DECENTRALIZATION AND ELECTORAL SWINGS

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Abstract: We explore how the uniformity of electoral swings in the district vote within countries is affected by the level of economic and political decentralization. We rely on district-level data from OECD countries in two consecutive elections before and after the Great Recession to show that as regional governments exert more influence over the central government districts deviate less from the overall pattern of change in support of the national incumbent party. The causal mechanism accounting for the effect of decentralization on dynamic nationalization is examined with individual panel data from national elections in Canada and Spain.
Key words: Decentralization, dynamic nationalization, electoral swing, Great Recession.

INTRODUCTION

Swing districts or regions are decisive in mass elections. Given that parties and candidates have limited resources, they make deliberate and careful choices about where to invest their mobilization efforts and allocate their targetable goods. The logic of targeting a swing district or region is particularly compelling because doing so can make the difference between winning and losing seats (Cox, 2009; Golder et al., 2017: chapter 4). There is overwhelming evidence across a wide variety of countries and institutional settings that the allocation of grants (i.e., transfers) from central to sub-national governments is targeted to swing districts (see, for instance, the empirical evidence from third-wave democracies such as Albania (Case, 2001), India (Arulampalam et al., 2009), Russia (Marques et al., 2016), Senegal (Caldeira, 2012) or Spain (Castells and Solé-Ollé, 2005). Not surprisingly, as a consequence, voters in swing districts themselves anticipate that they will benefit from the subsequent allocation of public goods ("Trump Voters in a Swing District Wonder When the 'Winning' Will Start", *New York Times*, April 17, 2017).[1]

The existence and number of swing districts or regions depends to a great extent on whether there is 'similar response by all subunits to political forces in a given year' (Claggett et al., 1984: 81-82). The incentives for an unequal geographic mobilization or allocation of targetable goods increase when districts or regions do not respond with a uniform surge toward (or away from) a particular party. The concept of dynamic nationalization captures the degree of homogeneity in change of party support in each district across two or more elections. If party support moves in the same way in all districts, then support is dynamically nationalized. But if the party moves up in some districts while failing (or moving up at different rates) in others, then candidates or local issues must drive electoral decisions (Morgenstern et al., 2014: 187). In sum, the more (less) nationalized in dynamic terms a country or a party system is, the more (less) territorially homogeneous the incentives for campaigning and allocating targetable goods.

How institutional and societal variables affect dynamic nationalization remains largely unexplored. As the story about swing districts or regions mainly depends on how important local events and issues are at the expense of national policy, it is especially surprising that the influence of the decentralization of political and economic power on

[1] https://www.nytimes.com/2017/04/17/us/politics/trump-voters-swing-state.html

the consistency of change in parties' fortunes across the nation has been virtually neglected.

In this paper we fill this gap and explore how dynamic nationalization is influenced by the scope of the authority of regional governments. In order to develop a generalizable causal model, we examine three approaches to the study of subnational variation in electoral swing. The first approach relates dynamic nationalization to the incentives provided by political institutions under which parties and voters make decisions. The second is sociological and links subnational variation in electoral swings to the varying social composition of district electorates. Finally, the third is aggregate economic voting, which presumes that economic performance affects electoral swings across districts. We argue that as regional governments exert more influence over the central government districts or regions will deviate less from the overall pattern of change in support for the national incumbent party between elections. Multi-level governance blurs responsibility and then the effects of national forces on support for the incumbent national government are likely to be muted in decentralized countries if voters do not hold national incumbents accountable for their past performance. As this logic applies to all districts within a decentralized country, decentralization reduces the number of swing voters everywhere and leads to a higher dynamic nationalization; subnational variation in electoral swings diminishes if a substantial proportion of voters are not willing to switch their vote.

Our aggregate empirical evidence comes from a sample of 3,796 districts in 31 OECD countries in two consecutive lower-house elections before and after 2008, when the Great Recession started. As national forces are particularly strong during the economic crisis, we test our argument when the effect of decentralization on dynamic nationalization is expected to be weaker and then our results will me more robust. We also rely on individual panel data from national elections in two highly decentralized countries, Canada and Spain, to examine the causal mechanism through which decentralization affects dynamic nationalization.

ARGUMENTS

Interest in the extent to which swings from one election to the next are similar across districts and regions in a country goes back at least to Schaatschneider (1960) almost sixty years ago –the 'universality of political trends' (1960: 93) in his own words.

Unfortunately, with very few exceptions (Alemán and Kellam, 2017, Morgenstern et al., 2009), existing research is overwhelmingly focused on single countries and the measurement and description of changes in dynamic nationalization over time (see Morgenstern et al., 2014). How country-level institutional and societal variables affect dynamic nationalization has been barely explored. This clearly contrasts with thriving research on static nationalization (Caramani and Kollman, 2017).

As dynamic nationalization has a significant influence on regional politics and development and depends on the relevance of local issues, in this paper we explore the extent to which it is affected by the degree of decentralization of political and economic power. Decentralization of power has been a worldwide trend in recent decades, sometimes referred to as the "era of regionalization" (Hooghe et al., 2010: 52). This worldwide trend has reached the point of no return according to the World Bank: "strategies to stop decentralization are unlikely to succeed, as the pressures to decentralise are beyond government control" (World Bank, 2000: 124).

When explaining what determines dynamic nationalization, we distinguish three approaches: one that emphasizes the role of institutions, another that is focused on the importance of social cleavages, and a third one relying on aggregate economic voting. The crucial question addressed by the three approaches is whether subnational variation in electoral swings systematically differs across countries.

- **Institutional explanation**

Three types of institutional explanation have been suggested to explain subnational variation in change in support for the national incumbent party. They are focused on the executive system, the electoral system and the degree and type of decentralization of power.

Political regimes: Parliamentary regimes are expected to be more nationalized than presidential regimes. As party labels tend to be stronger in the former than in the latter, voters will be more likely to respond to national party appeals than to local or candidate-specific appeals (Mogernstern et al., 2009: 1327). Additionally, as Lublin (2017: 86) argues, presidential contests focus attention on a single office throughout the country and may help politics develop around national questions. The race for the presidency can be understood also as an election for a nationwide district with a single

seat and then regional parties rarely can run viable candidates. Presidential coattails extend this effect to legislative elections.

Electoral systems: Electoral systems are also expected to have a significant impact on dynamic nationalization. In particular, countries using Proportional Representation (PR) should be more nationalized than those using majoritarian systems for three reasons: (i) the incentives to cultivate a personal vote or, in other words, localism is greater in systems that employ single-member districts than in PR systems (Carey and Shugart, 1995); (ii) the higher the number of districts, the more challenging the linkage across districts is and more variable the elections results are (Harbers, 2010); (iii) Morgenstern et al. (2009: 1327-1328) argue that the electoral system does not make a difference for dynamic nationalization. However, the expectations we derive from their arguments (the greater the differentiation among districts when an electoral system is carved into more and smaller pieces the more difficult the coordination of campaign strategies, and the greater the variability in terms of candidate qualities when the number of districts increases) lead us to hypothesize that dynamic nationalization should be greater in countries using multi-member districts than in those using single member districts.

