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Who's in Charge?

Understanding Rallying and Accountability in the COVID-19 Pandemic

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Who's in Charge?

Understanding Rallying and Accountability in the COVID-19 Pandemic

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Abstract: This study explores how the COVID-19 pandemic influenced the rally and accountability effects on incumbent parties at both the national and regional levels. We argue that these effects depend on who is responsible for health policy in each country. Using a measure of static party nationalization, we analyze 988 lower house elections across 105 countries from 1960 to 2020, and predict nationalization scores for elections held after March 11, 2020. Our analysis of 35 elections in 30 countries during the pandemic reveals that the impact was more national than regional, driven by the number of casualties rather than the stringency of containment measures. The rally effect was observed only in unitary states, where the national government had full responsibility for managing the pandemic. In federal and confederal countries, where regional governments are also responsible for public health policies, no clear impact on nationalization scores was observed.

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Citizens' political reactions to the COVID-19 pandemic have been examined through the lens of a 'rally-around-the-flag' effect. In a manner similar to military and diplomatic crises as described in Mueller's (1970, 1973) original formulation, the pandemic is expected to lead to increased support for *national* governments and leaders (Devine et al. 2024). This is referred to as the rally hypothesis. According to Mueller, the mechanism behind this effect involves people uniting behind their commander-in-chief, the individual responsible for critical decisions, with the aim of maximizing their nation's prospects during the crisis.

In contrast, Bechtel and Hainmueller (2011) argue that voters' reactions to calamities align more closely with the conventional retrospective voting thesis. When analyzing the electoral consequences of floods in Germany, they contend that voters either reward or punish incumbent parties based on events that are clearly beyond their control. In flood-affected districts, voters correctly attributed responsibility for the policies that mitigated the consequences of the floods and rewarded the incumbent for their effective response, rather than punishing the government for the floods themselves. This is referred to as the accountability hypothesis. When examining the COVID-19 pandemic, and relying on data from 67 national elections held between March 2020 and May 2022, Su and Rashkova (2023) found that more stringent government responses to the pandemic, along with a higher number of COVID-19 casualties, decreased electoral support for incumbent parties. Therefore, electoral shocks (Fieldhouse et al. 2021) like the COVID-19 pandemic can affect voting behavior in two ways: first, through an unconditional short-term boost to political leaders' popularity, and second, through citizens' evaluation of how incumbents respond to crises.

With few exceptions (e.g., Lago and Blais 2025), academic research on citizens' reactions to the COVID-19 pandemic has largely overlooked the increasing power-sharing between national and regional governments. In particular, there has been little attention to the crucial question of who citizens hold responsible for managing external shocks like the pandemic. While foreign and national security policies—areas primarily influenced by military and diplomatic crises—are consistently under the control of national governments, regional governments may have varying levels of responsibility for public health policies and the management of crises such as the COVID-19 pandemic. The degree of responsibility held by regional governments depends on the level of decentralization within each country. The pandemic is highly regional in nature, with

substantial variation in the lethality and incidence of COVID-19 that can often be closely linked to regional factors (Burlina and Rodríguez-Pose 2024).

We argue that the rally and accountability effects observed in national elections depend on the degree of (de)centralization of political authority. If decentralization shapes the rally effect, its impact should vary across countries. When regional incumbents are primarily credited or blamed for political outcomes, greater variation across districts is expected, leading to lower nationalization. This occurs because in some areas the national incumbent also holds regional office, while in others they do not, forming the basis of our alternative hypothesis.

If decentralization has no significant influence, the rally effect should display a similar pattern across countries. Moreover, if the rally effect is stronger in districts with lower prior support for the incumbent, these districts should experience larger gains, increasing nationalization as party support becomes more evenly distributed. This constitutes our null hypothesis. A similar logic applies to the accountability effect, particularly regarding the electoral consequences of stringent pandemic control measures.

Traditional indicators of political response, such as changes in incumbent support or trust in national government, cannot fully capture these dynamics. National rallies may coexist with regional ones, and national declines may conceal regional gains. To address this limitation, we employ Morgenstern's (2017) measure of static party nationalization, which assesses how evenly parties' vote shares are distributed across regions. Highly nationalized systems exhibit uniform electoral support, whereas weakly nationalized systems display greater regional variation.

Changes in nationalization scores between pre- and post-pandemic elections indicate the direction of these effects. If regional incumbents benefited from the rally, nationalization scores should decrease, reflecting more diverse regional outcomes—particularly in decentralized countries. Conversely, if national incumbents were rewarded or punished, results should become more homogeneous across districts.

Our findings show that reactions to the pandemic were primarily national and driven by the number of casualties rather than the stringency of government measures. The rally effect appeared mainly in unitary countries, while in decentralized systems it largely dissipated.

This paper pursues two goals. First, it investigates whether the rally and accountability effects triggered by a novel externality such as the COVID-19 pandemic benefited national or regional incumbents. This distinction helps clarify whether voters

avored centralized government intervention or polycentric responses to the crisis. Second, it examines whether the degree of decentralization conditions the magnitude of these effects and shapes how voters evaluate competing governance strategies. The analysis draws on panel data from 988 national elections in 105 countries between 1960 and March 10, 2020, and 35 elections in 30 countries held after March 11, 2020, the day the World Health Organization declared COVID-19 a global pandemic. This focus on electoral outcomes emphasizes the lasting political consequences of the crisis, beyond short-term shifts in public opinion.

ARGUMENTS

Governance structures are increasingly decentralized across the globe. The pursuit of efficiency in providing public goods has led to more decisions that affect people's lives being made at the subnational level, both in democracies and non-democracies alike (Lago 2021). Hooghe et al. (2010, 52) have described this worldwide shift towards the decentralization of political and economic power as the dawn of the ‘era of regionalization.’ For instance, drawing on data from the Regional Authority Index (RAI) covering 48 countries between 1950 and 2010 (Hooghe et al. 2016; Shair-Rosenfield et al. 2021)¹, Lago (2021, 2) reveals that while five countries became more centralized by 2010, six experienced no change, and a notable 37 countries moved towards greater decentralization.

