Endogenous Policymaking
Supplemental Information

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This document presents materials that are not intended for print publication, but which will be of interest to some readers. It includes the following sections:

A Recoding LSCE: Expended discussion of the coding of LSCe countries, and replication of original results after recoding Honduras.

B Voting and the Domestic Economy: Examination of whether economic voting varies with CH's Neoliberalism index.

C GET and the Neoliberalism Index: Assessment of the association between GET and CH's Neoliberalism index.

D GET and Presidential Popularity: Extended results for the analysis of the impact of GET on popularity in LSCE countries.

A Recoding LSCE

Our indicator of dependence on commodities is computed by a ratio in which the numerator is the value of all manufacturing exports subtracted from the all merchandise exports (which amounts to all food and mineral commodities) and the denominator is the sum of all merchandise and services exports. All data, as detailed in the Supplemental Information of the original paper, was obtained from the World Trade Organization.

CH's critique of our our LSCE concept and classification prompted us to discover a seven-fold increase in manufacture exports between 1999 and 2000 in Honduras. This turned out to be a statistical quirk caused by the exclusion of exports from "processing zone trade" prior to 2000. EPZs existed in Honduras since the 1970s, but their importance increased markedly after 1990, as reported by Jenkins, Larrain & Esquivel (1998).

EPZs were also excluded from statistics for Guatemala prior to 2002, and for El Salvador prior to 1990s. In the latter case, this exclusion is all but irrelevant, as EPZs were still very incipient at that time in the country (Jenkins, Larrain & Esquivel 1998, p.29). In Guatemala, the exclusion was slightly more relevant than in El Salvador, but considerably less so than in Honduras.

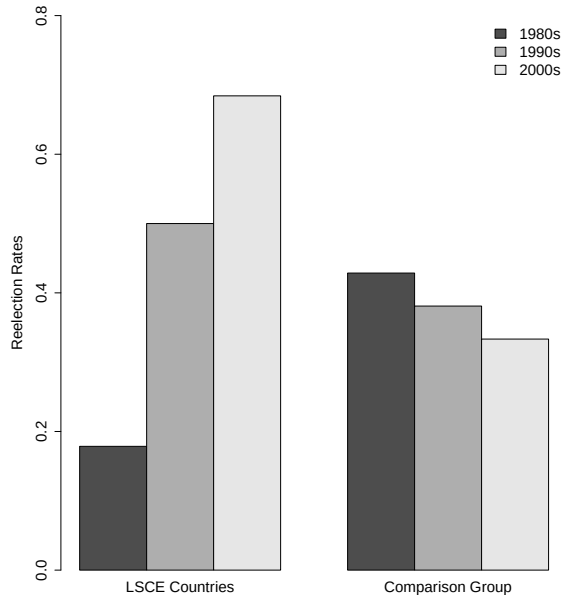

Figure A.1: Reelection Rates in LSCE Countries and in the Comparison Group

Figure shows that reelection rates increased by decade in low savings commodity exporting countries whose economies are determined by GET, but remained fairly stable in countries in the comparison group. Groups are defined per Figure 1, with the exception of Honduras, which is considered LSCE up until the 1998 election, and non-LSCE starting in the 2002 election.

In Figure 1, in the main body of the paper, we report the "corrected" positions of Honduras and Guatemala that were obtained by linearly interpolating dependence on commodities between 1990 and the first year for which EPZ data was included in each country. In both cases, the countries look more like their fellow "non-LSCE" countries than we had originally reported.

Still, it is reasonable to characterize Honduras as having transitioned from a "commodity" to a "maquila" economy in the period covered by our data. In this section, we reestimate our analysis recoding Honduras' four pre-2000 free and fair elections as having happened in an LSCE country.

The first result to note in Figure A.1 is that that reelection rates by period hardly change with the recoding of Honduras. Reelection rates in the first period, which in the original paper amounted to 16.7, now correspond to 17.9%. For the other two periods reelection rates are exactly the same as reported in the original paper, and substantially higher than in the 1980s.