Decentralization of power: Morgenstern et al. (2009: 1328) argue that federalism should generate variable responsiveness to national forces in the districts (i.e., lower dynamic nationalization) because local politicians are willing and able to react to local events and issues. In unitary countries, however, national decision makers can more easily mandate local political strategy, thus reducing local variation in response. The impact of federalism on dynamic nationalization should be magnified when there is a heterogeneous population. Nevertheless, using a dummy variable identifying federal countries in a sample of 60 parties in 28 countries, Morgenstern et al. found that federalism has little impact by itself. When they restrict the sample to parliamentary regimes (most of the countries in the sample), the federalism variable has a positive and marginally significant effect on dynamic nationalization.

In contrast with this argument, we claim that decentralization reduces subnational variation in electoral swings and then increases dynamic nationalization. In particular, supporters of the national incumbent party in the previous election are more likely to vote again for it if they blame the regional government for bad national performance. In order to make governments accountable for actions and outcomes, voters must correctly assign responsibility. Clearer political responsibility leads to a stronger link between the

state of the economy (or any other national force) and electoral support for incumbents: negative economic evaluations only hurt the incumbent when voters blame the government for worsening economic conditions (Powell and Whitten, 1993; Golder et al., 2017: chapter 7). In settings with only one level of government, assigning responsibility for government actions is a relatively straightforward task, but when there are multiple levels of government and complex divisions of responsibility, the task facing citizens is more difficult. According to the evidence provided by Anderson (2006), multilevel governance undermines clarity of responsibility to national governments for national economic conditions: economic voting is weakest in countries where multilevel governance is most prominent. The more decentralized a country is, the more likely voters will be to assign credit or blame to regional incumbents.

Our point is that in highly decentralized countries the proportion of voters who think that the regional government has more influence on their well-being than the national government should be greater than in weakly decentralized countries. In the context of the Great recession, the consequence of this different attribution of responsibility is that those voters who primarily blame the regional incumbent for worsening economic conditions will be less likely to switch their vote in national elections. Thus, the degree of decentralization of power reduces the number of swing voters in national elections (i.e., groups with a relatively large number of moderate voters who are ideologically indifferent, Stokes 2005: 316, or voters who are not so solidly committed to one candidate or the other as to make all efforts or persuasion futile, Mayer 2007: 359) Accordingly, in decentralized countries partisan support will be more equal across elections than in centralized ones. As this decision-making process applies equally to individuals in all districts in decentralized countries, the expectation is that decentralization should increase dynamic nationalization.

Given that the mechanism explaining the impact of decentralization on the size of electoral swings is whether responsibility is blurred or not, the effect of decentralization on dynamic nationalization should be driven by granting regions more influence over the central government –*shared-rule*– and not by *self-rule* –the authority exercised by a region over citizens in its territory– (Elazar, 1987). This argument is in line with the conventional wisdom about how decentralization ought to inspire the creation and growth of regional parties. As explained and shown by Lublin (2012, 2014), greater self-rule may well increase incentives toward regional party formation in regional

elections as autonomy makes control of regional governments more attractive, but it may not have the same impact in statewide contests. Voters who might support a regional party that could win power or at least become a significant political force in regional contests may be more reluctant to cast a ballot for the same party at the national level if it is only a minor player. On the contrary, shared rule increases the value of regional government control through regional influence on the central government but also accentuates the importance of power in the center. A similar point is made by Brancati (2008, 2009) when she argues that decentralization encourages regional party growth as it provides opportunities to accrue power and resources at the regional level. These incentives are especially powerful when regional legislatures select some or all member of the national upper house, promoting the chance to gain influence at the national as well as regional level.

- **Sociological explanation**

Morgenstern et al. (2009: 1328), hypothesize that ethnolinguistic fragmentation should reduce dynamic nationalization. When ethnic groups are geographically concentrated, the distinctiveness of local electoral units increases and this creates discontinuities in the response of regions to national electoral forces. According to Aguilar and Sánchez-Cuenca (2008), supporters of ethnoregional parties take into account not only government performance when casting their votes but also whether the government is representing their group. As a result, voters will behave differently across districts and electoral swings will differ across them. We claim that if ethnic groups are evenly spread across the country ethnoregional fragmentation should increase dynamic nationalization as the probability of being a swing voter decreases when voting behavior is driven by identity instead of performance. If they are concentrated in specific regions however, dynamic nationalization should drop. However, ethnolinguistic fragmentation is not the only social feature we can expect to affect the homogeneity of electoral swings. Any politically salient feature of the electorate correlated with partisan political sentiment and variable across districts –such demographics as employment, average wage or elderly population– would increase local variation in response to national forces.

- **Economic voting explanation**

Electoral change increases with economic decline. According to the 'grievance asymmetry' (Nannestad and Paldam, 1994), voters tend to punish economic performance more than they reward good economic performance. The evidence from Denmark, for

instance, shows that the reaction is about three times larger to a deterioration in the economy than to an improvement (Nannestad and Paldam, 1997). If the likelihood of common movement across districts decreases with the size of the national swing (see Alemán and Kellam, 2017: 132), poor economic conditions will reduce dynamic nationalization.

EMPIRICAL ANALYSIS

The goal of our empirical analysis is twofold. First, with a view to identifying the relationship between institutions, cleavages and economic performance and dynamic nationalization, we use aggregated data from 31 OECD countries in two consecutive lower-house elections before and after 2008, when the Great Recession started. Second, we use individual data from national elections in two highly decentralized countries, Canada and Spain, to examine the causal mechanism through which decentralization affects dynamic nationalization.

Aggregate-level analysis

The effect of decentralization on the uniformity of electoral swings is examined through regression analyses of the results in 3,796 districts in 62 lower house elections in 31 OCDE countries. Israel and The Netherlands are not included since they use a single national district. Similarly, Switzerland is excluded as representatives from the four main parties (i.e., 80 percent of the votes) were members of the Federal Council, which means that the distinction between government and opposition is blurred. We focus on the last election held before or in 2008, when the Great Recession started, and the first election held after 2008.[2] See the Appendix for a description of the countries and elections included in the sample.[3]

Our analysis is conducted both at the district and national level using different measures of dynamic nationalization. First, we examine the impact of decentralization on the deviation of districts from the overall pattern of change in support for the national incumbent party. The dependent variable is the absolute difference between (i) the

[2] In Belgium, the pair of selected elections is 2010 and 2014 instead of the June 2007 – June 2010 cycle for two reasons: the instability of government coalitions and the fact that the main opposition party in the 2010 election, the Open Flemish Liberals and Democrats (Open VLD), was the second largest party in the government until April 2010. In Italy we have selected the April 2006 and the April 2008 election instead of the 2008 and 2013 as the incumbent from 2011 to 2013 was a government of technocrats led by Mario Monti.

