Appendix: A missing guardrail—The minimal effect of election fraud on protest intensity in non-democracies

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0.1 ECAV data

As a robustness check for the main analysis, I recreate the models from the main text using data from the Electoral Contention and Violence (ECAV) dataset (Daxecker, Amicarelli, and Jung 2019) in place of the Mass Mobilization dataset. ECAV records protests and other contentious actions from six months before to three months after an election. Unlike the Mass Mobilization dataset used in the main text, which records a protest only if there are more than 50 participants, ECAV has no minimum participation threshold. However, it also lacks consistent data on the number of participants in each protest—data on the median number of participants in missing in this dataset for 514 of the 647 election. As a result, I exclude data on protest size from the models below; otherwise, they use the same control and explanatory variables as the main models. To capture the *number of protests*, I take the sum number of events recorded in ECAV from election day to the end of the dataset's coverage period ninety days later. I include events labeled as protests only, excluding acts like shootings, bombings, and coups.

The results generally echo those from the Mass Mobilization data used in the main text. First, Model 1 shows the relationship between pre-election mobilization captured by ECAV and the subsequent integrity of the election. Far from showing that pre-election protest makes elections cleaner, it instead shows a *positive* correlation between protest and fraud; i.e. a more turbulent pre-election period is assocaited with higher levels of fraud in this model. As in Model 1 in the main text, however, the effect is substantively very small. Model 2 shows that protest initiation is more likely when elections are more fraudulent and margins of victory are low, with the effect appearing even stronger using the ECAV data than the Mass Mobilization data. In this dataset, a significant increase in protest risk is detectable even at modest levels of election manipulation, at low margins of victory. Models 3 and 4 show no increase in risk across economic crisis or public sector corruption. Finally, as with the main models, there is no apparent relationship between the degree of fraud and the number of subsequent protests, either as a standalone variable or in interaction with the other variables of interest.

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## Data were 'prettified'. Consider using 'terms="pubseccorrup.lag [all]"'
```

Table 1: Random-intercept multilevel model of election-day fraud (ECAV data)

	Model 1
(Intercept)	2.084***
	(0.223)
jucon.1lag	−1.651***
	(0.293)
legcon.1lag	0.589*
	(0.287)
gdpgro.1lag	0.125
	(0.079)
altinf.1lag	0.073
	(0.350)
osorg.1lag	0.174**
	(0.065)
econ.crisis.nelda.1lag1	0.048
	(0.056)
natlpartyorg.lag	−0.166**
	(0.058)
presidential	0.078+
	(0.046)
inc.termlimit.num	−0.007
	(0.088)
libdem.1lag	−2.842***
	(0.569)
urban.pct	−0.007*
	(0.003)
rentierstate	0.088
	(0.131)
taxstate	0.253+
	(0.139)
n.events.pre	0.009**
	(0.003)
SD (Intercept stateid)	0.593
SD (Observations)	0.454
Num.Obs.	540
R2 Marg.	0.505
R2 Cond.	0.817
AIC	971.1
BIC	1044.1
ICC	0.6
RMSE	0.41

+ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

