	-1.15 – -0.11	**0.017**	-0.01	-0.30 – 0.28	0.970
More than one event per year	-0.77	-1.46 – -0.08	**0.029**	-0.36	-0.69 – -0.04	**0.030**
Average Age	-0.07	-0.13 – -0.01	**0.023**	0.03	-0.01 – 0.06	0.150
Population (log)	0.28	0.08 – 0.47	**0.005**	0.33	0.21 – 0.44	**<0.001**
Immigrants (% of population)	0.03	-0.01 – 0.07	0.182	0.01	-0.01 – 0.03	0.389
Violent Events (Yes)	-0.10	-0.88 – 0.68	0.796	0.01	-0.31 - 0.33	0.944

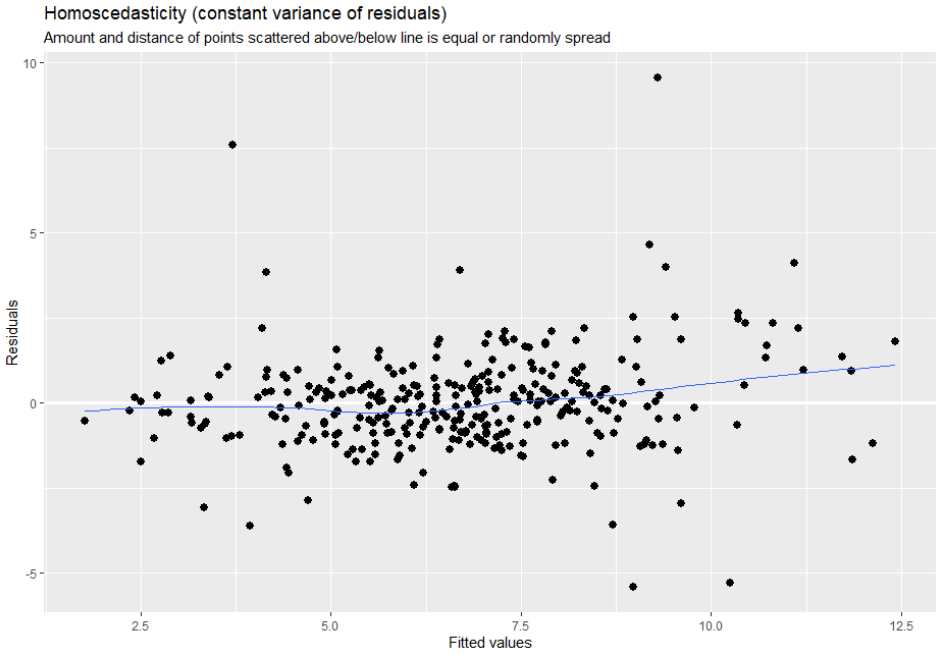
Random Effects		
σ^2	1.83	0.62
$\tau_{00\ (Regions)}$	2.10	0.36
ICC (Regions)	0.53	0.37
N	74	74
Observations	322	322
Marginal R^2 / Conditional R^2	0.212 / 0.632	0.787 / 0.865

Appendix X – Testing Assumptions

(1st Model, Elections May 2012, Table 1)



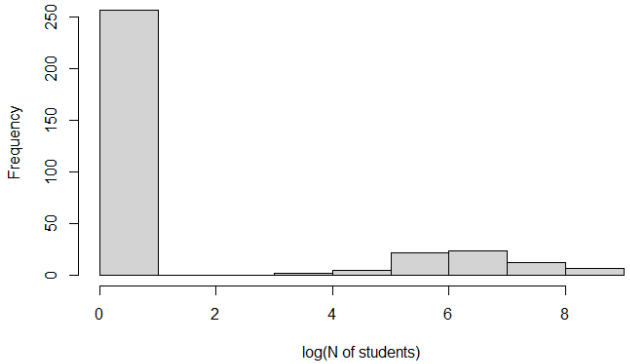

Non-normality of residuals
Distribution should look like normal curve
Density
0.3
0.2
0.1
0.0
-5
0
5
10
Residuals


Homoscedasticity (constant variance of residuals)
Amount and distance of points scattered above/below line is equal or randomly spread
Residuals
10
5
0
-5
2.5
5.0
7.5
10.0
12.5
Fitted values

Appendix XI – University students per Municipality

We used the official release of the results of the Pan-Hellenic University entrance examinations to retrieve the number of admitted students per University Department and Program. We visited the web pages of each of the Departments/Programs and located the postcode and address (and thus the Municipality). We then aggregated all admitted students, for all Departments/Programs to reach the final number of students admitted per Municipality. We considered this number to be a proxy of the number of students attending University studies per Municipality.