However, the role of subnational governments varies significantly across countries and different policy areas. According to data compiled by the Organization for Economic Cooperation and Development (OECD) and the United Cities and Local Government (UCLG) for 122 countries in 2020, subnational spending accounted for 41.9 percent of total public spending in federal countries, compared to 17.1 percent in unitary countries (OECD/UCLG 2022). When breaking down the subnational expenditure by function, health emerges as the second-largest spending item (after education), followed by general public services and social protection, showing significant variation across

¹ The *RAI* is a measure of the authority of regional governments across 10 dimensions: institutional depth, policy scope, fiscal autonomy, borrowing autonomy, representation, lawmaking, executive control, fiscal control, borrowing control, and constitutional reform.

countries.² For instance, in 2017, health spending accounted for 18 percent of subnational government expenditure on average among OECD members, ranging from 48.6 percent in Italy to less than 0.5 percent in Greece, Iceland, Ireland, Israel, and New Zealand. Conversely, defense and public order-related functions are the least important (OECD 2020).

We argue that the potential rally and accountability effects triggered by the COVID-19 pandemic are shaped by the degree of decentralization of power within states. If we focus on the rally hypothesis, the original formulation of the rally around the flag theory, as presented by Mueller (1970, 1973) in the context of military and diplomatic crises, was developed during a time when states were more centralized than they are today and focused on defense and foreign affairs, areas controlled by national governments. The progressive extensions of the rally around the flag argument to other phenomena have overlooked the different distribution of power between national and subnational governments.

When examining the rally effects of terrorist attacks (Chowanietz 2011; Holman et al. 2022), the issue is relatively straightforward, given that defense and public order and safety are well-established national policies. However, the situation is quite different when analyzing the rally effect of the COVID-19 pandemic. The COVID-19 pandemic has brought unprecedented challenges to governments and communities across the globe, emphasizing the importance of local policy answers and place-based policies in addressing the crisis (Bourdin and Levratto 2024, 258). This crucial role of regions when dealing with rally effects is exactly what existing research about health outcomes of the pandemic argues. In particular, research about the mortality of the COVID-19 clearly shows that the pandemic is very regional in nature with big differences in the severity of the pandemic across regions within countries. This claim is illustrated with three recent pieces of research. First, relying on data for 165 regions in 20 European countries, Charron et al. (2023) show that, in addition to well-known drivers, such as age and density, accessibility, the preparation of the health system or climate, variation in (social and institutional) trust explains the uneven geography of the pandemic. Regions

² Expenditure by economic function follows the Classification of the 10 Functions of Government (COFOG): general public services; defense; public order and safety; economic affairs; environmental protection; housing and community amenities; health; recreation, culture and religion; education; and social protection.

characterized by a low social and institutional trust witnessed a higher excess mortality during the first wave of the pandemic.

Second, Burlina and Rodríguez-Pose (2024) find no link between inequality or poverty and the lethality of the disease across regions in Europe. Instead, regional mortality rates are associated with factors of accessibility, pollution, overall regional wealth, and population education. In the later waves of the pandemic, the preparedness of the health system, as indicated by the number of hospital beds per capita, also became a significant factor.

Finally, Angelici et al. (2023) demonstrate that health system governance plays a crucial role in pandemic outcomes. Countries with decentralized coordination of health systems, like Italy—where regional governments hold expertise in healthcare regulation—fared better in terms of controlling contagions and reducing deaths than those countries relying on hierarchical coordination, such as France, which implemented a uniform response to the pandemic to counteract the potential negative effects of territorial self-interest. The mechanisms explaining these different outcomes include improved coordination, particularly in information sharing and tailoring policy restrictions to regional needs and priorities.

We expect that the rally effects triggered by the COVID-19 pandemic were shaped by the degree of decentralization in managing the health crisis. From a public choice perspective, Congleton (2023) argues that individuals differ in health risks, risk preferences, and valuations of forgone opportunities under pandemic policies, and that the median of these preferences varies across jurisdictions. Accordingly, in decentralized systems, electorally driven responses are more likely to reflect regional voter preferences, unlike in unitary systems with uniform, top-down approaches. Decentralization, therefore, enhances the alignment between policies and local preferences by allowing “regional differences in normative theories to affect policies” (Congleton 2023, 93). Evidence from the United States supports this reasoning: the restrictiveness of state-level lockdowns was negatively correlated with pre-pandemic economic freedom and positively correlated with Democratic vote share (Miozzi and Powell, 2023).

In highly centralized political systems, where health policy is formulated and implemented at the national level, voter reactions are expected to be relatively homogeneous across regions. Under such conditions, any rally-around-the-flag effect that emerges is likely to accrue primarily to the benefit of the national incumbent. Conversely, in decentralized systems, where health policy responsibilities are shared between national

and regional authorities, voter responses are expected to exhibit greater regional variation, and the direction and magnitude of the rally effect are less predictable. Overall, we hypothesize that rally effects associated with the COVID-19 pandemic are more likely to favor national incumbents in centralized systems than in decentralized ones.

When considering the accountability hypothesis, governments have implemented costly and stringent lockdowns to curb the spread of COVID-19, including stay-at-home orders and the closure of public institutions and private businesses. Lockdowns impose significant costs: individuals must isolate at home, while businesses are forced to close or operate below optimal capacity. They also limit access to certain goods and increase transaction costs for consuming most products (Hebert and Curry, 2022: 265). As Jørgensen et al. (2021, 1129–1130) explain, these measures have negative political, economic, and health consequences, making them unpopular.

In contrast to the potential rally effect, the accountability thesis emphasizes that voters possess heterogeneous preferences regarding the most appropriate strategies for managing pandemics—both in their private lives and in the public policies adopted by regional and national governments. Consequently, lower levels of general risk aversion and intolerance of uncertainty are expected to correlate with weaker support for stringent COVID-19 regulations. In this view, individuals' attitudes toward government interventions depend less on the objective severity of the pandemic (e.g., in terms of mortality or infection rates) and more on their subjective preferences for policy responses by public authorities.

