

## **Decentralization And Electoral Swings**

**Ignacio Lago**

**André Blais**



**International Center for Public Policy  
Working Paper 18-04**

**Decentralization And Electoral Swings**

**Ignacio Lago**

**André Blais**

**February  
2018**

This paper was presented at the 3<sup>rd</sup> International Conference on “Decentralization after the Great Recession: Fine-tuning or Paradigm Change?” Santiago de Compostela, 26-27 October 2017, organized by GEN (University of Vigo).

International Center for Public Policy  
Andrew Young School of Policy Studies  
Georgia State University  
Atlanta, Georgia 30303  
United States of America

Phone: (404) 413-0235  
Fax: (404) 651-4449  
Email: [paulbenson@gsu.edu](mailto:paulbenson@gsu.edu)  
Internet: <http://icepp.gsu.edu/>

Copyright 2018, the Andrew Young School of Policy Studies, Georgia State University. No part of the material protected by this copyright notice may be reproduced or utilized in any form or by any means without prior written permission from the copyright owner.

## **International Center for Public Policy Andrew Young School of Policy Studies**

The Andrew Young School of Policy Studies was established at Georgia State University with the objective of promoting excellence in the design, implementation, and evaluation of public policy. In addition to two academic departments (economics and public administration), the Andrew Young School houses seven leading research centers and policy programs, including the International Center for Public Policy.

The mission of the International Center for Public Policy is to provide academic and professional training, applied research, and technical assistance in support of sound public policy and sustainable economic growth in developing and transitional economies.

The International Center for Public Policy at the Andrew Young School of Policy Studies is recognized worldwide for its efforts in support of economic and public policy reforms through technical assistance and training around the world. This reputation has been built serving a diverse client base, including the World Bank, the U.S. Agency for International Development (USAID), the United Nations Development Programme (UNDP), finance ministries, government organizations, legislative bodies and private sector institutions.

The success of the International Center for Public Policy reflects the breadth and depth of the in-house technical expertise that the International Center for Public Policy can draw upon. The Andrew Young School's faculty are leading experts in economics and public policy and have authored books, published in major academic and technical journals, and have extensive experience in designing and implementing technical assistance and training programs. Andrew Young School faculty have been active in policy reform in over 40 countries around the world. Our technical assistance strategy is not to merely provide technical prescriptions for policy reform, but to engage in a collaborative effort with the host government and donor agency to identify and analyze the issues at hand, arrive at policy solutions and implement reforms.

The International Center for Public Policy specializes in four broad policy areas:

- Fiscal policy, including tax reforms, public expenditure reviews, tax administration reform
- Fiscal decentralization, including fiscal decentralization reforms, design of intergovernmental transfer systems, urban government finance
- Budgeting and fiscal management, including local government budgeting, performance-based budgeting, capital budgeting, multi-year budgeting
- Economic analysis and revenue forecasting, including micro-simulation, time series forecasting,

For more information about our technical assistance activities and training programs, please visit our website at <https://icepp.gsu.edu> or contact us by email at [paulbenson@gsu.edu](mailto:paulbenson@gsu.edu).

## DECENTRALIZATION AND ELECTORAL SWINGS

**Ignacio Lago**

Universitat Pompeu Fabra  
Department of Political and Social Sciences  
Ramon Trias Fargas 25-27  
08005 Barcelona, Spain  
ignacio.lago@upf.edu

**André Blais**

Université de Montréal  
Département de science politique  
C.P. 6128, Succursale Centre-Ville  
Montréal, Canada  
H3C 3J7  
[andre.blais@umontreal.ca](mailto:andre.blais@umontreal.ca)

**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.

**Acknowledgments:** A previous version of this paper was presented at the 3rd International Conference on “Decentralization after the Great Recession: Fine-tuning or Paradigm Change?”, Santiago de Compostela, 26-27 October 2017, organized by GEN (University of Vigo). This conference was financially supported by the Spanish Ministry of Science and Innovation (CSO2013-40723-C2-1-R and CSO2013-40723-C2-2-R), AIREF (Independent Authority for Fiscal Responsibility), the University of Vigo and ECOBAS.