Moreover, the main results in our paper are actually stronger with the recoding of the four Honduran elections. In *all* specifications reported in Table A.1, the estimated effects of GET on the probability of reelection in the non-LSCE sample are even closer to zero than in the original paper (reproduced as Table A.2) and the effects of GET in the LSCE sample are larger.

Table A.1: Predicting Incumbent Candidate Reelection (1980–2012, New Results)

	Mod. 1 Cl. SE	Mod. 2 FE	Mod. 3 RE	Mod. 4 Cl. SE	Mod. 5 Cl. SE
GET Index	0.072	-0.042	0.061	0.026	0.078
(Std. Error)	(0.200)	(0.394)	(0.359)	(0.181)	(0.203)
p-value	*0.721*	*0.915*	*0.864*	*0.887*	*0.702*
GET Index×LSCE	1.123	1.490	1.172	1.009	1.133
	(0.411)	(0.607)	(0.528)	(0.396)	(0.427)
	0.006	*0.014*	*0.026*	*0.011*	*0.008*
Incumbent Ran				2.440	
				(0.785)	
				0.002	
Ideology=Right					0.110
					(0.516)
					0.830
(Intercept)	-0.757		-0.818	-0.948	-0.860
	(0.442)		(0.438)	(0.458)	(0.662)
	0.087		*0.062*	*0.039*	*0.194*
LSCE	0.099		0.148	-0.050	0.114
	(0.536)		(0.541)	(0.555)	(0.544)
	0.854		*0.785*	*0.928*	*0.834*
Baseline Error	0.368	0.368	0.368	0.368	0.368
Model Error	0.311	0.292	0.292	0.245	0.311
Prop. Red in Error	0.154	0.205	0.205	0.333	0.154
Countries	18	18	18	18	18
N	106	106	106	106	106
First Differences (GET)					
ΔProb. LSCE	0.48	0.52	0.49	0.43	0.49
Conf. Interval	[0.26,0.71]	[0.20,0.79]	[0.21,0.73]	[0.17,0.66]	[0.24,0.74]
ΔProb. Comparison	0.02	-0.02	0.03	0.01	0.03
Conf. Interval	[-0.11,0.17]	[-0.36,0.30]	[-0.25,0.31]	[-0.13,0.14]	[-0.11,0.19]

Table A.2: Predicting Incumbent Candidate Reelection (1980–2012, Original Results)

	Mod. 1 Cl. SE	Mod. 2 FE	Mod. 3 RE	Mod. 4 Cl. SE	Mod. 5 Cl. SE
GET Index	0.152	0.025	0.136	0.103	0.158
(Std. Error)	(0.181)	(0.385)	(0.346)	(0.161)	(0.183)
p-value	*0.401*	*0.949*	*0.695*	*0.522*	*0.388*
GET Index×LSCE	1.000	1.384	1.058	0.893	1.009
	(0.397)	(0.597)	(0.521)	(0.383)	(0.413)
	0.012	*0.020*	*0.042*	*0.020*	*0.014*
Incumbent Ran				2.453	
				(0.793)	
				0.002	
Ideology=Right					0.104
					(0.510)
					0.838
(Intercept)	-0.806		-0.852	-0.981	-0.904
	(0.408)		(0.411)	(0.412)	(0.636)
	0.048		*0.038*	*0.017*	*0.155*
LSCE	0.159		0.185	-0.027	0.175
	(0.521)		(0.528)	(0.533)	(0.533)
	0.761		*0.727*	*0.959*	*0.743*
Baseline Error	0.368	0.368	0.368	0.368	0.368
Model Error	0.311	0.302	0.283	0.245	0.311
Prop. Red. in Error	0.154	0.179	0.231	0.333	0.154
Countries	18	18	18	18	18
N	106	106	106	106	106
First Differences (GET)					
ΔProb. LSCE	0.47	0.51	0.48	0.41	0.48
Conf. Interval	[0.23,0.69]	[0.17,0.78]	[0.18,0.71]	[0.18,0.66]	[0.25, 0.71]
ΔProb. Comparison	0.06	0.01	0.05	0.04	0.06
Conf. Interval	[-0.07,0.19]	[-0.30, 0.33]	[-0.21, 0.30]	[-0.07,0.16]	[-0.06,0.20]