[3] In countries using mixed-member electoral systems, we focus on single-member districts. In France, we use the election results for the first round.

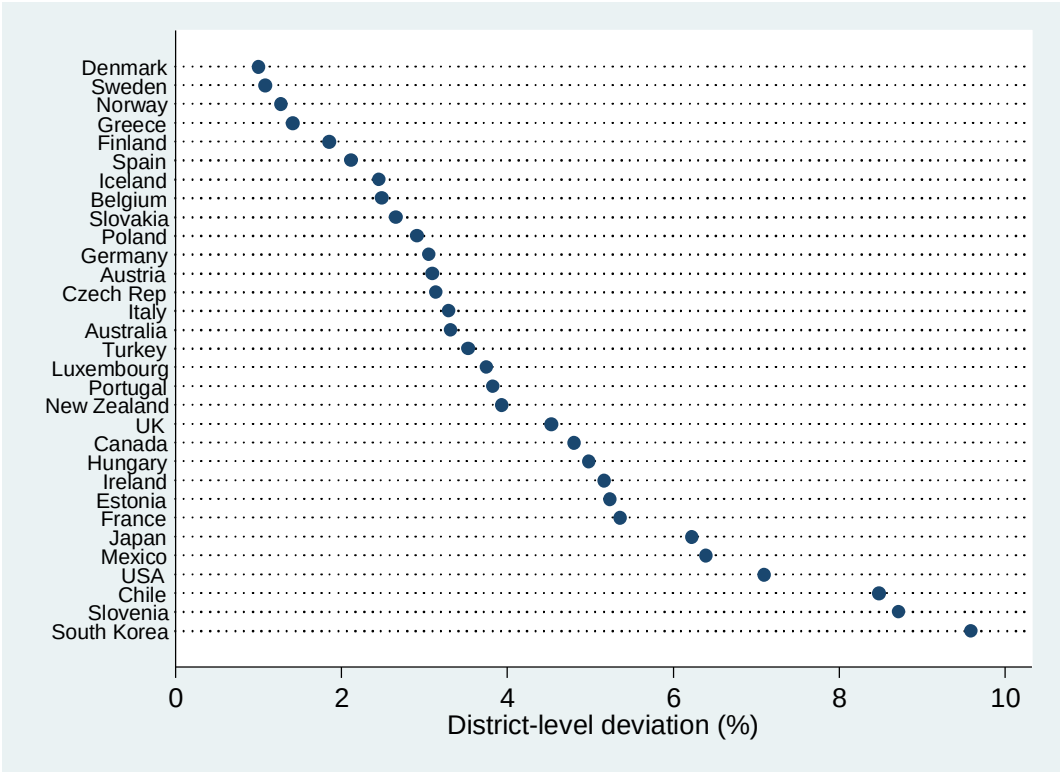
change in the national vote share of the national incumbent party between the two elections held before and after 2008[4] and (ii) the change in the district vote share of the national incumbent party between the same two elections. If the difference is 0, districts do not deviate from the overall pattern of change in support for the national incumbent party. This means that the party system is perfectly nationalized in dynamic terms. The greater the value of the variable the greater the deviation, and the lower the degree of dynamic nationalization. The formula is as follows:

$$Deviation = Abs((Incumbent\ national\ vote\ share_{election_t} - Incumbent\ national\ vote\ share_{election_{t+1}}) - (Incumbent\ district\ vote\ share_{election_t} - Incumbent\ district\ vote\ share_{election_{t+1}}))$$

The country average district deviation in our sample is displayed in Figure 1.

Figure 1:

Mean deviation of districts from the national pattern of change in support for the incumbent party



[4] Interestingly, the average (absolute) national swing for incumbent parties is smaller in the seven federal countries in our sample (4.70) than in the 24 unitary countries (9.39). The four measures of decentralization we employ in the analyses are negatively correlated with the size of the national swing for incumbent parties. This is clearly in line with the individual-level evidence provided by Anderson (2006) about economic voting and multilevel governance.

Second, we explore the relationship between dynamic nationalization and decentralization at the national level. Measurement of the dynamic nationalization of parties and party systems has been extensively debated, and there is little consensus on how to measure it or evaluate its implications (Morgenstern et al., 2014). Not surprisingly, what Morgenstern et al. suggest is employing different measures to neutralize the drawbacks of each one. Our measures of dynamic nationalization capture how support for the incumbent party in every country changes in each district between the last lower house election before the Great recession (2008) and the first one after 2008. The election results are aggregated at the district level instead of the state or regional level for two reasons. On the one hand, it is in individual districts that parties and candidates decide whether or not to enter the electoral fray and how they distribute their resources, and voters make up their mind about how to vote (Cox, 1997). On the other, districts are easily comparable across countries, while the relevance and meaning of regions or states dramatically differ in a comparative perspective. Those districts whose boundaries change between the two elections or new districts in the second election are excluded. Similarly, uncontested districts by the incumbent party in one or the two elections are also excluded. In all electoral systems, we focus on districts in the lowest electoral tier. Finally, in those countries where there is a government coalition in t, the results of all parties in the coalition in t and t+1 are aggregated.

We have chosen two measures of dynamic nationalization at the national level. The first is the correlation of the district vote across the two elections (Converse, 1969). The higher (lower) the correlation the more (less) nationalized the party system is. However, apart from not adjusting for district population (or magnitude), a crucial problem of using the correlation coefficient is that the assumption that variables have a normal distribution is violated. For instance, in Luxembourg, Iceland or Slovenia the number of districts (i.e., observations) is 4, 6 and 8, respectively. In 10 out of 31 countries in our sample the number of districts is lower than 21.

Recently, more sophisticated and data demanding techniques based on compositional data analysis and the components-of-variance model have been proposed (Morgenstern et al., 2014: 190-191). The former decomposes the distribution of predicted vote shares into a systematic and a random component. It uses random draws from parameter estimates to generate a distribution of predicted vote shares for each party across elections, conditional on the district-level outcome in the previous election. The slope coefficient captures the extent to which partisan support persists between

elections, while the national swing is the difference between the expected vote share in the current election and the actual prior mean (Alemán and Kellam, 2008; 2017). The components-of-variance model (Morgenstern and Potthoff, 2005; Morgenstern et al., 2009; Mustillo and Jung, 2016) decomposes a party's district-level vote share from two or more elections into variance between elections and variation between districts. The latter indicates variation between districts in the first election only and is measured as variance in district-level random intercepts. The remaining, or residual, variance from the cross-sectional time-series analysis or multilevel models is the measure of dynamic nationalization. Despite their conceptual and methodological differences, the results they produce are fairly similar (Alemán and Kellam, 2017: 6).