## 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, 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).<sup>1</sup>

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

---

<sup>1</sup> <https://www.nytimes.com/2017/04/17/us/politics/trump-voters-swing-state.html>

surprising that the influence of the decentralization of political and economic power on 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. Those individuals who blame the regional government for a poor economic performance have a lower probability to switch their vote in national elections than those who blame the national government. 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.

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. Given 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 be 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).

*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, which is the opposite of their theoretical expectation.

In contrast with this argument, we claim that decentralization reduces subnational variation in electoral swings (i.e., it increases dynamic nationalization). In order to make governments accountable for actions and outcomes, voters must assign responsibility. The conventional wisdom establishes that 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). 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, this means that supporters of the national incumbent party in the previous election who primarily blame the regional incumbent for worsening economic conditions will be more reluctant to switch their vote to support an opposition party in the upcoming national election than those who blame the national incumbent. As this decision-making process applies to individuals in all districts in decentralized countries, we hypothesize that the more decentralized a country is, the lower the number of swing voters in national elections. Because the national swing is lower in decentralized countries it follows, more or less mechanically, that regional or district variations around the national swing will also be lower.<sup>2</sup> Accordingly, we predict, contra conventional wisdom, that at least in the context of a recession, decentralization leads to an increase in the uniformity of electoral swings across districts, simply because the electoral swing is smaller, as fewer supporters of the incumbent party are prone to punish it for poor economic performance.

Given that the mechanism explaining the impact of decentralization on the size of electoral swings is whether responsibility is shared between the national and regional incumbents, 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

---

<sup>2</sup> For the same reason that, everything else being equal, the lower the mean the lower the standard deviation around the mean.

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 voting behavior is more stable when it 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.<sup>3</sup> See the Appendix for a description of the countries and elections included in the sample.<sup>4</sup>

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 change in the national vote share of the national incumbent party between the two elections held

---

<sup>3</sup> 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.

<sup>4</sup> In countries using mixed-member electoral systems, we focus on single-member districts. In France, we use the election results for the first round.

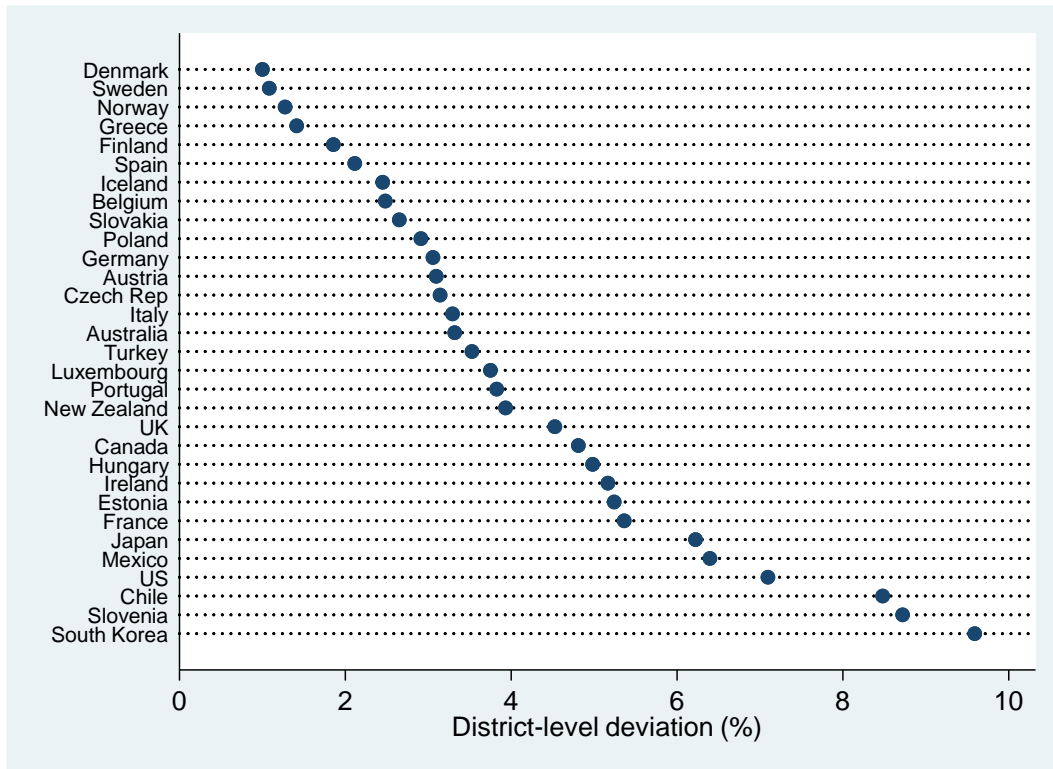
before and after 2008 and (ii) the change in the district vote share of the national incumbent party between the same two elections. If the difference is 0, the national and district swings are equal. This means that the party system is perfectly nationalized in dynamic terms. The greater the difference, the more different the national and district swings, 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