Coefficients are logit estimates. Standard errors are shown in parenthesis and p-values in *italics*. The table header indicates whether clustered standard errors, fixed effects, or random effects were used to account for the hierarchical structure of the data. The dependent variable is a binary indicator of whether the incumbent-supported candidate was reelected. The GET index was operationalized as the average value of the index in the 12 months prior to each election. First Differences are the change in probability of reelection associated with moving from a "bad" international economy to a "good" international economy (i.e. from one standard deviation below to one above the mean of the GET index), with the respective 95% confidence intervals, for each subsample.

B Voting and the Domestic Economy

CH's theory implies that voting with the domestic economy should vary across levels of neoliberalism. In more neoliberal regimes voters should *not* vote with the economy. In more statist regimes they should. Our theory, in contrast, states that voters vote with the economy even where the economy is strongly driven by exogenous factors and where, therefore, they "should not" cast an economic vote. In fact, we believe voters might vote or not with the economy for reasons completely unrelated to the levels of exposure. That is, voters do not decide whether or not to over- or under-weigh economic outcomes because of levels of exposure.

B.1 Data

In order to examine these competing claims, we use electoral data from the Database of Political Institutions 2015 (henceforth DPI, Cruz, Keefer & Scartascini 2016). Our main interest is in Latin American countries, but we also include developed democracies as a reference point. We rely on executive elections for countries coded as having presidencial systems and legislative elections elsewhere.[1] Elections in included in our original sample followed our coding rules for reelections, and in all other cases, elections for which the ruling party remained the same after an election were coded as reelection.[2]

We restrict the sample to "free and fair" elections by retaining only cases that meet two conditions in the electoral year. The first is that the country's `polity2` score be higher than five. The second condition is that the country has a score of 6.5 (out of 7) or higher on both DPI variables that measure legislative and executive electoral competitiveness (`liec` and `eiec`).

Our final dataset contains 337 elections held in 42 countries in the two regions between 1977 and 2014. The main independent variable of interest is economic growth, of which our preferred operationalization is the "term average growth rate." We computed this for each election by taking the average of growth rates over the preceding term. This often required eliminating the first election for each country due to the impossibility of determining what constituted the "previous term," as well as cases in which economic data did not extend back in time. If there was a change in the party leading the executive branch between elections, we used only the years following that change to compute the term average growth rates at election time. Our primary analysis is based on growth rates from World Development Indictors, but we examined data from the Penn World Tables as robustness check.[3] The mean term average growth rate in the LAC sample is 3.46 and in the Dev. Democracy sample is 2.57. We also present results using the growth rate in the last year of the term.

[1] More specifically, we used executive elections for countries in which variable `system`=0 ("presidential system") , and legislative elections a country was coded as "assembly elected" "parliamentary system" (`system`=1 or 2).

[2] We used variable `execme` to identify the party in charge of the executive branch.

[3] Correlation between the WDI and PWT measures of term average growth rates in our sample of elections is 0.98 (p-value$\ll$ 0.001).

B.2 Analysis

Our analysis is based on a simple specification that examines whether economic growth is associated with incumbent reelection:

$$Reelect(0,1)_{it} = \beta\overline{Growth}_{it} + \eta_i + \epsilon_{it} \quad (1)$$

where *Reelect* is a dichotomous indicator for whether the incumbent government secured reelection at the end of term t in country i, and $\overline{Growth}$ is the average domestic economic growth rate for the term (or last year growth rate), and η_i are country fixed effects. We estimate Equation 1 in Latin America and in the sample of Developed Democracies for comparison.