Although valuable, a major weakness of these two techniques when doing cross-national analyses is the high data requirements. To estimate precise parameters to use random draws to generate a distribution of predicted vote shares for parties, on the one hand, and fit a national mean trajectory of electoral support, on the other, a high number of districts (or any subnational unit) and/or elections is crucial. In most countries using Proportional Representation (PR), the number of districts is very low. Not surprisingly, most of the analyses of dynamic nationalization are focused on countries using first-past-the-post system. When the analysis is expanded over time and more elections are included, the problem is that the boundaries of the districts change, especially when using single-member districts, and the number of parties entering the race is not constant. As support for new parties across districts is more heterogeneous than that of established parties ((Jones and Mainwaring, 2003; Lago and Lago-Peñas 2016), the interpretation of electoral swings in the district vote is not straightforward.

In our aggregate analysis, only two elections are considered and most of the countries using PR (11 out of 19) have less than 25 districts. This means that techniques based on compositional data analysis using random draws from parameter estimates and the components-of-variance model relying on cross-sectional time-series analysis or multilevel models are not very helpful. As is well known, when the time span of the sample is short (two elections in our analysis), time-series cross-section are not appropriate as the the temporal dimension must be large enough for averaging over time to make sense. For instance, Beck (2001: 274) does not recommend using TSCS methods when the time span is lower than 10, while for Beck and Katz (2011: 332) the minimum should be 15.

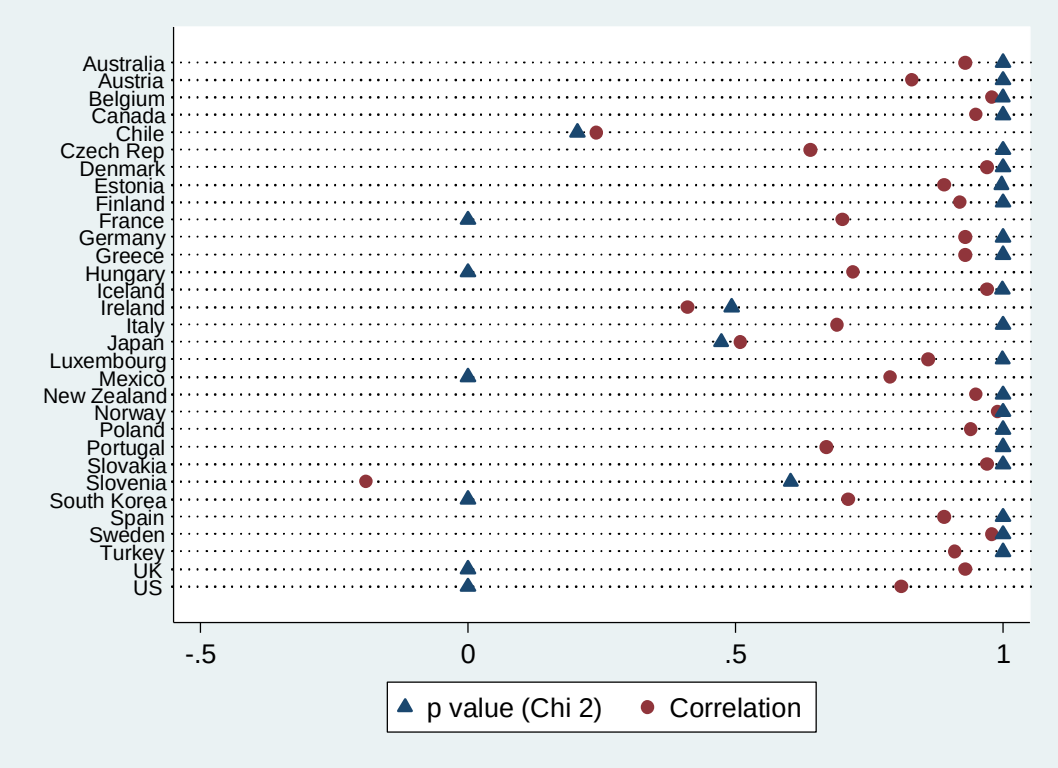
The second measure of dynamic nationalization we use in our aggregate analysis is also based on the decomposition of the incumbent's district-level vote share from two elections into variation between elections and variation between districts: the residual variance, 'the district-time effect' in Morgenstern and Potthoff's (2005) words, captures the uniformity of electoral swings. If the residual variance is equal to 0, dynamic nationalization is perfect; the higher the residual variance the weaker the dynamic nationalization. When observing the incumbent's district-level vote share in two consecutive elections in a given country, we have a two-way table with two columns (the two elections) and a number of rows equal to the number of districts in the electoral system. The null hypothesis is that change in support for the incumbent is similar across districts in the two elections. In other words, the null hypothesis represents the 'no difference' situation: if electoral swings in the district vote are uniform, then we expect that the distribution of change in support across districts to be the same in the two elections. The alternative hypothesis is that there is a difference across districts in the two elections (i.e., electoral swings are not uniform).

The chi squared statistic, χ^2, based on the differences between the observed change in vote share in the district and the expected one if the electoral swings are perfectly uniform, captures the district-time effect or the degree of dynamic nationalization. The decision rule for the χ^2 test depends on the level of significance and the degrees of freedom, defined as degrees of freedom (df) = k-1 (where k is the number of districts). If the null hypothesis is true, the observed and expected frequencies will be close in value and the χ^2 statistic will be close to zero. If the null hypothesis is false, then the χ^2 statistic will be large. As the χ^2 statistic value is a function of the number of observations (districts), our measure of dynamic nationalization is the p- value for the χ^2 distribution with degrees of freedom equal to the number of districts minus 1. If the p-value is equal to 1, there is a perfect consistency of the electorate's movement across districts and over time. The lower the value the weaker dynamic nationalization is. Districts are weighted by the number of seats to be filled (i.e., population). Apart from facilitating comparison across countries and the simplicity of its application, the measure we propose based on the χ^2 meets the requirements of adjusting by party size and the number of districts and does not assume that the variable is normally distributed.