We hypothesize that voters generally opposed policy responses to COVID-19, particularly the more stringent and long-lasting measures. Existing empirical evidence shows that incumbents anticipate these measures will have negative effects at the ballot box. Using data from 65 countries, Pulejo and Querubín (2021) demonstrate that incumbents who are eligible for re-election implemented less stringent policies in response to the pandemic, especially when elections were imminent. Anderson (2025) finds that upcoming elections in U.S. states incentivized public officials to partially align pandemic regulations with their constituents' demonstrated risk preferences, rather than basing decisions solely on epidemiological considerations.

Our expectation is that in highly centralized countries, stringent politics will be more detrimental to national incumbents than in highly decentralized countries. In the latter, where health decisions are made at the regional level (e.g., lockdowns in Germany),

the expectation is that regional incumbents will be punished when stringent measures are adopted.

To assess whether both the rally and accountability effects vary across countries depending on their level of decentralization, the dependent variable should capture changes in support for national and regional incumbents following the onset of the COVID-19 pandemic. However, incumbency advantage (e.g., winning reelection or gaining more seats than predicted based on prior elections) does not, by itself, reveal whether the pandemic's effects occurred primarily at the national or regional level. Depending on where voters directed credit or blame, both national and regional incumbents could experience gains or losses, or only one level of government might be significantly affected.

Our theoretical focus is on the *direction* of rally and accountability effects: specifically, whether voters' reactions to the pandemic were concentrated at the national or regional level, rather than on the *magnitude* of incumbents' gains or losses. If national incumbents were the main targets of voter reactions, we would expect convergence or more nationalization in electoral results across districts in national elections, whether the incumbent gained or lost votes overall. Conversely, if regional incumbents were primarily credited or blamed, we would expect greater cross-district variation in electoral outcomes in national elections, since the national incumbent party may govern regional executives in some areas but not others. In such cases, nationalization would decrease.

Nationalization measures the *spatial distribution* of electoral support across districts, enabling us to assess whether the COVID-19 crisis produced more nationally homogeneous or heterogeneous electoral responses. Measures focusing solely on national or regional incumbents cannot capture this territorial dynamic. Accordingly, we analyze changes in the *geographical dispersion* of partisan support between the last national election before the pandemic and the first national election after it.

The key distinction between highly centralized and decentralized countries lies in the locus of decision-making during the pandemic. In centralized systems, policy responses were determined exclusively by the national incumbent, whereas in decentralized systems, regional incumbents also exercised significant authority. Consequently, in decentralized settings, rally and accountability effects may operate at both the national and regional levels, while in centralized systems they are expected to emerge only nationally.

The preceding discussion leads to two hypotheses:

Hypothesis 1. If the rally or accountability effects operate primarily at the regional level, the degree of nationalization in national elections should decrease in highly decentralized countries compared with highly centralized countries.

Hypothesis 2. If the rally or accountability effects are primarily national, the level of nationalization in national elections should increase more in highly decentralized countries than in highly centralized ones.

DATA AND METHODS

We have compiled a dataset containing global election data from 988 lower house elections across 105 democratic countries, covering the period from 1960 to 2023. Following Boix et al. (2013), we define democratic countries as those with free and fair elections for the legislature, where the executive is accountable either directly to the people or to the elected legislature, and where at least half of the male population is eligible to vote. A detailed description of the countries and elections included in the sample can be found in the Appendix. The dataset is available at XXX.

The dependent variable in our analysis is party system nationalization (*Nationalization*), measured at the country–election–year level and including all parties receiving votes. We use the standardized and weighted Party System Nationalization Score (*PSNS_sw*) developed by Bochsler (2010), computed from the Constituency-Level Elections Archive (CLEA) database (Kollman et al. 2019; <http://www.electiondataarchive.org>).

Nationalization captures static nationalization by assessing how evenly parties' electoral support is distributed across territorial units at a given time. It can be applied at the national, party, or constituency level (Kollman et al. 2019; Morgenstern 2017, chap. 3) and corrects for biases related to unit size and the number of territorial units, improving cross-national comparability. It is considered one of the most reliable measures of static party system nationalization (Bochsler 2010, 164–165; Emanuele 2019; Kollman and Worthington 2021) and is available for many countries and elections in CLEA.

The measure uses the Gini coefficient of vote-share inequality across districts, with nationalization calculated as its inverse. Lower scores indicate weaker nationalization, while more balanced distributions across districts increase nationalization. Rally or accountability effects that boost support for the national incumbent are expected to raise nationalization, as these effects are inversely related to prior support. Consequently, districts with lower incumbent support in the previous

election should experience larger relative gains (or smaller losses) in subsequent elections. Our contribution lies in calculating nationalization scores for elections held after March 11, 2020, using CLEA data, which extends through 2023.

The rally and accountability effects are examined using two variables that capture the human toll and the strictness of government policies. First, *COVID-19 death incidence* serves as an indicator of the external shock's impact across countries and will be used to examine the potential rally effect triggered by the pandemic. This variable is measured as the total number of deaths per million, from the start of the pandemic until the day before the election, divided by the number of days between March 11, 2020, and the election date. Since the number of deaths increased over time, elections held closer to the pandemic's onset may appear less severe. Using a daily average resolves this issue. For elections held before the pandemic, the value of this variable is 0. The data source is Mathieu et al. (2020). Second, to measure government policy responses to COVID-19, we use data on *government response stringency* from the day before the national election included in the sample. This variable reflects the potential accountability effect of the pandemic. The source is the Oxford COVID-19 Government Response Tracker (OxCGRT) (Hale et al. 2021). The OxCGRT's stringency index, ranging from 0 to 100 (with 100 being the strictest), is an average of nine ordinal items at the national level: school closing, workplace closing, cancellation of public events, restrictions on gatherings, public transport closures, stay-at-home requirements, restrictions on internal movement, international travel controls, and public information campaigns (Hale et al. 2021, 530). For elections held before the pandemic, the value of this variable is 0.

The rally and accountability effects are expected to depend on the degree of decentralization of power. To capture the importance of subnational government in the decision-making process, we employ a dummy variable, *Federalism*, which divides the sample into unitary countries versus federal or confederal countries. This variable is derived from the Institutions and Elections Project (IAEP) dataset developed by Wig et al. (2015), supplemented with our estimates for missing countries. It is recoded as 0 for unitary countries and 1 for federal or confederal countries.³ We employ this measure, rather than more fine-grained ones such as the RAI, to maximize the number of observations.