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). The most recent

(and sophisticated) measures are 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).

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 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.

We have chosen a simple measure of dynamic nationalization: the Pearson correlation of the district vote across the two elections (Converse, 1969). The higher (lower) the correlation, the more (less) nationalized the party system is. The correlation captures 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.<sup>5</sup> 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.<sup>6</sup> The Pearson correlations of the district vote across the two elections before and after the economic crisis in our sample of countries are shown in Figure 2.

---

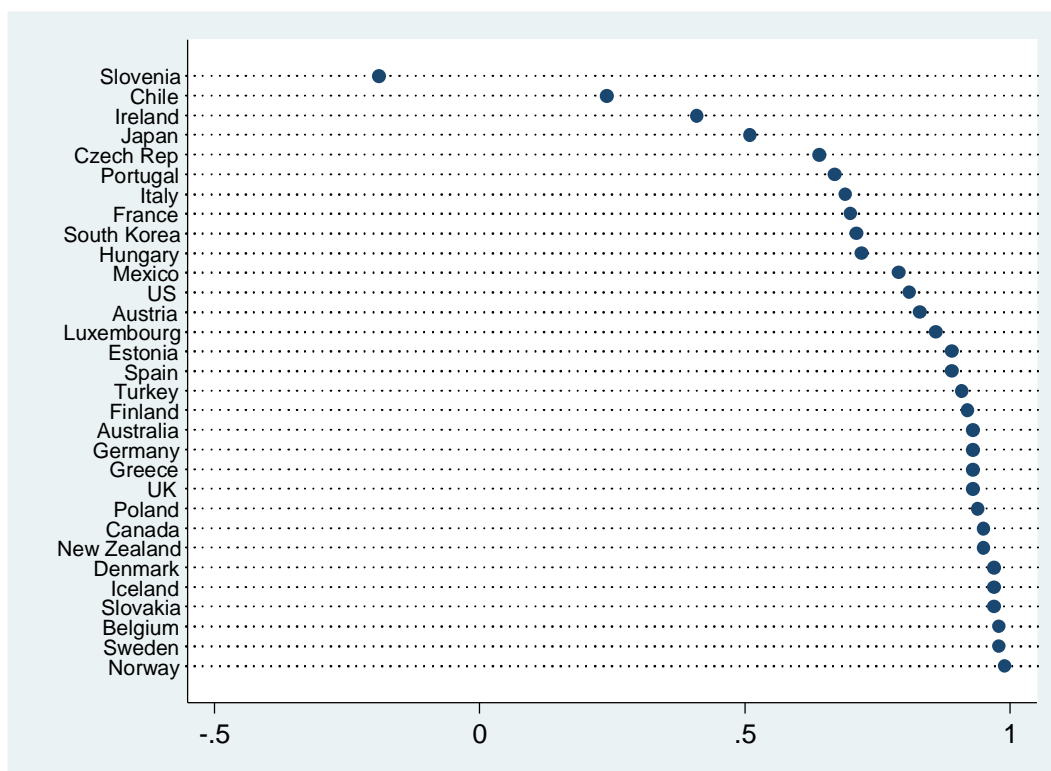
<sup>5</sup> When using the Pearson correlation coefficient, the assumption of normality is violated in some countries in our sample. For instance, in Luxembourg, Iceland or Slovenia the number of districts (i.e., observations) is 4, 6 and 8, respectively. We have run our models using the Kendall's tau-a correlation coefficient, a nonparametric alternative to the Pearson correlation coefficient. The results are very similar. This is not surprising, as the correlation between the two measures is 0.97.