```
##   to get smooth plots.
## Data were 'prettified'. Consider using `terms="pubseccorrup.lag [all]"`
##   to get smooth plots.
```

Table 2: Binary portion of hurdle models of post-election protest (ECAV data)

	Model 2	Model 3	Model 4	Model 5
zero_(Intercept)	−3.890*	−5.710***	−3.147**	−2.928**
	(1.568)	(1.653)	(1.156)	(1.134)
zero_jucon.1lag	1.308	1.283	0.212	−0.175
	(1.321)	(1.337)	(1.130)	(1.107)
zero_legcon.1lag	−1.548	−1.249	−0.548	−0.313
	(1.131)	(1.121)	(0.991)	(0.982)
zero_gdpgro.1lag	1.053	2.134		
	(1.573)	(1.668)		
zero_altinf.1lag	0.884	0.954	0.654	0.197
	(1.707)	(1.726)	(1.556)	(1.474)
zero_pubseccorrup.lag	0.337	0.134	0.197	0.245
	(0.216)	(0.227)	(0.202)	(0.208)
zero_osorg.1lag	0.309	0.233	0.192	0.342
	(0.292)	(0.300)	(0.273)	(0.259)
zero_econ.crisis.nelda.1lag1	−0.330	−0.460	−0.412	
	(0.365)	(0.374)	(0.491)	
zero_natlpartyorg.lag	−0.350	−0.300	−0.246	−0.202
	(0.243)	(0.249)	(0.215)	(0.208)
zero_v2elirreg.inv	0.356	2.080***	0.063	0.187
	(0.277)	(0.597)	(0.262)	(0.251)
zero_winner.share.upd	−0.609	2.974*		
	(0.975)	(1.428)		
zero_presidential	1.085**	1.150**	0.957**	1.017***
	(0.357)	(0.361)	(0.292)	(0.288)
zero_inc.termlimit.num	−1.483+	−1.470+	−1.544*	−1.567*
	(0.805)	(0.809)	(0.787)	(0.783)
zero_physinteg.1lag	6.662+	5.639	4.205	3.945
	(3.665)	(3.732)	(3.040)	(3.058)
zero_physintlag.sq	−7.380*	−6.732*	−5.127+	−5.162+
	(3.266)	(3.337)	(2.741)	(2.778)
zero_urban.pct	0.0005	0.001	−0.002	−0.0004
	(0.009)	(0.010)	(0.008)	(0.008)
zero_rentierstate	0.806	0.713	0.538	0.650
	(0.549)	(0.558)	(0.475)	(0.470)