³ The original variable in the IAEP dataset is labeled *iaep_ufs*.

We control for institutional, sociological, and economic variables affecting nationalization (Morgenstern 2017, chapters 5 and 6). Firstly, we use a categorical dummy variable coded 0 if the electoral system in a given election is majoritarian (plurality or majoritarian) and 1 if it is proportional or mixed representation. Countries using proportional or mixed formulas are expected to be more nationalized than those using majoritarian systems due to the greater incentives to cultivate a personal vote and the higher number of districts in the latter. The source is Bormann and Golder (2022).

Secondly, *Ethnic Fragmentation* is taken from Alesina et al. (2003). If ethnic groups are geographically concentrated and have interests distinct from other sectors of society, ethnic fragmentation should reduce nationalization.

Thirdly, the rate of change in the (constant US dollar) annual gross domestic product (*GDP Annual Growth Rate*) in the year prior to the election was used (World Bank 2020b). Economic shocks increase vote transfers from large (and highly nationalized) parties to small (and weakly nationalized) parties and thus weaken the nationalization of the party system (Lago and Lago-Peñas 2016). In the cross-sectional analysis reported in Table 2, which includes only elections held after March 11, 2020, we use post-pandemic GDP recovery as a variable, with 2019 GDP indexed to 100. The data are sourced from the World Bank (2020b).

Fourthly, *Country Size* (in millions of km²) was considered (World Bank 2020c). Large countries are more heterogeneous than small countries.

Finally, in a recent piece, Lago and Lago-Peñas (2025) show that in OECD countries, nationalization is negatively correlated with the rural population. Accordingly, we also control for the rural population as a percentage of the total population in the election years in every country. *Rural population* refers to people living in rural areas as defined by national statistical offices. It is calculated as the difference between the total population and the urban population. Data are available from 1960 onward, although some years are missing for several countries. The source is the World Bank (2020a).

Estimation Strategy

Tables 1 and 2 summarize the econometric strategy and main findings. To examine the direction of the rally and accountability effects triggered by the COVID-19 pandemic and to assess how decentralization shapes these effects, we employ a two-step approach. First, using panel data from 988 national elections in 105 countries between 1960 and March 10, 2020 —the day before the WHO declared COVID-19 a global

pandemic— we estimate predicted nationalization scores for post-March 11, 2020, elections under the counterfactual assumption that the pandemic had not occurred. Second, we examine 35 national elections held in 30 countries between March 11, 2020, and April 15, 2023, comparing observed nationalization scores with their predicted values.⁴ A positive deviation indicates higher-than-expected nationalization, suggesting a shift toward national incumbent parties, whereas a negative deviation implies lower-than-expected nationalization, indicating a shift toward regional incumbent parties.⁵

⁴ The World Health Organization (WHO) declared the end of the COVID-19 pandemic phase and the termination of the Public Health Emergency of International Concern on May 5, 2023.

⁵ We use a two-step procedure rather than a full-sample spline for four main reasons. First, it clearly separates pre- and post-pandemic periods, allowing precise control over the pandemic's impact on nationalization. Second, it provides flexibility in addressing specification issues and outliers during the pandemic period. Third, observations affected by the spline constitute less than 4% of the sample, which could generate multicollinearity. For example, consider two series of 100 observations: the first is 0 for the first 96 and then 2, 4, 8, 10; the second is 0 for the first 96 and then 1, 3, 2, 2. The correlation for the last four observations is negligible ($r = 0.22$, $p = 0.78$), but across all 100 observations it is very high ($r = 0.86$, $p < 0.00001$). Fourth, key pandemic-period variables (COVID-19 deaths, stringency index) are zero before the shock, further justifying separate treatment of the two periods.

Table 1. Predicting nationalization scores

	Models			
	(1)	(2)	(3)	(4)
<i>Nationalization in the previous election</i>	0.851*** (0.032)	0.368*** (0.076)	0.609*** (0.107)	0.586*** (0.111)
<i>Rural Population</i>	-0.0004** (0.0002)	0.0002 (0.0006)	-0.00065 (0.00037)	-0.00071** (0.00036)
<i>Federalism</i>	-0.0111 (0.0071)	-0.0256 (0.0138)	-0.0231 (0.0176)	-0.0242 (0.0174)
<i>GDP Annual Growth Rate</i>	0.0009 (0.0009)	-0.0006 (-0.0011)	-0.0002 (0.0011)	
<i>Proportional or mixed electoral system</i>	-0.0069 (0.0070)			
<i>Ethnic Fragmentation</i>	-0.0234 (0.0175)			
<i>Country Size</i>	0.0006 (0.0014)			
Observations	812	880	880	880
# of Countries	104	105	105	105
R ²	0.748	0.829		
Max VIF	1.66			
Hansen test of overidentification (p-value)			0.200	0.302
Sargan test of overidentification (p-value)			0.142	0.222
AR(1) (p-value)			0.002	0.002
AR(2) (p-value)			0.402	0.404
# of instruments			8	7
Estimator	OLS	LSDV	GMM	GMM
Country Fixed Effects	No	Yes	Yes	Yes

Notes: The dependent variable is *Nationalization* in all models. Country-clustered robust standard errors are in parentheses. Instruments are the lags of the nationalization scores and the corresponding exogenous variables in each model. ***p < 0.01; **p < 0.05. All models include an intercept.