<sup>6</sup> When comparing the Pearson correlation coefficient with the few available indicators of nationalization using a different method, the results are remarkably similar for the countries included in both samples (see Morgenstern et al., 2009).

The Kendall's tau-a correlation coefficient between our measures of dynamic nationalization at the district-level (the average district deviation) and at the national-level (the Pearson correlation coefficient) in the sample of 31 countries is 0.53, statistically significant at the 0.01 level.

Figure 2:

Dynamic nationalization at the national level using the Pearson correlation of the district vote



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)<sup>7</sup>; finally, we

<sup>7</sup> 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



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.<sup>8</sup> Luxembourg and UK are the two extremes.

- *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  $i$  ( $i = 1 \dots N$ ) 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.<sup>9</sup>

- *Economic variables*: The size of economic crisis is captured with  $\Delta GDP$ , 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.<sup>10</sup> The variable goes from -10.52 in Ireland in to +15.44 in Slovakia. Additionally, we include a dummy variable for *Eurozone countries* in order to capture a similar impact of the economic crisis.

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

---

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.

<sup>8</sup> 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.

<sup>9</sup> 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.

<sup>10</sup> 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.

Table 1: Descriptive statistics

Variable	District-level					National-level				
	Obs	Mean	Std. Dev.	Min	Max	Obs	Mean	Std. Dev.	Min	Max
<b>District-level deviation</b>	3,796	5.17	5.56	0	59.25	-	-	-	-	-
<b>Correlation</b>	-	-	-	-	-	31	0.79	0.26	-0.19	0.99
<b>RAI</b>	3,796	18.83	9.15	0	36.99	31	13.79	10.79	0	36.99
<b>Self-rule</b>	3,796	15.29	5.82	0	24.99	31	11.22	7.41	0	24.99
<b>Shared-rule</b>	3,796	3.62	4.14	0	12.63	31	2.57	4.19	0	12.63
<b>Federalism</b>	3,796	0.39	0.49	0	1	31	0.23	0.43	0	1
<b>Regime</b>	3,796	1.69	0.86	1	3	31	1.52	0.72	1	3
<b>ΔGDP</b>	3,796	0.22	5.13	-10.52	15.44	31	0.02	6.61	-10.52	15.44
<b>Fragmentation</b>	3,796	0.20	0.18	0	0.64	31	0.21	0.18	0	0.64
<b>(log) # Districts</b>	3,796	5.52	0.94	1.39	6.47	31	3.93	1.41	1.39	6.47
<b>Eurozone countries</b>	3,796	0.28	0.45	0	1	31	0.65	0.49	0	1

## Results

The empirical analysis proceeds in two steps. The first step showing that the national swing is lower in decentralized countries, and the second step examining the extent to which the uniformity of electoral swings in the district vote within countries is affected by the degree of decentralization of political and economic power.

In our sample of 31 OECD countries, the average (absolute) national swing for incumbent parties is smaller in the seven federal countries (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. In Table 2 we test whether the national electoral swing (in absolute values) is greater in federal countries than in unitary countries. We control for the electoral system following Rowe (2015) (the more viable parties there are, the stronger the economic vote) and the difference in the GDP per capita between the pre and post-crisis elections (electoral change increases with economic decline). As can be seen, the swing is almost 5 points lower in federal countries than in unitary ones and the variable is statistically significant at the 0.05 percent level.