For Latin America only, we also estimate a second model that examines how the response of elections to economic growth varies across CH's neoliberalism index. We do this by including an interaction between term average growth and their index:

$$Reelect(0,1)_{it} = \beta_1\overline{Growth}_{it} + \beta_2 Neoliberalism_{it} + \beta_3\overline{Growth}_{it} \times Neoliberalism_{it} + \eta_i + \epsilon_{it} \quad (2)$$

We focus on results from simple linear probability fixed-effects models, which is our preferred specification, but we also report marginal effects estimated via conditional logit fixed-effects models. Results are almost identical with either estimation method.

B.3 Results

The first four columns in Table A.3 show results for Equation 1, using either operationalization of growth, first in the sample of Developed Democracies and then in the LAC sample. We find results that are almost identical in the two regions, and somewhat stronger than what was reported by Leigh (2009) using a similar approach in a different sample of countries and years (i.e. 0.039). In both regions, economic voting is actually weaker if we look only at growth in the year preceding each election (Models 2 and 4), instead of taking a average of the term (Models 1 and 3), which, to some extent, contradicts the conventional wisdom (see, for instance, Achen & Bartels 2016).

The crucial test of CH's theory, however, is presented in Models 5 and 6, which report results for Equation 2. Here we examine whether economic voting varies with neoliberalism in Latin America. The sample is smaller due to limited coverage of their neoliberalism index.

Results show that economic voting essentially *does not* vary with neoliberalism, as the magnitude of the coefficient on the interaction term is very small, and far from conventional levels of statistical significance. This is not to say that the economic vote is equally strong (or weak) in all places. It is simply the case that economic voting does *not* vary with whatever it is that neoliberalism indicator is capturing. This result strongly contradicts CH's theory.

This null result is not driven by the linearity assumption implicit in our interaction models reported in Table A.3. To show this, we estimated the simple regression of electoral results on average growth for each quintile of the distribution of exposure to shocks. Graphical results, reported in Figure A.2 show that the expectation that economic voting in "more neoliberal" countries is not confirmed. Economic voting, if anything, seems ever so slightly stronger in more neoliberal places, though differences in intensity across the subsets of cases defined by the quintiles of the distribution are not particularly pronounced.

Table A.3: Domestic Economic Growth and Elections

	Dev. Democracies		Latin America & Caribbean			
	Mod. 1	Mod. 2	Mod. 3	Mod. 4	Mod. 5	Mod. 6
(Term Average) Growth	0.060		0.061		0.047	
(S.E).	(0.018)		(0.019)		(0.029)	
P-value	*0.001*		*0.002*		*0.114*	
(Last Year) Growth		(0.032)		(0.034)		(0.030)
		(0.013)		(0.013)		(0.017)
		0.018		*0.012*		*0.091*
Neoliberalism					-0.006	0.002
					(0.032)	(0.032)
					0.852	*0.953*
T. A. Growth×Neoliberalism					0.005	
					(0.010)	
					0.583	
L. Y. Growth×Neoliberalism						0.002
						(0.008)
						0.760
Countries	22	22	20	20	18	18
Years	38	38	32	32	23	23
N	214	214	123	123	86	86

Table A.4 reports marginal effects obtained by estimating conditional logit variants of the same models reported in Table A.3, above, which correspond to Equations 1 and 2. The marginal effects are very similar to those reported earlier, and, crucially, the effects of the interaction term of either specification of growth and neoliberalism are almost exactly zero.