Table 2. Explaining the deviation in nationalization scores

	Models					
	(5)	(6)	(7)	(8)	(9)	(10)
<i>COVID-19 death incidence</i>	0.00025** (0.00011)			0.00024** (0.00011)		
<i>Stringency Index</i>	0.00062 (0.00039)			0.00063 (0.00042)		
<i>Federalism</i>	-0.0112 (0.0230)	0.0315 (0.0412)	-0.0191 (0.0562)	-0.0060 (0.0286)	0.0302 (0.0461)	-0.0221 (0.0528)
<i>Recovery of GDP</i>	0.0010 (0.0008)	0.0009 (0.0011)	0.0015 (0.00084)			
<i>Proportional or mixed electoral system</i>	-0.0336 (0.0224)	-0.0389 (0.0239)	-0.0217 (0.0224)			
<i>COVID-19 death incidence in federal countries</i>		0.000005 (0.00008)			0.000015 (0.000075)	
<i>COVID-19 death incidence in unitary countries</i>		0.00028** (0.00012)			0.00024** (0.00011)	
<i>Stringency index in federal countries</i>			0.00049 (0.00045)			0.00055 (0.00038)
<i>Stringency index in unitary countries</i>			0.00016 (0.00041)			0.00012 (0.00042)
# of Countries	30	30	30	30	30	30
Observations	35	35	35	35	35	35
R ²	0.235	0.214	0.121	0.155	0.117	0.048
Max VIF	1.46	2.72	3.64	1.34	2.72	3.61

Note: OLS estimates. The dependent variable is the difference between observed and predicted nationalization scores after March 11, 2020, in all models. Robust standard errors are in parentheses. **p < 0.05. All models include an intercept.

In Table 1, we regress *Nationalization* scores for each election on various independent variables using multiple estimators. To address autocorrelation, we include the lagged *Nationalization* score as a right-hand-side variable. Given the data structure's dependency, robust standard errors are clustered by country. In Model 1, we use Ordinary Least Squares (OLS) with a Time-Series Cross-Section (TSCS) approach, incorporating the lagged *Nationalization*, *Rural Population*, *Federalism*, *GDP Annual Growth Rate*, and the time-invariant (or mostly time-invariant) controls: the electoral system, *Ethnic Fragmentation*, and *Country Size*. Multicollinearity is not a concern, as Variance Inflation Factors (VIF) remain below 1.67.

Model 2 employs the Least Squares Dummy Variable (LSDV) estimator. To prevent perfect multicollinearity with country-fixed effects, we exclude time-invariant controls. Removing *Ethnic Fragmentation* increases the sample size from 812 to 880,

adding one more country. However, simultaneously including individual fixed effects and the lagged explanatory variable may introduce bias in parameter estimates, particularly when the number of time points (T) is small (Beck & Katz, 2011). In our sample, T ranges from 2 to 34, with an average of 8.4. To ensure robustness, Models 3 and 4 employ the two-step System Generalized Method of Moments (GMM) estimation using the *xtabond2* command in Stata. We present specification tests for autocorrelation and overidentification in Table 1 to assess the validity of our estimates.

The second step of the analysis examines the gap between observed and predicted nationalization scores in national elections held after March 11, 2020, using cross-sectional data from 35 elections in 30 countries (Table 2). This analysis includes all countries and elections available in the CLEA database. The nationalization scores for elections held during the pandemic have been predicted using Model 4 from Table 1. We rely on this specific model because it maximizes the number of observations while providing the best fit and unbiased coefficient estimates. The dependent variable is the deviation between observed and predicted *Nationalization* scores. Figure 1 summarizes these deviations across the 38 elections in our sample, with an average deviation of -0.0096 and a standard deviation of 0.083. The range extends from -0.308 in Andorra (2023) to 0.127 in Hungary (2022). Andorra has been excluded from further analysis as a far outlier; in Model 5 from Table 2, its studentized residual is -4.987, which is 2.13 times larger in absolute value than the next highest residual, observed for Hungary (2.334).⁶ The models in this second step are estimated using OLS cross-sectional regressions, which include three control variables—federalism, GDP recovery, and the electoral system—along with two key variables that capture the rally and accountability effects: COVID-19 death incidence and the stringency index, respectively.

This cross-sectional analysis has two goals. On one hand, we are interested in determining whether the COVID-19 pandemic has triggered a rally effect, an accountability effect, both, or neither. For this, we use COVID-19 death incidence and government response stringency from the day before the national election. This is tested in Model 5 in Table 2. On the other hand, we also aim to determine whether government

⁶ A common rule of thumb considers an observation an outlier if its studentized residual exceeds ± 3 , indicating a deviation of more than three standard deviations from the predicted value. Although there is no strict definition of a “far outlier”, studentized residuals greater than 4 or 5 are often used as a reference.

structure influences the rally and accountability effects —specifically, whether these effects differ between unitary and federal countries. Models 6 and 7 address this issue by estimating distinct slopes for *COVID-19 death incidence* and the *stringency index* across unitary, federal, and confederal countries. From a technical standpoint, we begin with the dummy variable *Federalism* and its complement ($1 - \textit{Federalism}$). The multiplication between *COVID-19 death incidence* and the *stringency index* with *Federalism* provides the slopes for federal and confederal countries, while the multiplication between ($1 - \textit{Federalism}$) and *COVID-19 death incidence* and the *stringency index* provides the slopes for unitary countries. This approach allows for a direct comparison of the coefficients and standard errors of the key variables between federal and unitary countries. If government structure makes a difference, we should observe that the slopes for COVID-19 death incidence and/or the stringency index differ between unitary and non-unitary countries.

The dummy variable *Federalism* is included as a level variable to allow different intercepts for federal versus non-federal countries and to avoid omitted variable bias. Based on VIF values, multicollinearity does not appear to be a concern in this cross-sectional analysis. Finally, standard errors are replaced with robust standard errors to account for potential heteroskedasticity.

The sample of 35 observations includes all elections in the CLEA database held during the pandemic, making it non-expandable. To increase degrees of freedom and reduce potential sensitivity to model dimensionality, we apply a LASSO (Least Absolute Shrinkage and Selection Operator) procedure to identify a more parsimonious set of regressors. Consequently, in Models 8–10, we replicate Models 5–7 while excluding two of the three control variables.⁷ This raises the observation-to-regressor ratio from 7 to 11.6. Although the overall model fit declines slightly, the coefficients of interest remain consistent across specifications, reinforcing the robustness of the results.

⁷ Although *Federalism* is not statistically significant at conventional levels, retaining all interaction terms is still methodologically justified.