zero_taxstate	0.403	0.401	0.605	0.611

	(0.575)	(0.576)	(0.492)	(0.495)
zero_n.events.pre	20.376	20.545	20.110	19.751
	(1580.861)	(1617.472)	(1468.660)	(1279.359)
zero_v2elirreg.inv × winner.share.upd		−3.244***		
		(0.978)		
zero_econ.crisis.nelda.1lag1 × v2elirreg.inv			0.474	
			(0.348)	
zero_pubseccorrup.lag × v2elirreg.inv				0.017
				(0.107)
Num.Obs.	462	462	546	559
AIC	1025.7	1015.3	1218.9	1250.3
BIC	1187.0	1184.9	1378.1	1401.7
RMSE	8.87	13.22	49.90	171.16

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001

Table 3: Hurdle models of post-election protest (counts)

	Model 2	Model 3	Model 4	Model 5
count_(Intercept)	2.220+	2.889*	0.100	−0.231
	(1.312)	(1.405)	(1.477)	(1.318)
count_jucon.1lag	−3.294**	−3.038*	−1.907+	−1.678
	(1.210)	(1.211)	(1.092)	(1.129)
count_legcon.1lag	1.935*	2.055*	1.245	1.301
	(0.949)	(0.943)	(1.065)	(1.039)
count_altinf.1lag	−0.456	−0.987	0.178	0.509
	(1.633)	(1.659)	(1.658)	(1.569)
count_gdpgro.1lag	1.679	1.962		
	(2.343)	(2.336)		
count_pubseccorrup.lag	−0.011	−0.027	0.179	0.107
	(0.174)	(0.173)	(0.185)	(0.252)
count_osorg.1lag	0.053	0.069	−0.174	−0.234
	(0.299)	(0.294)	(0.316)	(0.297)
count_econ.crisis.nelda.1lag1	−0.195	−0.109	−0.673	
	(0.343)	(0.346)	(0.645)	
count_natlpartyorg.lag	0.511*	0.488*	−0.061	−0.041
	(0.204)	(0.205)	(0.174)	(0.169)
count_v2elirreg.inv	−0.047	−0.652	−0.037	0.059
	(0.217)	(0.515)	(0.248)	(0.269)
count_winner.share.upd	−1.954+	−3.607*		
	(1.117)	(1.730)		
count_presidential	0.008	0.109	−0.374	−0.517
	(0.375)	(0.379)	(0.368)	(0.382)
count_inc.termlimit.num	1.831***	1.731***	2.754***	2.745***