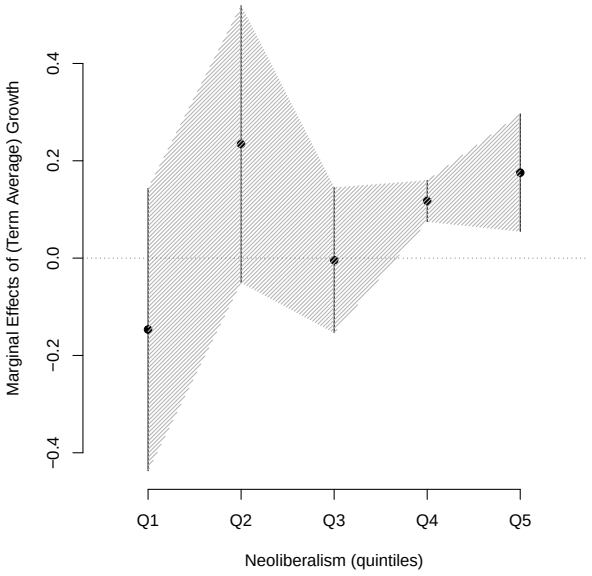

Figure A.2: Effects of Growth on Elections by Levels of Neoliberalism

Figure reports marginal effects of term average growth and standardized term average growth on election results, obtained by estimating Model 3 (in Table A.3) separately on subsets of the data defined by quintiles of the distribution of Neoliberalism. This is a non-linear alternative to reporting the null results from interactions in Models 5. See text for details.

Table A.4: Domestic Economic Growth and Elections (Conditional Logit Marginal Effects)

	Dev. Democracies		Latin America & Carribean			
	Mod. 1c	Mod. 2c	Mod. 3c c	Mod. 4c	Mod. 5c	Mod. 6c
(Term Average) Growth	0.059		0.068		0.046	
(S.E.) tag	(0.006)		(0.009)		(0.117)	
P-value	*0.022*		*0.026*		*0.029*	
(Last Year) Growth		0.031		0.034		0.026
		(0.025)		(0.025)		(0.113)
		0.014		*0.015*		*0.017*
Neoliberalism					0.013	0.009
					(0.758)	(0.792)
					0.043	*0.033*
T. A. Growth×Neoliberalism					-0.000	
					(0.975)	
					0.013	
L. Y. Growth×Neoliberalism						0.001
						(0.857)
						0.007
N	214	214	123	123	123	123

C GET and the Neoliberalism Index

In the main body of the paper we report linear correlation coefficients between the the GET index and CH's measures, as well as effects of GET on neoliberalism estimated via regression models. Table A.5 reports the panel data specifications behind those results. The first three columns are estimated on the sample of 13 countries for which CH computed their neoliberalism index. The last three columns include an interaction between the GET index an our static indicator of LSCE status. The effects of GET on neoliberalism in LSCE countries, thus, is the sum of the effect of GET on non-LSCE countries (i.e. coefficient on GET) and the coefficient on the interaction term.

Table A.5: Effects of GET on Neoliberalism Index

	Average Effects			Effects by LSCE status		
	Pooled	FE	RE	Pooled	FE	RE
GET	2.139	2.139	2.139	1.422	1.422	1.422
(SE)	(0.170)	(0.124)	(0.124)	(0.299)	(0.218)	(0.218)
P-value	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*
GET×LSCE				1.035	1.035	1.035
				(0.359)	(0.262)	(0.262)
				0.004	*<0.001*	*<0.001*
LSCE				-1.027		
				(0.282)		
				<0.001		
(Intercept)	-1.387		-1.387	-0.676		
(Intercept)	(0.133)		(0.462)	(0.235)		
(Intercept)	*<0.001*		*0.003*	*0.004*		

Table A.6 reports the country-by-country results based on a fixed-effect variable-coefficients specification from which we extracted the results we mentioned in the main body of the paper. GET has a positive predictive effect in all cases.

Table A.6: Country-by-Country Effects of GET on Neoliberalism Index

	(Intercept)	geti
Argentina	-1.234	1.637
S.E.	(0.196)	(0.250)
Bolivia	2.038	2.125
	(0.245)	(0.312)
Brazil	-4.364	2.831
	(0.309)	(0.394)
Colombia	-2.187	1.077
	(0.126)	(0.160)
Costa Rica	-2.556	1.022
	(0.124)	(0.158)
Ecuador	-2.106	2.653
	(0.373)	(0.475)
Guatemala	0.909	1.774
	(0.221)	(0.281)
Honduras	-0.812	1.879
	(0.252)	(0.321)
Mexico	-0.243	1.014
	(0.143)	(0.183)
Nicaragua	-3.731	5.192
	(0.653)	(0.832)
Peru	-2.479	3.503
	(0.437)	(0.556)
Uruguay	-0.416	1.161
	(0.140)	(0.178)
Venezuela	-0.843	1.935
	(0.261)	(0.333)