The values of our two measures of dynamic nationalization at the national level in our sample of countries are shown in Figure 2. The correlation between the two measures

is 0.39. When comparing the results of our measures with the few available indicators using a different method, the p-value of the chi2 statistic is more highly correlated with previous measures than the Pearson correlation. For instance, Morgenstern et al. (2009) calculated dynamic nationalization for 17 countries also included in our sample. Germany, Austria, Italy, Denmark, Norway and Sweden, in this order, are the countries with the highest dynamic nationalization. The p-value of the chi square statistic for all of them is 1, the highest. On the contrary, Chile, US and Mexico, in this order, show the lowest nationalization scores in Morgenstern et al.'s estimates, while their p-values of the chi square statistic are among the lowest in our sample: 0.2047, 0 and 0, respectively.

Figure 2: The distribution of the two measures of dynamic nationalization at the national level



Our independent variables (they are the same in the two levels of analysis) have been operationalized as follows:

- *Institutional variables:* The key independent variable is the degree of decentralization in 2010. It is measured in four different ways to show the robustness of our results. First, the authority exercised by a regional government over those who live in the region, *self-rule*; second, the authority exercised by a regional government or its representatives in the country as a whole, *shared-rule*, third, the Regional authority index, *RAI*, which is the

sum of *self-rule* and *shared-rule;* the source is Hooghe et al. (2016)[5]; finally, we operationalize the variable using a dummy variable coded 1 if the country is federal; 0, otherwise. There are seven federal countries in the sample (Australia, Austria, Belgium, Canada, Germany, Mexico and US). The categorical variable *regime* captures whether the country is presidential, semi-presidential or parliamentary. The source is Cheibub et al. (2010). The electoral system employed is measured with the (log of) the *number of districts* in the lowest electoral tier based on our own calculations.[6] Luxembourg and UK are the two extremes. Finally, the *age of democracy* is the (log of) the age in years of the current regime as classified as a democracy. The year in which the regime comes into existence is coded as 1. The variable ranges from 9 in Mexico to 139 in Luxembourg and US. The source is Cheibub et al. (2010).

- *Sociological variables:* The most commonly used measure of social heterogeneity is *Fragmentation,* defined as the probability that two individuals selected at random from a country will be from different ethnic, linguistic or religious groups. The formula is as follows: $Frag = 1 - \sum_{i=1}^{N} s_{ij^2}$ where s_{ij} is the proportion of group *i (i= 1… N)* in country *j*. The higher the value of F the higher fragmentation will be. We have included the mean of ethnic and linguistic fragmentation in the models. The source is Alesina et al. (2003). The variable goes from 0 in South Korea to 0.64 in Canada.[7]

- *Economic variables:* The size of economic crisis is captured with ΔGDP, the difference in the GDP per capita (US $, constant prices, constant PPPs, reference year 2010) between the second and the first election years in every country. The source is the OECD.[8] The variable goes from -10.52 in Ireland in to +15.44 in Slovakia.

[5] The *Regional Authority Index* is a measure of the authority of regional governments across ten dimensions: institutional depth, policy scope, fiscal autonomy, borrowing autonomy, representation, law making, executive control, fiscal control, borrowing control, and constitutional reform. These ten dimensions constitute two domains of authority: self-rule, or the authority a regional government exerts within its territory; and shared rule, or the authority a regional government or its representatives exerts in the country as a whole. Country scores aggregate scores for each regional tier and individual regional governments in a country.

[6] We tested for other specifications of the electoral system variable (for instance, a categorical variable capturing whether electoral system used in the election was Majoritarian, PR, or Mixed) and the results are remarkably similar.

[7] The results do not change appreciably when fragmentation is replaced with segregation (Alesina and Zhuravskaya, 2011). We have decided to use the former measure because it is available for all countries in our sample.

[8] We tested for other specifications of the economic crisis, in particular the difference in the unemployment rate between the two election years in every count. The source is the OECD. The results do not change appreciably.

The descriptive statistics of all variables at the district and national levels are displayed in Table 1.

Table 1: Descriptive statistics

	District-level					National-level				
Variable	**Obs**	**Mean**	**Std. Dev.**	**Min**	**Max**	**Obs**	**Mean**	**Std. Dev.**	**Min**	**Max**
District-level deviation	3,796	5.17	5.56	0	59.25	-	-	-	-	-
Chi2 p value	-	-	-	-	-	31	0.73	0.41	0	1
Correlation	-	-	-	-	-	31	0.79	0.26	-0.19	0.99
RAI	3,796	18.83	9.15	0	36.99	31	13.79	10.79	0	36.99
Self-rule	3,796	15.29	5.82	0	24.99	31	11.22	7.41	0	24.99
Shared-rule	3,796	3.62	4.14	0	12.63	31	2.57	4.19	0	12.63
Federalism	3,796	0.39	0.49	0	1	31	0.23	0.43	0	1
Regime	3,796	1.69	0.86	1	3	31	1.52	0.72	1	3
ΔGDP	3,796	0.22	5.13	-10.52	15.44	31	0.02	6.61	-10.52	15.44
Fragmentation	3,796	0.20	0.18	0	0.64	31	0.21	0.18	0	0.64
(log) # Districts	3,796	5.52	0.94	1.39	6.47	31	3.93	1.41	1.39	6.47
(log) Age of democracy	3,796	4.05	0.86	2.20	4.93	31	3.88	0.81	2.20	4.93

Results

The results of the district-level analysis are shown in Table 2. All standard errors are clustered by country to account for the non-independence in the data structure. As expected, the four variables capturing the degree of decentralization of power are negatively correlated with district-level deviation from the overall pattern of change in support for the national incumbent party. In other words, decentralization increases dynamic nationalization. Interestingly, the Regional Authority Index (first model), the authority exercised by a regional government in the country (third model) and federalism (fourth model) are statistically significant (at the 0.05, 0.01 and 0.01 percent levels, respectively), while the authority exercised by a regional government over those who live in the region is not (model 2). These results strongly support our argument that what matters is blurred responsibility across administrations.

Finally, the two only statistically relevant controls are the dummy for presidential regimes and the number of districts. Both variables increase district-level variation in the incumbent party's electoral swing.

Table 2: The determinants of district-level dynamic nationalization in hard times

	Models			
Dep. Variable: District-level deviation	1	2	3	4
RAI	-0.061**			
	(0.024)			
Self-rule		-0.072		
		(0.051)		
Shared-rule			-0.158***	
			(0.037)	
Federalism				-1.570***
				(0.472)
Regime (ref. Parliamentary)				
Semi-presidential	0.010	0.213	-0.421	-0.206
	(0.571)	(0.591)	(0.541)	(0.510)
Presidential	3.419***	3.386***	3.410***	3.671***
	(0.531)	(0.582)	(0.493)	(0.499)
ΔGDP	0.029	0.023	0.038	0.022
	(0.048)	(0.051)	(0.046)	(0.043)
Fragmentation	-0.696	-1.100	-0.504	0.663
	(1.838)	(2.062)	(1.586)	(1.917)
(log) # Districts	0.666**	0.661**	0.545**	0.620***
	(0.252)	(0.262)	(0.211)	(0.221)
(log) Age of democracy	0.197	0.180	0.166	0.087
	(0.249)	(0.280)	(0.224)	(0.196)
Constant	1.084	1.196	1.337	0.943
	(1.373)	(1.431)	(1.261)	(1.298)
N	3,796	3,796	3,796	3,796
# of clusters	31	31	31	31
R^2	0.086	0.082	0.088	0.087

Estimation is by OLS. Standard errors are in parentheses.
**p<0.05; ***p<0.01 (two-tailed).