Only 68 out of 325 Municipalities (≈20%) host a University Department/Program, thus the distribution of students is extremely skewed (see the figure below). Among those 68 municipalities with University Departments or Programs, the smaller number of admitted students was 50 (two municipalities) and the largest number of students were admitted in Athens (N=5,160), Patra (5, 559) and Thessaloniki (N=7, 758). Due to the extremely skewed nature of the distribution, we considered both the numeric but also a dichotomous version of the variable which was coded as 0 (no University Departments/Programs at the Municipality) and 1 (There is at least one University Department/Program at the Municipality). Note: Some of the biggest Greek University Departments/Programs, including those in the broader Athens area, tend to be scattered across Municipalities.



Note: log(N) represents the natural logarithm

Appendix XII – Instrumental Variable

The instrumental variable is a very good predictor of anti far right events. For example, the correlation between the count of events and the number of students per Municipality for the period Sept. 2015 – July 2019 is $r(323)=0.65$, $p<0.001$. For the period June 2012 to January 2015, the corresponding correlation was $r(323)=0.62$, $p<0.001$. For the period October 2009 to June 2012, the corresponding correlation was $r(323)=0.60$, $p<0.001$. Using Spearman instead of Pearson correlations also yields practically the same results (e.g. for the period October 2009 to July 2012, the Spearman correlation is $rho=0.52$, $p<0.001$). Finally, removing outliers does not affect the results (e.g. for the period October 2009 to July 2012, removing Municipalities with more than 400 activities and more than 7000 students yields practically the same correlation $r(323)=0.61$, $p<0.001$).

The models of Table I were replicated using instrumental variable regression models with the ivreg function of the AER package on R. We used the number of students per Municipality as an instrumental variable, affecting the number of anti-far right events. The pertinent R code is shown below:

```
summary(reg_2 <- ivreg(ekloges_June_2012_GD ~ ekloges_2009_GD + log_population + average_age +
N_AntifaEvents_Oc09_Ju12  |  ekloges_2009_GD + log_population + average_age + Foitites , data =
dta), diagnostics=TRUE)
```

Instrumental Variable (2SLS) models using the number of students per Municipality as an instrument.

	1st Model Elections May 2012 (%GD)			**2nd Model Elections June 2012 (%GD)**			**3rd Model Elections January 2015 (%GD)**		
Predictors	*Estimates*	*CI*	*p*	*Estimates*	*CI*	*p*	*Estimates*	*CI*	*p*
(Intercept)	3.08	1.70 – 7.86	0.206	2.04	-2.15– 6.24	0.339	-4.37	-6.39 – -2.35	**<0.001**
Previous electoral results	8.75	6.74 – 10.77	**<0.001**	7.77	6.01 – 9.54	**<0.001**	0.75	0.71 – 0.80	**<0.001**
Population (log)	0.28	0.03 – 0.53	**0.028**	0.37	0.15-0.58	**0.001**	0.36	0.24 – 0.47	**<0.001**
Average Age	-0.03	-0.10 – 0.05	0.481	-0.02	-0.09- -0.05	0.573	0.04	0.01 – 0.07	**0.010**
Protest events for pertinent period	-0.08	-0.14 – -0.02	**0.012**	-0.06	-0.11- -0.02	**0.005**	-0.01	-0.02 – 0.01	0.128
Observations	322			322			322		
R^2 / R^2 adjusted	0.223 / 0.213			0.253 / 0.244			0.789 / 0.786		

Note: The protest events for the pertinent period was modelled as a numeric variable (counts of events) according to ivreg specifications, instead of the trichotomous variable which was used in Table 1.