	(1)	(2)	(3)	(4)
	(0.526)	(0.525)	(0.653)	(0.643)
count__physinteg.1lag	3.184	3.744	3.734	3.099
	(3.014)	(3.039)	(3.763)	(3.409)
count__physintlag.sq	−4.063	−4.456	−4.453	−4.095
	(3.015)	(3.030)	(3.556)	(3.256)
count__urban.pct	−0.015	−0.015	−0.017	−0.015
	(0.010)	(0.010)	(0.010)	(0.010)
count__rentierstate	−0.281	−0.157	0.620	0.618
	(0.610)	(0.615)	(0.557)	(0.552)
count__taxstate	0.291	0.262	1.035*	1.172*
	(0.542)	(0.542)	(0.494)	(0.479)
count__n.events.pre	0.053**	0.059**	0.090**	0.080**
	(0.020)	(0.021)	(0.029)	(0.028)
count__v2elirreg.inv × winner.share.upd		1.175		
		(0.929)		
count__econ.crisis.nelda.1lag1 × v2elirreg.inv			0.287	
			(0.499)	
count__pubseccorrup.lag × v2elirreg.inv				0.050
				(0.162)
Num.Obs.	462	462	546	559
AIC	1025.7	1015.3	1218.9	1250.3
BIC	1187.0	1184.9	1378.1	1401.7
RMSE	8.87	13.22	49.90	171.16

+ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

While there are modest differences between the results from the ECAV and Mass Mobilization data, they tell essentially the same story: pre-election protest is not associated with reduced election fraud, fraud severity may be associated with a higher risk of protest initiation in the most highly contested elections, and there is no apparent relationship between the severity of election fraud and the number of post-election protests. These results support the claims in the main text that protest risk is a poor deterrent to manipulated elections.
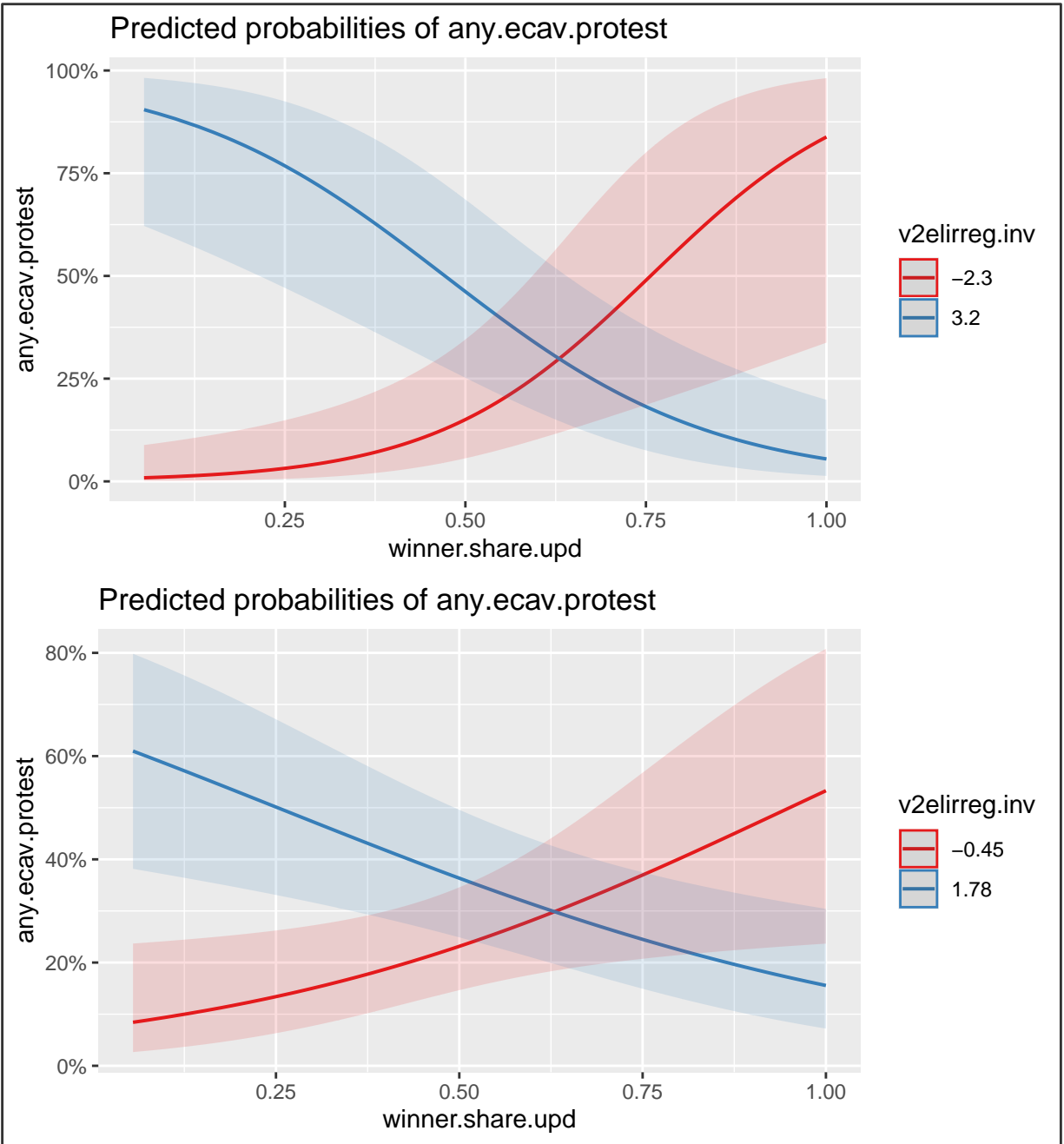