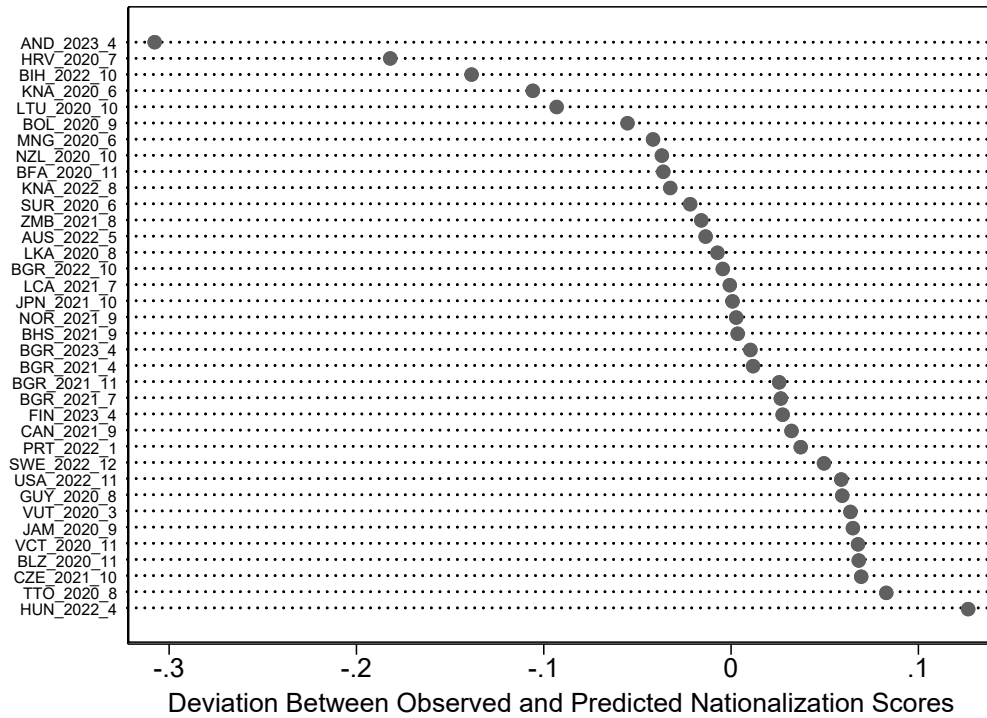


Figure 1. Difference between the observed and predicted *Nationalization* scores

RESULTS

The bar graph in Figure 2 depicts the mean nationalization scores across decades since 1960 in our sample of 105 countries. In the 1960s, the mean nationalization score was approximately 0.81, with a relatively narrow 95% confidence interval of 0.79 to 0.83. This trend of high nationalization scores continued through the 1970s and 1980s, although there was a slight decline in the 1980s with a mean score of around 0.77. The confidence intervals during these decades were consistently narrow, indicating a stable and less variable measure of nationalization.

Entering the 1990s, a noticeable drop in nationalization occurred, with the mean score falling to approximately 0.72 and the confidence interval widening slightly to range from 0.69 to 0.75. This decline persisted into the 2000s and 2010s, where the mean scores were around 0.73 and 0.70, respectively. Lago and Lago-Peñas (2025) show that among OECD members, the decline in rural population has widened geographic disparities in partisan support within countries. The confidence intervals for these decades remained fairly consistent, indicating moderate variability in nationalization scores.

In the 2020s, the mean nationalization score is around 0.72, similar to the levels observed in the 1990s. However, the 95% confidence interval for the 2020s is notably

broader, ranging from approximately 0.67 to 0.77. This wider interval suggests increased variability and uncertainty in nationalization measures during this decade. As we will show in the quantitative analysis, the increased variability is partly attributed to the different rallies generated by the COVID-19 pandemic across countries, depending on their level of decentralization.

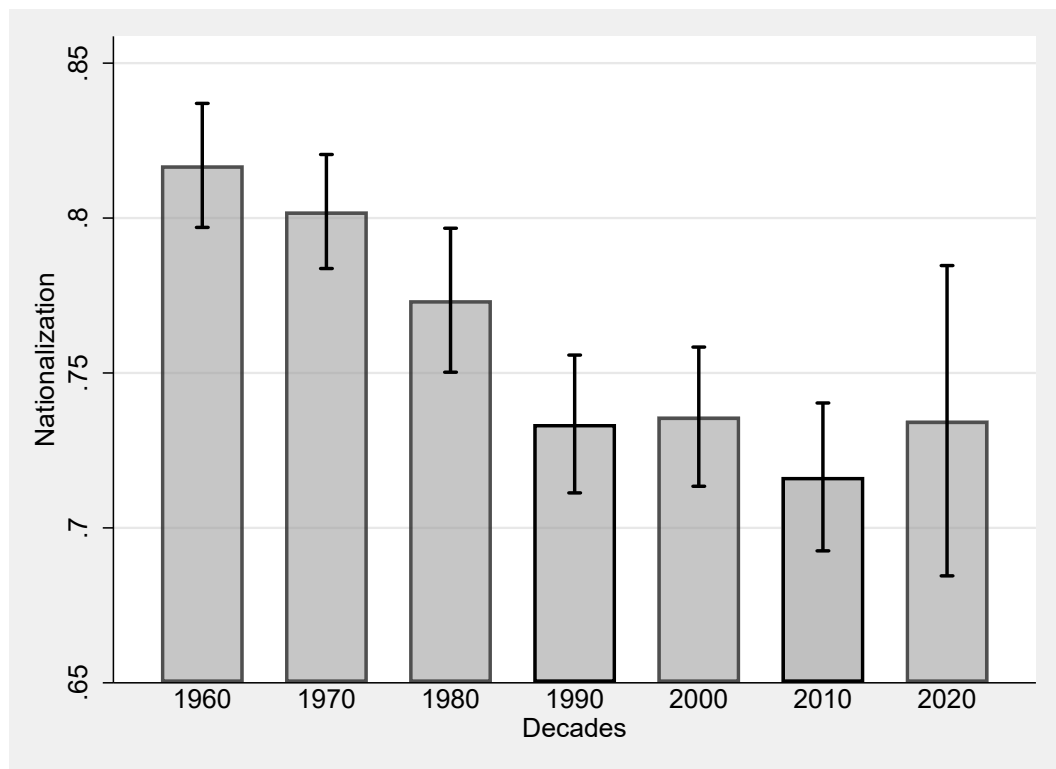


Figure 2. Nationalization scores over time

The regression results in Table 1 show a significant and consistent pattern in nationalization scores across consecutive elections. Previous-election nationalization has a strong positive effect on current election scores across all five models and is statistically significant at the 1% level. This strong inertia highlights the persistence of nationalization over time, which is crucial for accurately predicting nationalization scores in elections held after March 11, 2020.