We also conducted two diagnostic tests for each of the models with the instrumental variables:

"Weak instruments test": A good instrumental variable (i.e., number of students per Municipality) is highly correlated with one or more of the explanatory variables (anti-far right protest events) while remaining uncorrelated with the errors. If an endogenous regressor (in this case anti-far right protest events) is only weakly related to the instrumental variables (i.e. number of students), then its coefficient will be estimated imprecisely. With this test, we desire to have a large test statistic and small p-value in the diagnostic test for weak instruments.

"Wu–Hausman test": The Wu–Hausman test is a test of endogeneity. If all of the regressors (including anti-far right protest events) are exogenous, then both the OLS and 2SLS estimators are consistent, and the OLS estimator is more efficient. But if one or more regressors (e.g. anti-far right protest events) are endogenous, then the OLS estimator is inconsistent. A large test statistic and small p-value, suggests that the OLS estimator is inconsistent and the 2SLS estimator is therefore to be preferred.

Diagnostic tests for the 1st model:

	df1	df2	statistic	p-value	
Weak instruments	1	317	139.396	<2e-16	***
Wu-Hausman	1	316	4.282	0.0393	*

The tests for the other models are not presented as the results are not statistically significant anyway.

Appendix XIII – Additional robustness tests

As an additional robustness check, a mixed effects model was fit on a stacked dataset, modeling the effect of protest on the electoral results of GD for four elections (May 2012, January 2015, September 2015 and July 2019), after standardizing all variables related to elections to a distribution N(0,1) (see Appendix IV for raw distributions).

The analysis of the stacked dataset was repeated using the same model as shown in Table 1. Another model was fit on the data adding an interaction term between the Electoral period and Protest. The model with an interaction term showed a significant fit improvement compared to a model without interaction terms: $\chi 2(6)=16.193$, $p=0.013$.

The model with the interaction term is presented in the table below and suggests that protest has a differential impact on the electoral results of the GD across elections. Protest is more effective for the May 2012 elections compared to other elections. In May 2012, experiencing protest in a Municipality corresponds to around a third of a standard deviation lower electoral results for the GD, compared to experiencing no protest. This is a sizable effect and statistically significant. In comparison, experiencing protest during other electoral periods (compared to May 2012) does not correspond to similarly suppressed GD electoral results. As expected, the magnitude of the protest coefficients is smaller than the effects reported by the 1st and 2nd models of Table 1 (May and June 2012), because of the negligible impact of protest on the electoral results of the GD for the last two elections (September 2015 and July 2019).

Predictors	*Estimates*	*CI*	*p*
Fixed Effects			
(Intercept)	-0.16	-0.99 – 0.68	0.711
Baseline measure (previous electoral results)	0.55	0.51 – 0.60	**<0.001**
Elections (Reference Category: May 2012)			
January 2015	-0.10	-0.21 – 0.02	0.097
September 2015	-0.07	-0.17 – 0.03	0.175
July 2019	-0.07	-0.18 – 0.04	0.238
Protest effects: Anti-far right protest for pertinent period (Reference category: no protest events)			
At most one event per year [Protest=1]	-0.30	-0.50 – -0.11	**0.002**
More than one event per year [Protest>1]	-0.35	-0.57 – -0.13	**0.002**
Other control variables			
Average Age	-0.01	-0.03 – -0.00	**0.042**
Population (log)	0.07	0.03 – 0.11	**0.001**

Immigrants (% of population)	0.02	0.01 – 0.03	**<0.001**
Protest effects * Elections (interaction term)			
January 2015 * Protest=1	0.40	0.14 – 0.66	**0.003**
September 2015 * Protest=1	0.32	-0.00 – 0.63	0.050
July 2019 * Protest=1	0.25	-0.00 – 0.49	0.051
January 2015 * Protest >1	0.35	0.09 – 0.61	**0.007**
September 2015 * Protest >1	0.22	-0.10 – 0.53	0.179
July 2019 * Protest >1	0.36	0.09 – 0.63	**0.009**

Random Effects

σ^2	0.34
$\tau_{00\ (Regions)}$	0.10
ICC	0.23
$N_{\ (Regions)}$	74
Observations	1288
Marginal R^2 / Conditional R^2	0.470 / 0.592