Table 2: The determinants of electoral swings

	Model
<b>Dep. Variable: National electoral swing</b>	1
<b>Federalism</b>	-4.859** (2.279)
<b>Regime (ref.Majoritarian)</b>	
<b>PR</b>	0.332 (2.421)
<b>Mixed</b>	2.090 (3.226)
<b>ΔGDP</b>	-0.511** (0.216)
<b>Constant</b>	8.767*** (2.001)
<b>N</b>	31
<b>R<sup>2</sup></b>	0.250

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

When explaining the determinants of dynamic nationalization, we show first the results of the district-level analysis (Table 3). 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 authority exercised by a regional government in the country (third model) and federalism (fourth model) are statistically significant (at the 0.01 percent levels, while the Regional Authority Index (first model) and the authority exercised by a regional government over those who live in the region (model 2) are not. These results strongly support our argument that the effect of decentralization on dynamic nationalization is driven by the influence of regional incumbent over the central government. Finally, the 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 3: The determinants of district-level dynamic nationalization in hard times

Dep. Variable: District-level deviation	Models			
	1	2	3	4
<b>RAI</b>	-0.044 (0.033)			
<b>Self-rule</b>		-0.019 (0.063)		
<b>Shared-rule</b>			-0.139*** (0.049)	
<b>Federalism</b>				-1.302*** (0.445)
<b>Regime (ref. Parliamentary)</b>				
<b>Semi-presidential</b>	0.373 (0.702)	0.784 (0.698)	-0.172 (0.690)	-0.318 (0.550)
<b>Presidential</b>	3.179*** (0.645)	3.061*** (0.654)	3.239*** (0.580)	3.417*** (0.552)
<b>ΔGDP</b>	0.024 (0.049)	0.021 (0.049)	0.033 (0.047)	0.020 (0.043)
<b>Fragmentation</b>	-0.981 (1.872)	-1.752 (2.012)	-0.587 (1.599)	0.255 (1.736)
<b>(log) # Districts</b>	0.664** (0.260)	0.556* (0.284)	0.588** (0.190)	0.604*** (0.213)
<b>Eurozone countries</b>	-0.430 (0.726)	-0.931 (0.875)	-0.211 (0.601)	-0.636 (0.488)

<b>Constant</b>	1.748 (1.137)	2.078 (1.201)	1.785* (0.988)	1.520 (1.108)
<b>N</b>	3,796	3,796	3,796	3,796
<b># of clusters</b>	31	31	31	31
<b>R<sup>2</sup></b>	0.085	0.084	0.088	0.088

Estimation is by OLS. Standard errors are in parentheses.

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01 (two-tailed).

The results of our national-level estimates are displayed in Table 4. There is a clear outlier, Slovenia, which has been dropped.<sup>11</sup> The four variables capturing the degree of decentralization of power have again the expected (positive) effect in the models. 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 0.1 percent level. 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, *Shared-rule* is statistically significant at the 0.05 percent level. When using the dummy variable identifying federal countries in the fourth model, the variable is statistically significant at the 0.05 percent level. Apart from decentralization, the only statistically significant variable (at the 0.1 percent level) is the dummy for presidential regimes.

Finally, in models 5 and 6 we explicitly test the mechanism behind the impact of decentralization, namely that the national swing and then its district variation is lower in decentralized countries. If this is true, when adding the (absolute) national swing, the degree of decentralization should not significantly affect dynamic nationalization. This is exactly what we observe when running again our two models with the highest fit (models 3 and 4) with this additional control. When adding the national swing to the models, the coefficients on *Shared-rule* and *Federalism* are reduced to statistically insignificant values, while the *National swing* negatively affects dynamic nationalization. In other

<sup>11</sup> 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 -4.71 while all the residuals for the remaining observations do not exceed  $\pm 1.79$ .

words, the greater the national electoral change, the less uniform the electoral swings in the district vote.