In Model 1, which includes all controls, but no country-fixed effects, only previous-election nationalization and Rural Population (at the 5% level) are statistically significant, both with the expected signs. The model fit is 0.748.

Model 2 replaces time-invariant or mostly time-invariant variables with country-fixed effects. This improves the model fit to 0.829. The coefficient on previous-election

nationalization drops significantly between Models 1 and 2, suggesting potential Nickel bias.

Using the GMM estimator in Models 3 and 4, the coefficient rises again. Model 4 drops GDP to reduce the number of instruments and parameters, which raises p-values for over-identification tests and increases the significance of remaining exogenous variables, with Rural Population significant at the 5% level.

Table 2 reports a regression analysis examining the discrepancy between observed and predicted nationalization scores following March 11, 2020. In Model 5, we focus on two determinants: the cumulative number of fatalities due to COVID-19 per 10,000 people in the country, capturing the potential rally effect, and government response stringency from the day before the national election, capturing the potential accountability effect. Interestingly, *COVID-19 death incidence* is the only significant variable (at the 5% level); the positive coefficient suggests that higher death rates during the pandemic increase the nationalization of election results. This finding indicates that national incumbents, rather than regional ones, are the crucial actors for voters during the COVID-19 pandemic. The *Stringency Index* also exhibits a positive effect, although it is not statistically significant at conventional levels. The results indicate that neither government structure nor economic expansion significantly influenced shifts in nationalization after March 11, 2020.

When examining the cumulative number of fatalities due to COVID-19 in unitary, federal, and confederal countries in Model 6, only the slope for unitary countries is positive and statistically significant at the 5% level. In other words, a more severe pandemic boosts nationalization in unitary countries, but not in federal countries.⁸ Model

⁸ The relatively small sample size in Table 2 raises concerns about the sources of the observed results. To evaluate the robustness of our findings, the Appendix C presents a jackknife analysis in which Model 6 from Table 2 is re-estimated using a leave-one-observation-out procedure. This analysis reports the jackknife estimates for the coefficients of COVID-19 death incidence in both federal and unitary countries, along with the corresponding 95% confidence intervals. These tests assess the sensitivity of the results to influential cases or potential outliers. The effect of COVID-19 death incidence remains statistically significant at the 5% level across all iterations, indicating that our findings are not driven by any single observation. Overall, the results remain substantively unchanged, reinforcing the robustness of our conclusions.

7 shows that government response stringency does not play a statistically significant role in both unitary and non-unitary countries.⁹

Figure 3 illustrates the effect of *COVID-19 death incidence* on nationalization scores in both unitary and federal countries, with 95% confidence intervals. The simulations are based on Model 6 reported in Table 2. This analysis focuses on four quartiles of COVID-19 death incidence among the countries included in the second analysis. For federal countries, nationalization scores remain consistent with expected values across all four quartiles of death incidence. In contrast, unitary countries show a notable increase in nationalization as the pandemic becomes more severe. Specifically, in the third and fourth quartiles —where COVID-19 death incidence is highest— nationalization scores are higher than expected and statistically significant. The effect is quite large: about 0.03 points in nationalization in the third quartile of death incidence and about 0.1 points in the fourth quartile. These findings suggest that the rally effect benefiting national incumbent parties in response to the COVID-19 crisis is evident only in unitary countries.

⁹ As a robustness check, we also combined Models 6 and 7 to simultaneously include both COVID-19 death incidence and the Stringency Index. The results do not change qualitatively.

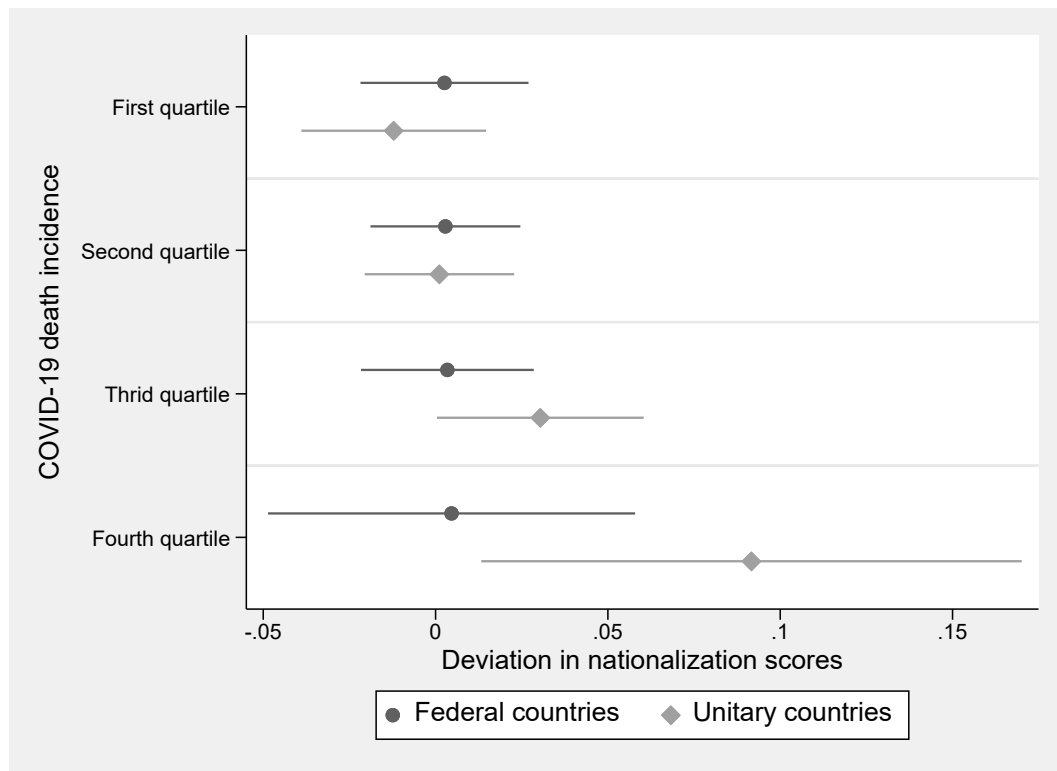


Figure 3. The effect of death rates during the pandemic on nationalization scores