The results of our national-level estimates are displayed in Tables 3 and 4. When the dependent variable is the p-value of the chi square statistic (Table 3), the four variables capturing the degree of decentralization of power have a positive effect in the models and again *self-rule* is the only one which is not statistically significant. The main finding is that, irrespective of how the variable is measured, decentralization increases dynamic nationalization. In the first model, the authority of regional governments, *RAI*, is statistically significant at the 0.05 percent level and the R^2 of the model is 0.75. The second and third models show that the effect of decentralization on dynamic nationalization is driven by the influence of regions over the central government policymaking. While *Self-rule* is not statistically significant and the fit of the model is worse than in the previous model, 0.72, *Shared-rule* is statistically significant at the 0.01 percent level and produces a better fit, 0.76. Finally, when using the dummy variable identifying federal countries in the fourth model, the variable is statistically significant at the 0.05 percent level and the fit is slightly worse than when using *Shared-rule*.

The effect of the control variables is very robust across the four models. If we focus first on the institutional variables, presidential regimes and countries using many districts are less nationalized than parliamentary regimes and countries using PR or a limited number of districts. The two variables are statistically significant at the 0.01 percent level in the four models. Similarly, economic performance is also correlated with dynamic nationalization. The better countries do in terms of their GDP the higher the dynamic nationalization. The variable is statistically significant at the 0.01 percent level in the four models. Finally, ethnolinguistic fragmentation and the age of democracy do not significantly affect dynamic nationalization.

Table 3: The determinants of dynamic nationalization at the national level in hard times (I)

	Models			
Dep. variable: Chi2 p value	1	2	3	4
RAI	0.012**			
	(0.006)			
Self-rule		0.015		
		(0.009)		
Shared-rule			0.031***	
			(0.011)	
Federalism				0.323**
				(0.133)
Regime (ref. Parliamentary)				
Semi-presidential	-0.029	-0.023	-0.057	-0.101
	(0.109)	(0.124)	(0.097)	(0.098)
Presidential	-0.630***	-0.621***	-0.663***	-0.738***
	(0.110)	(0.115)	(0.108)	(0.122)
ΔGDP	0.019***	0.018***	0.020***	0.021***
	(0.006)	(0.006)	(0.007)	(0.006)
Fragmentation	0.188	0.029	0.098	0.006
	(0.293)	(0.277)	(0.319)	(0.307)
(log) # Districts	-0.185***	-0.180***	-0.167***	-0.173***
	(0.056)	(0.056)	(0.049)	(0.049)
(log) Age of democracy	-0.015	-0.012	0.001	-0.011
	(0.063)	(0.067)	(0.062)	(0.067)
Constant	1.404***	1.353***	1.393***	1.508***
	(0.345)	(0.353)	(0.333)	(0.360)
N	31	31	31	31
R^2	0.746	0.724	0.759	0.752

Estimation is by OLS. Robust standard errors are in parentheses.
**p<0.05; ***p<0.01 (two-tailed).

When using the Pearson correlation coefficient as dependent variable in Table 4, there is a clear outlier, Slovenia, which has been dropped.[9] The models do not work as well as when the chi the p-value of the chi square statistic is the dependent variable. The fit of the models does not exceed 0.32. Interestingly, the only statistically significant variable (at the 0.1 percent level) and again with a positive sign is the level of decentralization as captured by *Shared-rule* and the dummy variable identifying federal countries.

Table 4: The determinants of dynamic nationalization at the national level in hard times (II)

	Models			
Dep. variable: Correlation	1	2	3	4
RAI	0.003 (0.003)			
Self-rule		0.004 (0.006)		
Shared-rule			0.008* (0.005)	
Federalism				0.123* (0.064)
Regime (ref. Parliamentary)				
Semi-presidential	-0.025 (0.088)	-0.023 (0.088)	-0.033 (0.087)	-0.052 (0.086)
Presidential	-0.214 (0.140)	-0.211 (0.138)	-0.222 (0.145)	-0.253 (0.146)
ΔGDP	0.005 (0.006)	0.005 (0.006)	0.005 (0.006)	0.005 (0.006)
Fragmentation	0.198 (0.159)	0.224 (0.161)	0.172 (0.151)	0.102 (0.153)
(log) # Districts	-0.010 (0.029)	-0.009 (0.030)	-0.006 (0.026)	-0.012 (0.025)
(log) Age of democracy	0.027 (0.038)	0.028 (0.040)	0.030 (0.037)	0.022 (0.036)
Constant	0.701*** (0.198)	0.687*** (0.204)	0.702*** (0.182)	0.780*** (0.190)
N	30	30	30	30
R^2	0.291	0.283	0.296	0.318

Estimation is by OLS. Robust standard errors are in parentheses.
*p<0.10; ***p<0.01 (two-tailed)

[9] Whereas the Pearson correlation coefficient for Slovenia is -0.19, the average for the remaining thirty countries is 0.82 (the standard deviation is 0.18). When running the model with RAI, for instance, the Studentized residual for Slovenia is 3.42 while all the residuals for the remaining observations do not exceed ±1.72.

Individual-level analysis

In the individual-level analysis, we examine the mechanism that may account for the positive effect of decentralization on dynamic nationalization, namely that multilevel governance mutes the effects of national economic conditions on incumbent voting by undermining responsibility linkages to the national government. We focus on the 2011 lower house election in Catalonia and Madrid (Spain) and the 2015 federal election in British Columbia, Ontario and Quebec (Canada) for three reasons. First, in the two elections the incumbent is accountable for a poor economic performance. In Canada, the annual growth rate in 2015 was 0.9% (2.6% in 2014), the lowest since 2010, while in Spain the annual growth rate in 2011 was -1.0% (0.0% in 2010), in both cases according to the OECD. Similarly, in the five regions the regional incumbent is different than the national one.

Second, the two countries are highly decentralized. According to the Regional Authority Index elaborated by Hooghe et al. (2016), in a sample of 81 countries, in 2010 Spain was the second most decentralized in the world (Germany was the first) and Canada was the eighth. Spain was the country where subnational influence over the central government's actions (the shared-rule dimension) is strongest and Canada was the twelfth, while Spain ranked sixth and Canada eighth on the self-rule dimension.