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

Dep. variable: Correlation	Models					
	1	2	3	4	5	6
<b>RAI</b>	0.006*					
	(0.003)					
<b>Self-rule</b>		0.008				
		(0.006)				
<b>Shared-rule</b>			0.013**		0.011	
			(0.006)		(0.006)	
<b>Federalism</b>				0.137**		0.071
				(0.058)		(0.065)
<b>Regime (ref. Parliamentary)</b>						
<b>Semi-presidential</b>	0.033	-0.035	0.014	-0.022	0.035	0.010
	(0.089)	(0.091)	(0.085)	(0.083)	(0.069)	(0.067)
<b>Presidential</b>	-0.252*	-0.244*	-0.270*	-0.289*	-0.271**	-0.279**
	(0.135)	(0.133)	(0.144)	(0.144)	(0.125)	(0.129)
<b>ΔGDP</b>	0.003	0.002	0.003	0.004	-0.003	-0.003
	(0.006)	(0.006)	(0.006)	(0.006)	(0.005)	(0.005)
<b>Fragmentation</b>	0.245	0.281	0.212	0.141	0.074	0.071
	(0.173)	(0.180)	(0.156)	(0.163)	(0.152)	(0.167)
<b>(log) # Districts</b>	-0.022	-0.021	-0.011	-0.014	0.002	0.005
	(0.029)	(0.031)	(0.025)	(0.024)	(0.023)	(0.024)
<b>Eurozone countries</b>	-0.111	-0.104	-0.101	-0.068	-0.068	-0.041
	(0.078)	(0.079)	(0.070)	(0.063)	(0.056)	(0.053)
<b>National swing</b>					-0.014***	-0.014***
					(0.003)	(0.003)
<b>Constant</b>	0.846***	0.826***	0.862***	0.888***	0.934***	0.928***
	(0.127)	(0.131)	(0.122)	(0.119)	(0.087)	(0.092)
<b>N</b>	30	30	30	30	30	30

$R^2$	0.334	0.296	0.328	0.335	0.570	0.547
-------	-------	-------	-------	-------	-------	-------

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

### Individual-level analysis

In the individual-level analysis, we examine the mechanism that may account for the positive effect of decentralization on dynamic nationalization in the context of an economic recession, 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.<sup>12</sup>

In Figure 3 we show which government, the national or the regional, is the most important for individuals in the five regions.<sup>13</sup> 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.

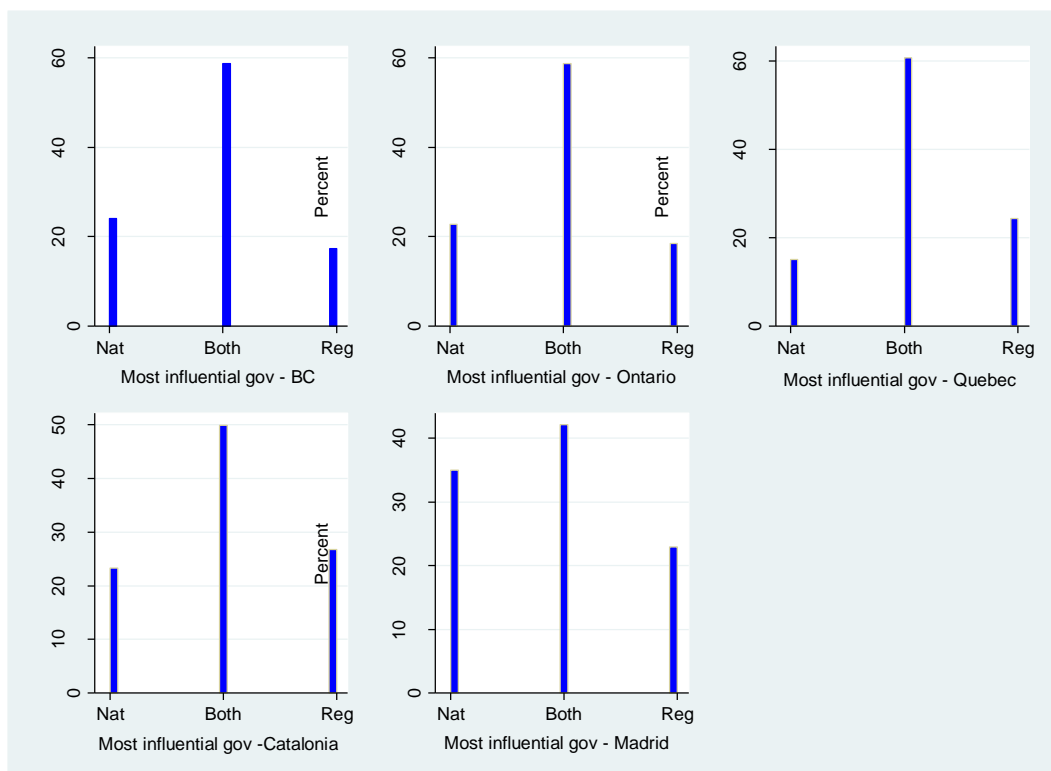
---

<sup>12</sup> 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 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 and 886 in Catalonia in the post-election 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](http://www.electoraldemocracy.com)