DISCUSSION AND INTERPRETATION

In recent decades, particularly during the COVID-19 pandemic, a vibrant body of research has examined whether external shocks generate rally and accountability effects. Using both election results and individual-level data, studies typically focus on either national or regional incumbents. Relying on Mueller's (1970) original formulation of the "rally-around-the-flag" effect, their crucial assumption is that citizens assign political responsibility for crises to a single level of government. However, this assumption is flawed, given the increasing power-sharing between national and regional governments in the 21st century.

In the specific case of the COVID-19 pandemic, regional governments may have varying levels of responsibility for public health policies and crisis management. This power-sharing dynamic contrasts with the initial "rally-around-the-flag" effect documented by Mueller, who focused on foreign and national security policies—domains consistently under national control. Thus, it is entirely possible to observe rally and accountability effects impacting both national and regional incumbents, only one of them, or neither. Existing research calls for an analysis of these effects' direction and whether decentralization influences them. This is the gap this paper addresses.

Relying on a measure of static party nationalization—assessing the homogeneity of a party’s geographic vote distribution—we determine whether the rally and accountability effects triggered by COVID-19 are national or regional. Our empirical analysis follows two steps. First, we predict nationalization scores for elections held after March 11, 2020, relying on data from 988 lower-house elections across 105 countries from 1960 to March 10, 2020. Second, we examine whether COVID-19 casualties and policy stringency explain deviations between observed and predicted nationalization scores in 35 elections across 30 countries.

Our results strongly suggest that reactions to the pandemic are primarily national in nature, driven by casualty numbers rather than policy stringency. Consequently, rally effects benefit national incumbents rather than regional ones. Importantly, this rally effect is confined to unitary countries, where national governments hold full crisis-management authority. In federal and confederal systems, we do not observe a clear impact of the pandemic on nationalization scores.

These findings highlight the intricate dynamics of political support during crises, emphasizing how governance structure shapes public perception and response. The extent of centralization influences whether crisis-induced solidarity benefits national leaders. While our study aligns with the understanding that incumbents often gain support during external threats, we argue that existing theories may overlook the role of policy implementation authority in shaping these dynamics.

Our findings contribute to the literature, but further research is needed to refine our understanding of rally effects in response to external shocks. Future studies could incorporate individual-level data to explore how crises shape voter behavior and perceptions more granularly, enhancing our comprehension of political responses to crises and their implications for democratic governance.

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ONLINE APPENDIX

A. Sample of countries and elections when predicting nationalization scores

Country	Elections	Country	Elections	Country	Elections
Albania	6	Andorra	6	Antigua and Barbuda	6
Argentina	19	Australia	24	Austria	17
Bahamas	6	Bangladesh	5	Barbados	12
Belgium	19	Belize	10	Benin	5
Bolivia	10	Bosnia and Herzegovina	8	Botswana	13
Bulgaria	9	Brazil	11	Canada	20
Cape Verde	6	Chile	9	Colombia	4
Comoros	2	Costa Rica	16	Croatia	8
Cyprus	9	Czech Republic	10	Denmark	23
Dominica	7	Dominican Republic	13	Ecuador	8
El Salvador	9	Estonia	9	Finland	17
France	12	Gambia	3	Georgia	3
Germany	17	Ghana	8	Greece	22
Grenada	7	Guatemala	9	Guyana	7
Honduras	6	Hungary	9	Indonesia	5
Iceland	18	India	16	Jamaica	14
Ireland	18	Italy	16	South Korea	9
Japan	21	Kenya	6	Liberia	4
Latvia	9	Lesotho	7	Luxembourg	13
Liechtenstein	10	Lithuania	8	Malawi	7
Macedonia	6	Madagascar	3	Mexico	9
Malta	14	Mauritius	13	New Zealand	19
Mongolia	7	Netherlands	18	Nigeria	4
Nicaragua	6	Niger	4	Panama	6
Norway	16	Pakistan	5	Peru	7
Papua Nueva Guinea	6	Paraguay	6	Portugal	17
Philippines	11	Poland	10	Saint Lucia	11
Romania	7	Saint Kitts and Nevis	10	Sierra Leone	5
Senegal	3	Seychelles	3	Solomon Islands	8
Slovakia	3	Slovenia	8	Sri Lanka	7
South Africa	8	Spain	16	Sweden	19
St. Vincent and the Grenadines	10	Suriname	5	Trinidad and Tobago	15
Switzerland	16	Thailand	11	Ukraine	8
Turkey	16	UK	17	United States	32
Uruguay	10	Vanuatu	10	Zambia	4

B. Sample of countries and elections after the COVID-19 outbreak

Andorra, 2023; Australia, 2022; Bahamas, 2021; Bolivia, 2020; Bosnia and Herzegovina, 2022; Belize, 2020; Bulgaria, 2021, 2021, 2021, 2022, 2023; Canada, 2021; Sri Lanka, 2020; Croatia, 2020; Czech Republic, 2021; Finland, 2023; Guyana, 2020; Hungary, 2022; Jamaica, 2020; Japan, 2021; Lithuania, 2020; Mongolia, 2020; Vanuatu, 2020; New Zealand, 2020; Norway, 2021; Portugal, 2022; Saint Kitts and Nevis, 2020, 2022; Saint Lucia, 2021; St. Vincent and the Grenadines, 2020; Suriname, 2020; Sweden, 2022; Trinidad and Tobago, 2020; United States, 2022; Burkina Faso, 2020; Zambia, 2021.

C. Jackknife Estimates of COVID-19 Death Incidence Effects in Unitary and Federal Countries, Based on Model 6