Finally, for the two elections an Internet panel survey with the same technical characteristics was conducted by the Making Electoral Democracy Work project. The questionnaire is particularly well suited for our purposes. Apart from the conventional questions about voting behavior in the previous and current elections and conventional determinants of voting, there are specific questions tapping respondents' perceptions of the influence of the national and regional government on their well-being and satisfaction with the performance of the national government over the last 12 months. Additionally, as vote choice is captured after the election but economic evaluations and attribution of responsibilities are tapped before the election, the endogeneity of partisanship with respect to economic evaluation is a less serious concern in comparison with cross-sectional survey data. An independent survey was conducted in every region.[10]

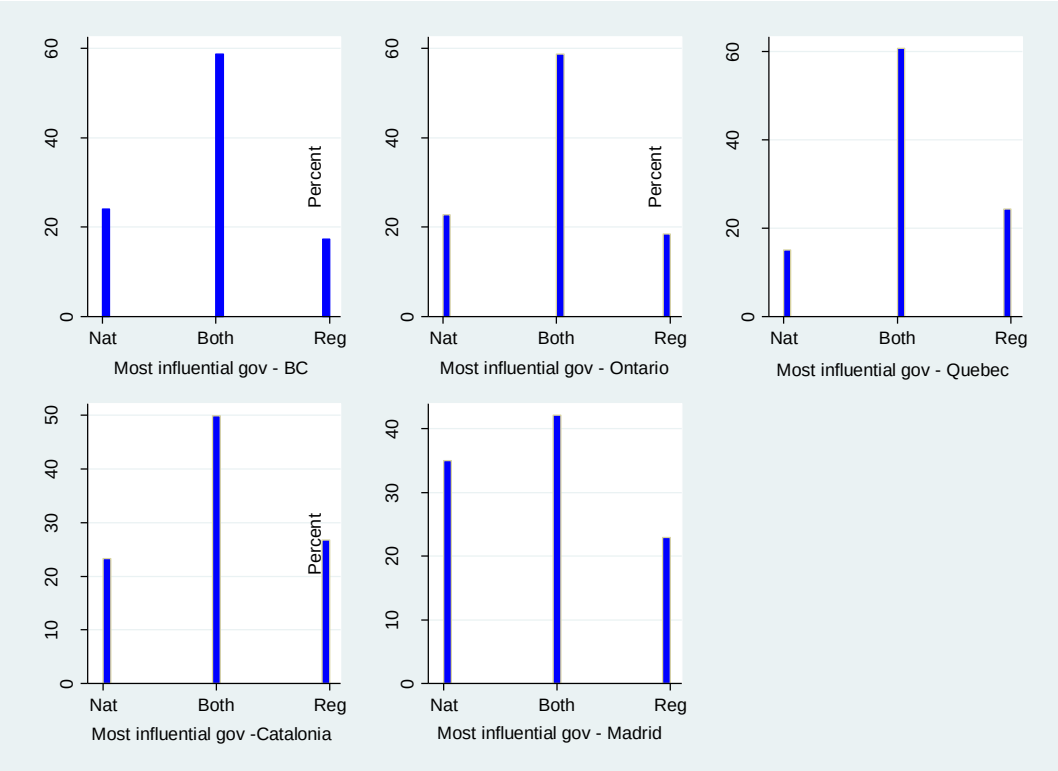
[10] The Canadian federal election was held on October 19, 2015. The pre-election survey was conducted between October 9-18, 2015, and the post-election survey between October 20 and November 5, 2015 in Ontario and between October 20 and November 6, 2015 in British Columbia and Quebec. The representative samples include 1,959 respondents in British Columbia, 1,974 in Ontario and 1,920 in Quebec in the pre-election survey, and 1,426 respondents in British Columbia, 1,545 in Ontario and 1,381

In Figure 3 we show which government, the national or the regional, is the most important for individuals in the five regions.[11] We have created a variable, *Responsibility*, capturing the difference between the influence of the policies of the regional and national governments on a scale going from 0 (very small impact) to 10 (very big impact) according to the respondent. Positive values mean that the policies of the regional government are more influential than those of the national government, while negative values mean exactly the inverse. When the difference is 0, the perceived influence of the policies of the regional and national governments is the same. As can be seen, in the five regions most of the respondents believe that the policies of the national and regional governments have a similar influence on their well-being. Interestingly, both in Quebec and Catalonia, where the regional cleavage is stronger, the regional government is seen as more influential than the national one, while in British Columbia, Ontario and Madrid it is the other way around.

in Quebec in the post-election survey. The national election in Spain was held on November 20, 2011. The pre-election survey was conducted between November 10-19, 2011, and the post-election survey between November 21 and December 4, 2011. The representative samples include 1,047 respondents in Madrid and 1,014 in Catalonia in the pre-election survey, and 899 respondents in Madrid ad 886 in Catalonia in the postelection survey. All these surveys were conducted by Harris International/Nielsen, relying on their panel of respondents. The sampling was based on a stratified, quota-based approach. Quotas were set for age, gender, education and region. For further details see www.electoraldemocracy.com

[11] The specific questions in the survey are the following: "How much influence do the policies of the following governments have on the well-being of you and your family: National government?" and "How much influence do the policies of the following governments have on the well-being of you and your family: Regional government?"

Figure 3: Perceived influence of national and regional governments in Canada and Spain



A more sophisticated analysis with data again for Canada and Spain to test the argument is conducted in Table 5. We argue that subnational variation in electoral swings is reduced in decentralized countries as multi-level governance blurs responsibility. At the individual level, this means that those who are dissatisfied with the performance of the national government will be more willing to still vote for the national incumbent party if they think that regional policies are more influential than national ones. In other words, blaming the regional government for a bad national performance reduces the number of swing voters.

The dependent variable is a dummy variable coded 1 if the respondent voted for the incumbent in the current election, the Conservative Party in Canada and the Socialist Party in Spain, 0 if the respondent voted for any other party. Given that the dependent variable is dichotomous, logistic regressions have been run. The key independent variable, *Responsibility*, is the difference between the perceived influence of the policies of the regional and national governments using a scale going from 0 (very small impact) to 10 (very big impact) The variable ranges from -10 to 10. Positive values mean that the policies of the regional government are perceived to be more

influential than those of the national government, while negative values mean exactly the inverse. When the difference is 0, the perceived influence of the policies of the regional and national governments is the same. We control for three variables: the voting decision in the previous election (2011 in Canada and 2008 in Spain) coded 1 if the respondent voted for the incumbent, 0 if the respondent voted for any other party; *attachment* to the region on a scale ranging from 0 (not attached at all) to 10 (very strongly attached); and regional dummies. The sample includes only respondents who are not satisfied at all or not very satisfied with the performance of the national government (75 percent of the respondents).