<sup>13</sup> 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 national incumbents are less accountable for poor economic outcomes than in centralized countries. At the individual level, most of the swing that occurs between the election that precedes the recession and the following election pertains to voters who supported the party that formed the government after the first election and who punished that party in the second election. Our hypothesis is simply that those who are dissatisfied with the performance of the national government will be more reluctant to switch their vote (and support another party) in the upcoming national election 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.

In line with the aggregated empirical analysis, the dependent variable is a categorical variable coded 0 if the respondent voted for the national incumbent in the two consecutive elections, the Conservative Party in Canada and the Socialist Party in Spain; 1 if the respondent voted for the national incumbent in the current election but for another party in the previous election; and 2 if the respondent voted for an opposition party in the current election, but for the national incumbent in the previous election. In other words, we have three groups of voters: voters who are loyal to the incumbent (58 percent of the sample), swing voters who support the national incumbent in the current election (the 10 percent of the sample), and swing voters who support an opposition party in the current election (the 32 percent of the sample). Given that the dependent variable is categorical, multinomial logistic regressions have been run. The reference category is voters who are loyal to the incumbent (value 0).

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: satisfaction with the *performance* of the national government over the last 12 months, coded 1 if for those who are not satisfied and 0 for those who are satisfied; *attachment* to the region on a scale ranging from 0 (not attached at all) to 10 (very strongly attached); and regional dummies.

Table 5: The determinants of voting for the incumbent in Canada and Spain

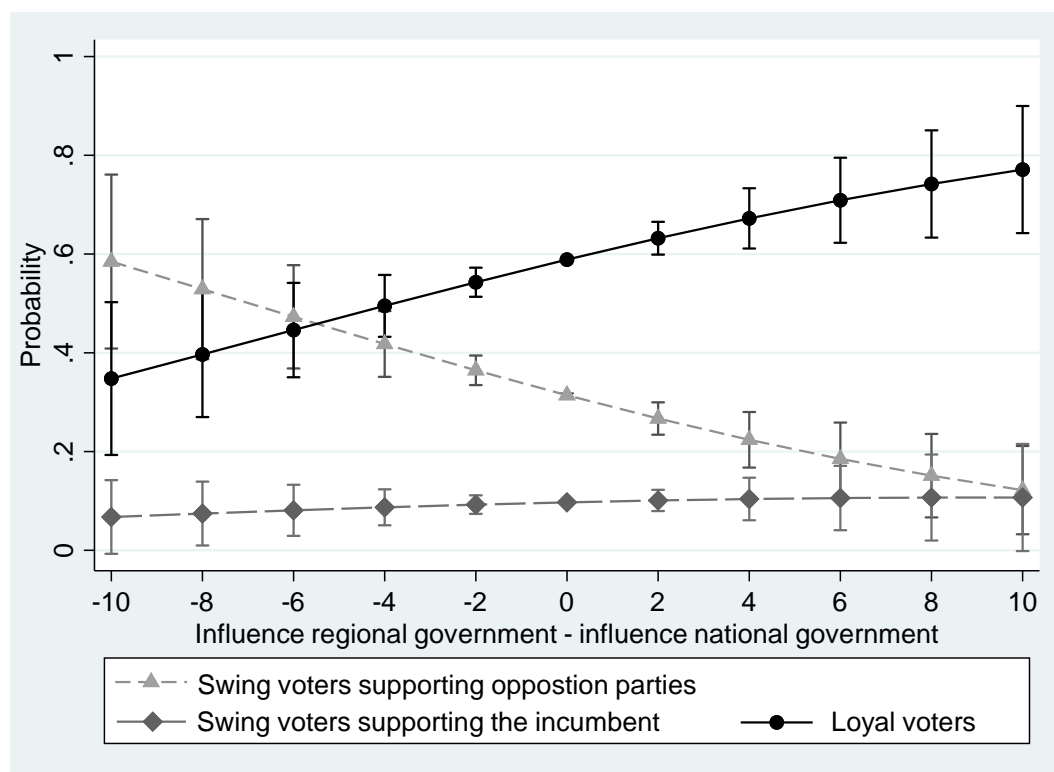
	Swing voter supporting an opposition party vs loyal to the incumbent	Swing voter supporting the incumbent vs loyal to the incumbent
<b>Responsibility (regional)</b>	-0.146*** (0.048)	-0.028 (0.063)
<b>Not satisfied with performance</b>	2.541*** (0.272)	1.284** (0.160)
<b>Attachment to the region</b>	0.043 (0.065)	-0.002 (0.027)
<b>Region (ref. Catalonia)</b>		
<b>Madrid</b>	-0.648*** (0.017)	-0.471*** (0.005)
<b>Quebec</b>	1.316*** (0.219)	1.872*** (0.136)
<b>Ontario</b>	0.324** (0.149)	0.822*** (0.101)
<b>British Columbia</b>	0.714*** (0.121)	0.643*** (0.101)
<b>Constant</b>	-2.622*** (0.756)	-2.969 (0.280)
<b>N</b>		1,528
<b># of clusters</b>		5
<b>Pseudo R<sup>2</sup></b>		0.133