D GET and Presidential Popularity

Our raw popularity observations were collected over the years from multiple sources; in some cases, pollsters shared long data series with us, upon request. In others, we obtained sets of observations from the pollsters websites and/or reports. We also obtained some raw data from the Executive Approval Project (Carlin, Hartlyn, Hellwig, Love, Martinez-Gallardo & Singer 2016), from secondary academic sources (e.g. Pérez Liñán 2013), from journalists (e.g. Rodrigues 2018) and, in some cases, we obtained additional information from news reports in the local media. The complete data set we used is described in Table A.7.

One point worth noting is that, in one case, we did not use all the available data listed in Table A.7 when conducting the combined analysis of our eight cases, as we limit the analysis of Venezuela to the pre-2012 period, which is when the country arguably still functioned as a democracy.

Figure A.3 exemplifies the imputation process through WCALC. For each country, WCALC was applied separately to homogenize the (positive) popularity series. The use of only the positive indicator greatly expanded our data set, as for many months and several series this is the only information we posses. We estimated monthly and quarterly version of the latent

Table A.7: Periods Under Consideration by Country

	Raw Obs	Pollsters	Calendar Months		First	Last
			Total	Imputed		
Argentina	508	4	392	72	1984-10	2017-05
Brazil	501	7	374	92	1985-03	2016-04
Chile	313	6	329	133	1990-06	2017-10
Colombia	193	3	285	141	1994-02	2017-10
Ecuador	1097	5	346	24	1988-08	2017-05
Peru	673	4	440	46	1981-04	2017-11
Uruguay	406	5	375	111	1986-08	2017-10
Venezuela	300	5	356	161	1988-02	2017-09*

When estimating the effects of GET on popularity we only analyze data for Venezuela up through 2012-10, the period in the country could still be considered a democracy.

popularity indicator and also a simpler approach of averaging data points from different pollsters. In all analysis we work only with the WCALC monthly indicator of latent popularity.

Table A.8 reports the simple liner association between GET and popularity in each country. Chile is the clearly deviant case. For Peru, basic results are positive, but nos statistically different from zero. When estimating the common model described in the paper, this general pattern remains. We find stronger results when when we control for other non-economic exogenous shocks that affects some of the countries results conform even more to our expectations. However, the inclusion of these factors, and an examination of the Peruvian case require much more space than available here, so we leave it for other venues.

Table A.8: Simple Association Between GET and Popularity, by Country

	Estimate	Pr(>|t|)	R2
AR	3.91	*<0.001*	0.26
BR	9.48	*<0.001*	0.30
CH	-4.97	*<0.001*	0.40
CO	5.18	*<0.001*	0.12
EC	15.65	*<0.001*	0.50
PE	0.07	0.922	0.10
UY	7.82	*<0.001*	0.54
VZ	3.38	*<0.001*	0.15

Figure A.5 reports the simple yearly averages of popularity in our sample, which we refer to in the text. The figure is *very* similar to the trajectory of GET, which is reported in the original paper.

Figure A.5 reports the unit response functions for the variations of the common model estimated on the unbalanced popularity panel including all eight LSCE countries for which we have data. These are the results described in the text of the main body of the paper.