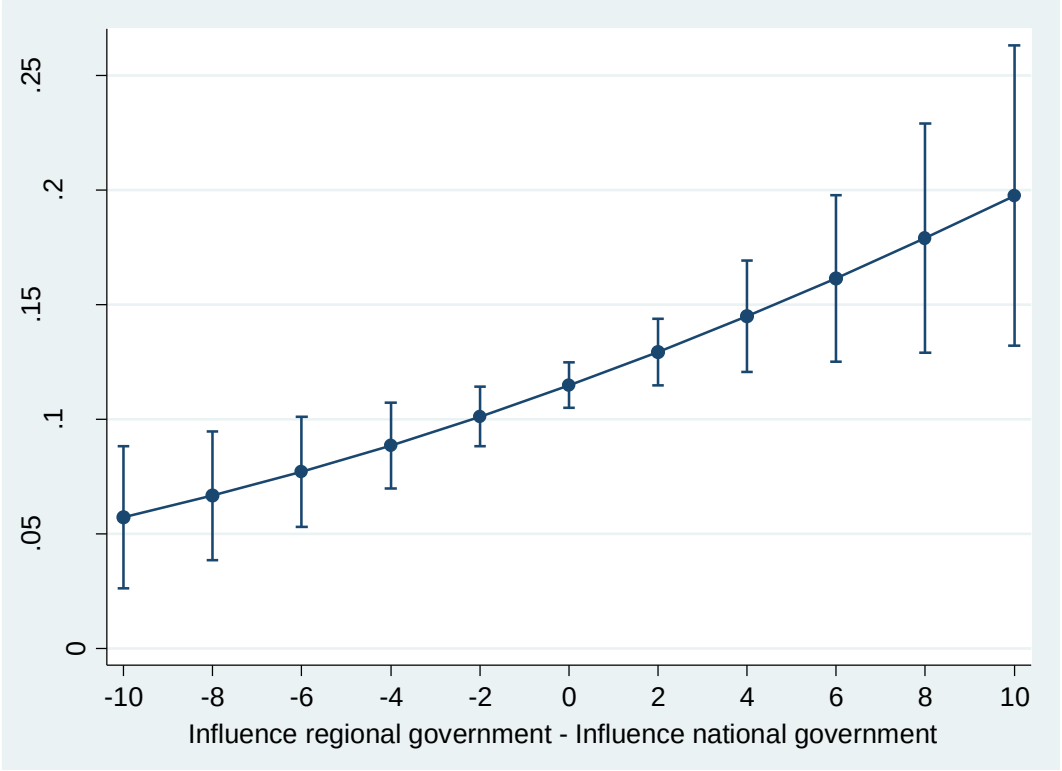
As expected, *Responsibility* has the expected positive sign and is statistically significant at the 0.01 percent level. The more influential the policies of the regional government are for the respondents' well-being, the greater the probability of supporting the national incumbent. The effect of the importance of national and regional policies on the probability of voting for the incumbent in Canada and Spain for those individuals who are not satisfied with the performance of the national government is shown in Figure 4. When all the remaining independent variables are set at their mean values, the probability of voting for the incumbent party is about the 0.06 when the respondent thinks that her well-being is exclusively affected by the policies of the national government and about the 0.20 when the only influential policies are those carried out by the regional government.

Table 4: The determinants of voting for the incumbent in Canada and Spain among respondents who are not satisfied with the performance of the national government

Dep. variable: Voting for the incumbent vs other party	
Previous vote	3.067*** (0.160)
Responsibility (regional)	0.100*** (0.035)
Attachment to the region	-0.055* (0.033)
Region (ref. Catalonia)	
Madrid	0.433** (0.183)
Quebec	-1.437*** (0.332)
Ontario	-0.503** (0.224)
British Columbia	-0.685*** (0.225)
Constant	-2.794*** (0.322)
N	2916
Pseudo R^2	0.338

Note: Estimation is by Maximum-likelihood. Standard errors are in parentheses. *p<0.1; **p<0.05; ***p<0.01 (two-tailed).

Figure 4: The effect of the perceived of national and regional policies on the probability of voting for the incumbent in Canada and Spain among respondents who are not satisfied with the performance of the national government



CONCLUSION

The institutional, sociological and economic variables explored in this study shed light on patterns of subnational variation in electoral swings. Using district-level data from OECD countries and individual-level data for national elections in Canada and Spain, we have shown that dynamic nationalization is greater in countries with a parliamentary regime, with a PR system and few districts, and where a regional government or its representatives exercise great authority in the country as a whole and under good economic times. Additionally, decentralization reduces the subnational variation in electoral swings created by presidential regimes and the presence of many districts.

Our contribution is two-fold. First, we have proposed a new measure to capture dynamic nationalization based on the χ^2 test which is particularly interesting when few elections and districts are considered. Second, we have presented an original argument accounting for the counterintuitive positive effect of decentralization on dynamic nationalization. Multi-level governance blurs responsibility and then the effects of national forces on support for the incumbent national government are likely to be muted in all districts in decentralized countries. We think that our results help to understand why and how the number of swing districts differs across countries and elections. As swing districts or regions affect party mobilization strategies and how incumbents allocate their targetable goods, our paper sheds light also on party politics and regional development.

Finally, the assumption of our argument about the positive effect of decentralization on dynamic nationalization is that voters hold the incumbent accountable for its past economic performance. A vast literature on retrospective economic voting shows that it is the case in most elections. A relevant research question that our paper opens up is the extent to which decentralization plays the same role when the vote is prospective or position issues are dominant in an election.

APPENDIX: Sample of countries and elections

Australia, 2007 and 2010; Austria, 2008 and 2013; Belgium, 2010 and 2014; Canada, 2008 and 2011; Chile, 2005 and 2009; Czech Republic, 2006 and 2010; Demark, 2007 and 2011; Estonia, 2007 and 2011; Finland, 2007 and 2011; France, 2007 and 2012; Germany, 2005 and 2009; Greece, 2007 and 2009; Hungary, 2006 and 2010; Iceland, 2007 and 2009; Ireland, 2007 and 2011; Italy, 2006 and 2008; Japan, 2005 and 2009; Luxembourg, 2004 and 2009; Mexico, 2006 and 2009; New Zealand, 2008 and 2011; Norway, 2005 and 2009; Poland, 2007 and 2011; Portugal, 2005 and 2009; Slovakia, 2006 and 2010; Slovenia, 2008 and 2011; South Korea, 2008 and 2012; Spain, 2008 and 2011; Sweden, 2006 and 2010; Turkey, 2007 and 2011; UK, 2005 and 2010; and US, 2008 and 2010.

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