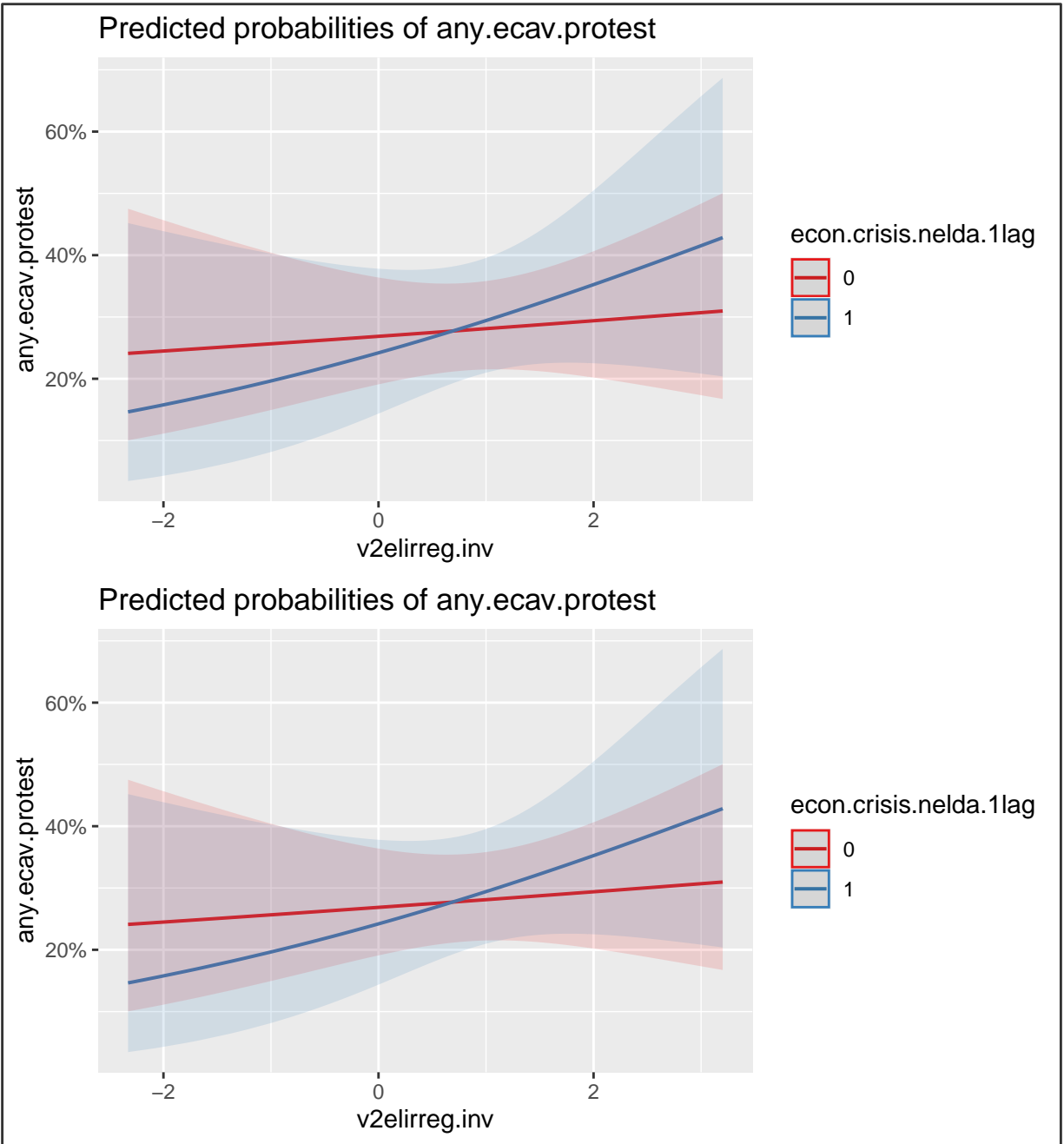Figure 1: Fraud, winning vote-share, and probability of protest initiation

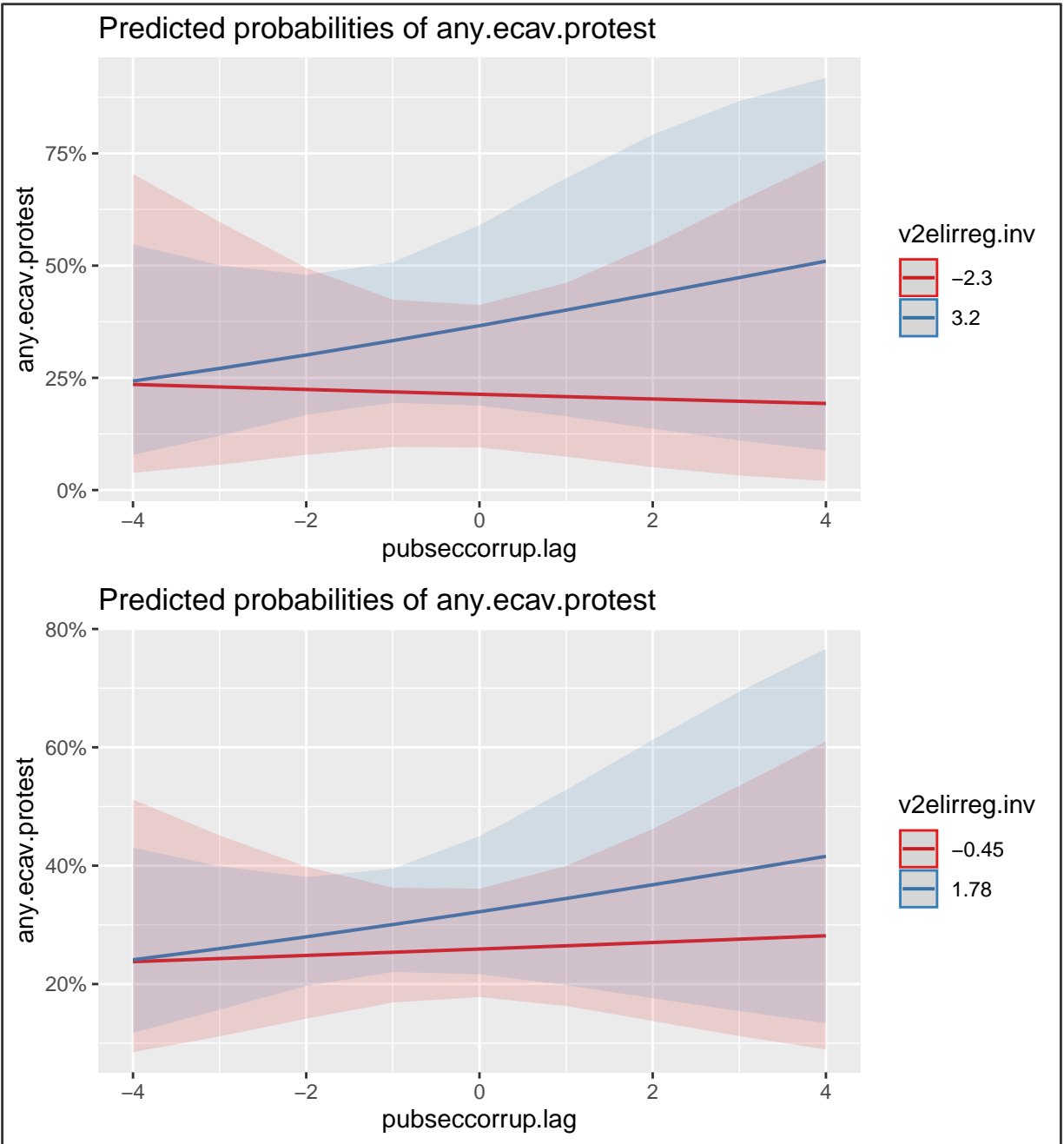Figure 2: Fraud, economic crisis, and probability of protest initiation

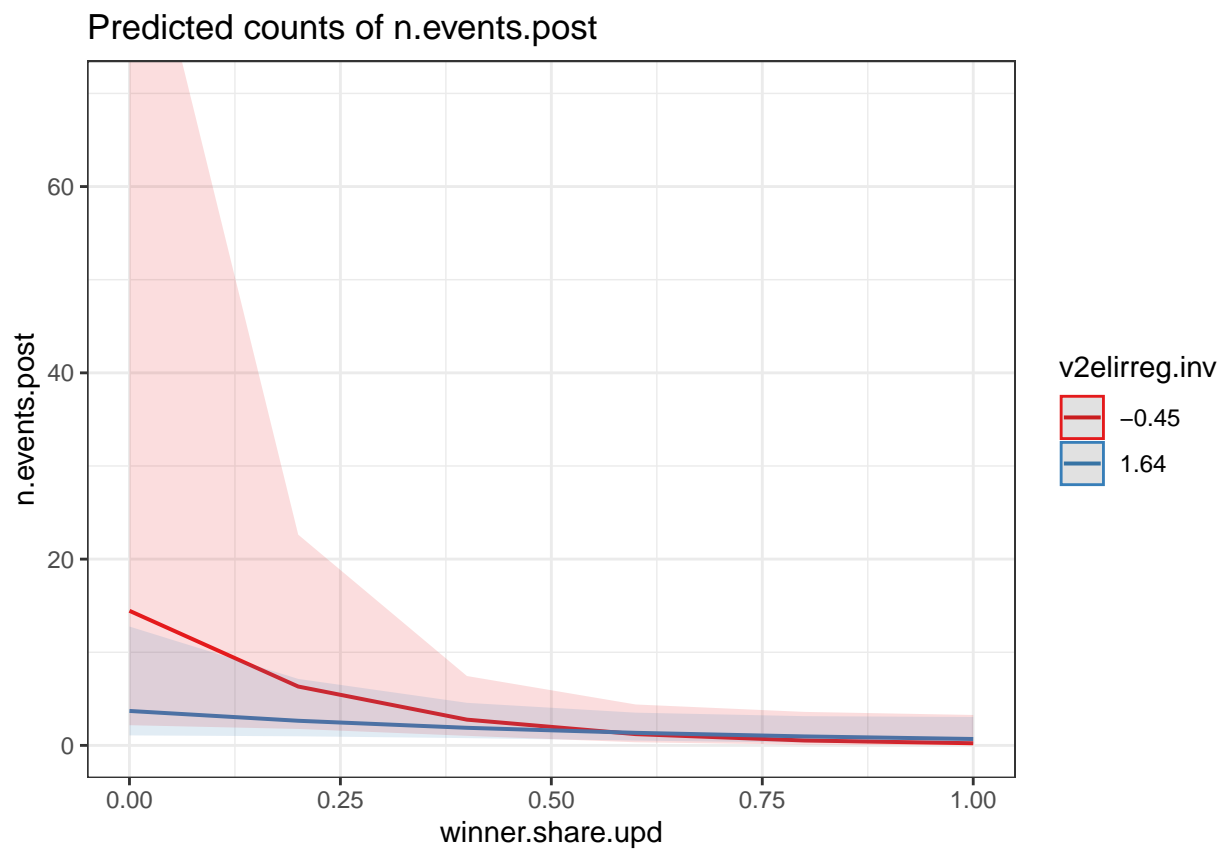Figure 3: Fraud, public sector corruption, and probability of protest initiation

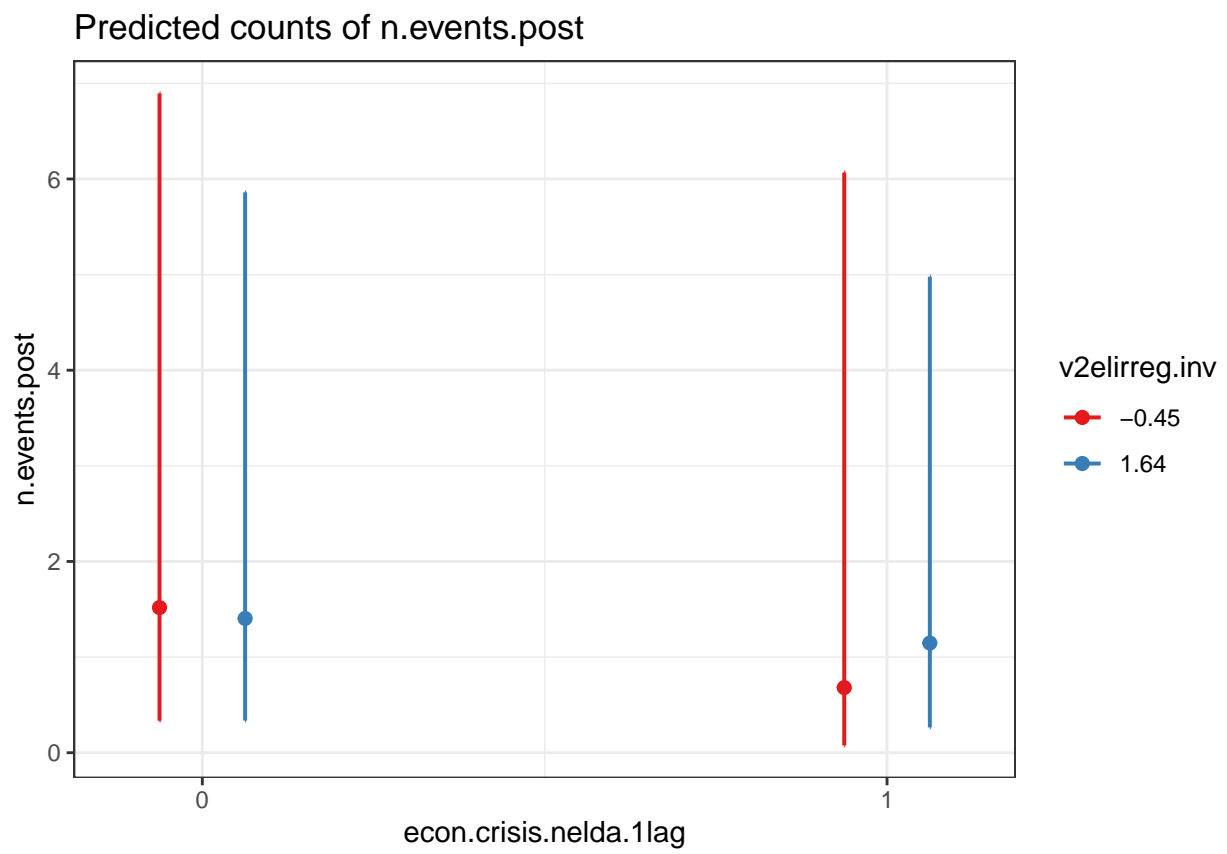Figure 4: Fraud, public sector corruption, and number of protest events

Figure 5: Fraud, public sector corruption, and number of protest events
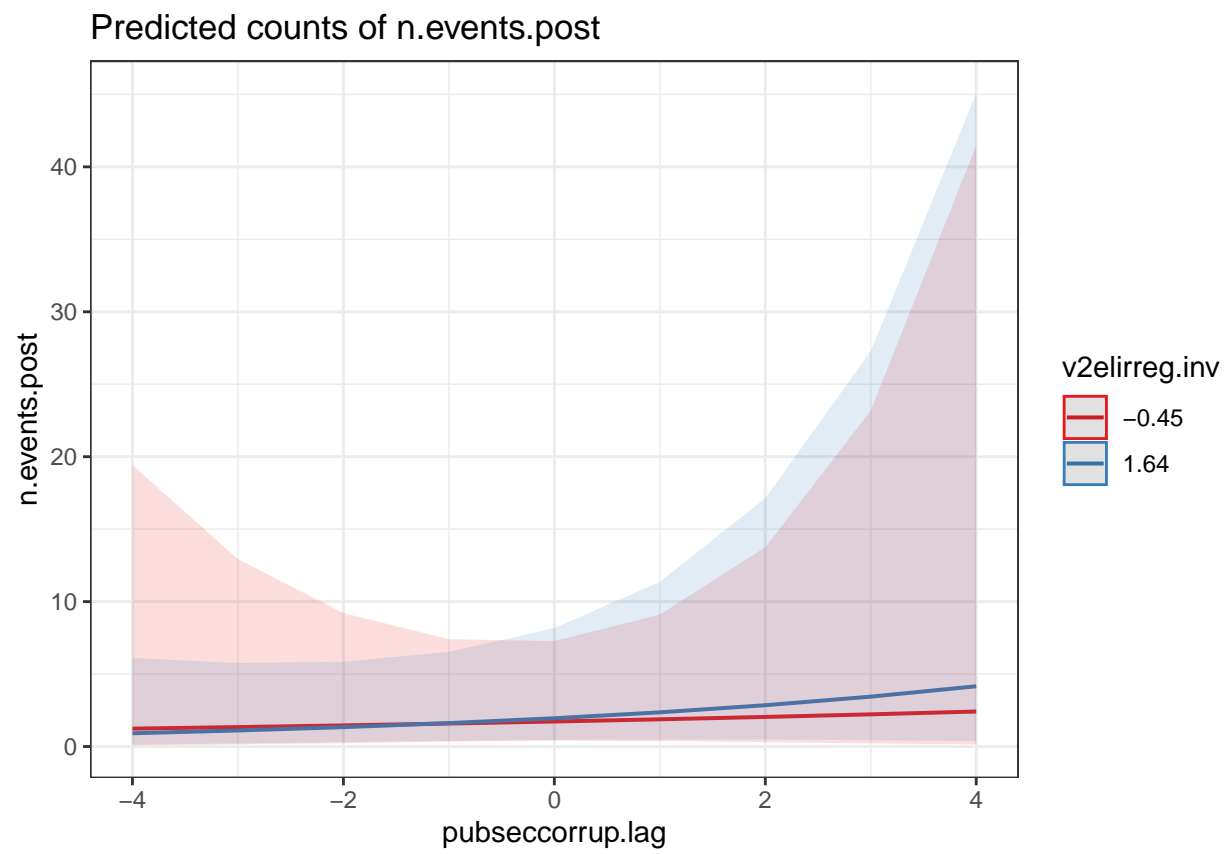
Figure 6: Fraud, public sector corruption, and number of protest events

References

Daxecker, Ursula, Elio Amicarelli, and Alexander Jung. 2019. "Electoral contention and violence (ECAV): A new dataset." *Journal of Peace Research* 56(5): 714–723.