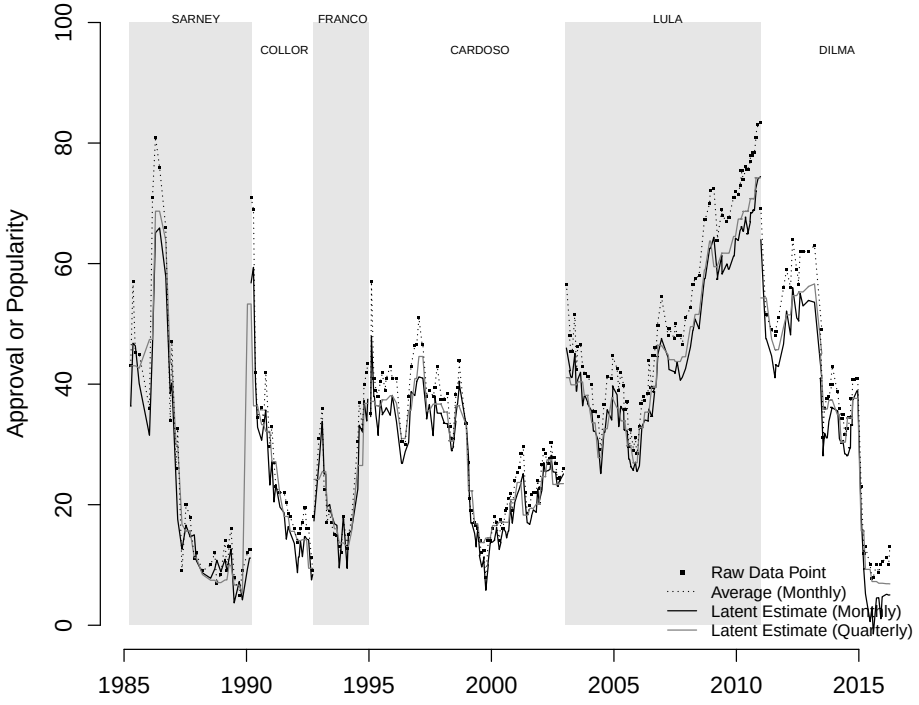

Figure A.3: Example of Raw and Latent Popularity

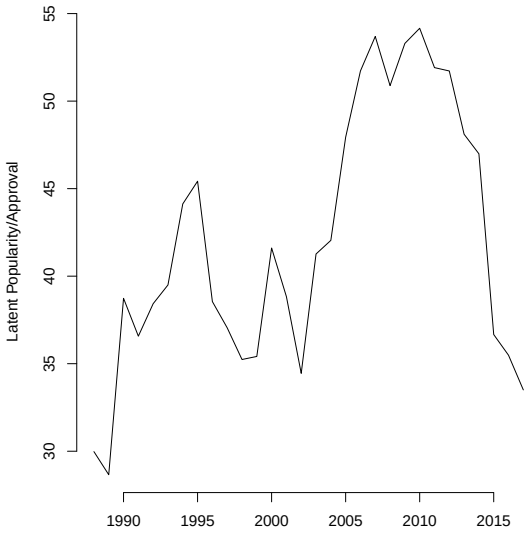

Figure A.4: Average Popularity of Presidents (1988–2017; 8 countries)

Figure reports averages within year and across country of presidential popularity in our sample of eight countries.

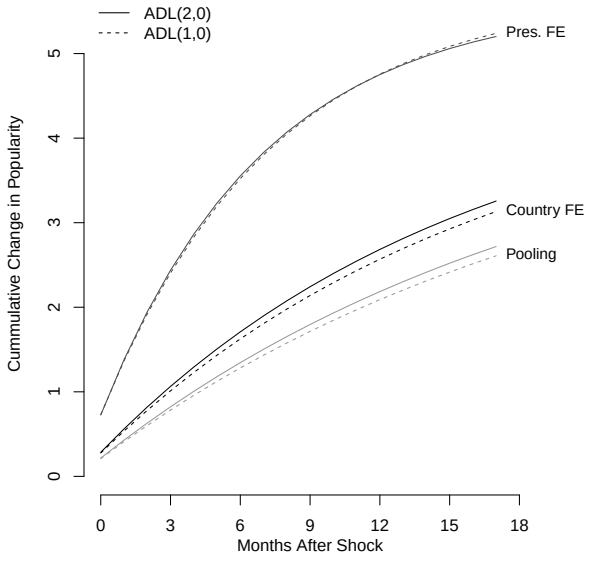

Figure A.5: Effects of GET on Popularity Under Different Regression Specifications

The dataset has 2767 monthly observations, sorted into unbalanced panels of n=8, T=278-392 and n=51, T=1-165 for the country- and president fixed-effects estimation of the common model.

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