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

The results indicate that *Responsibility* has a negative (and statistically significant at the 0.01 percent level) impact on switching to opposition parties and no effect on switching to government. The less influential the policies of the regional government are

for the respondents' well-being, the lower the probability of being loyal to 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 when all the remaining independent variables are set at their mean values is shown in Figure 4. As can be seen, the more influential the policies of the regional government are, the greater the probability of being loyal to the incumbent, while the probability of deserting the incumbent declines.<sup>14</sup>

Figure 4: The effect of the perceived of national and regional policies on the probability of voting for the incumbent in Canada and Spain



## CONCLUSION

<sup>14</sup> When running the model separately for those who are not satisfied with the performance of the national incumbent, on the one hand, and those who are satisfied with it, on the other, the variable *Responsibility* is only statistically significant for the former (at the 0.05 percent level when the dependent variable is *Swing voter supporting the incumbent vs swing voter supporting an opposition party* and at the 0.01 percent level when it is *Loyal to the incumbent vs swing voter supporting an opposition party*).

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, contrary to what we may intuitively believe, decentralization leads to higher, not lower, dynamic nationalization. The electoral swing away from the incumbent government that we observe at the time of the recession is in fact more, not less, homogeneous in more decentralized countries. This counterintuitive finding is due to the fact that the overall national swing away from the incumbent is reduced when the country is decentralized, since the incumbent government is less likely to be deemed responsible for the recession. Because the national swing against the incumbent government is weaker variations around that swing are therefore weaker, with the result that the swing is more homogeneous.

More specifically, we have presented an original argument accounting for the counterintuitive positive effect of decentralization on dynamic nationalization, at least when there is a recession. The greater the degree of political and economic decentralization, the more influential regional policies are for individuals' well-being. In the context of the Great recession, this means that supporters of the national incumbent party in the previous election who primarily blame the regional incumbent for worsening economic conditions will be less reluctant to switch their vote (and support an opposition party) in the upcoming national election. As this decision-making process applies to individuals in all districts in decentralized countries, the number of swing voters is systematically lower and electoral swings are more uniform when regions are influential over the central government.

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; Denmark, 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.

## REFERENCES

- Aguilar, Paloma and Ignacio Sánchez-Cuenca. 2008. "Performance or Representation? The Determinants of Voting in Complex Political Contexts". In José María Maravall and Ignacio Sánchez-Cuenca (eds.) *Voters, Institutions and Accountability*, pp. 175-89. Cambridge: Cambridge University Press.
- Alemán, Eduardo and Marisa Kellam. 2008. "The nationalization of electoral change in the Americas". *Electoral Studies* 27: 193-212.
- Alemán, Eduardo and Marisa Kellam. 2017. "The nationalization of presidential elections in the Americas". *Electoral Studies* 47: 125-135.
- Alesina, Alberto, Arnaud Devlesschauwer, William Easterly, Sergio Kurlat and Romain Wacziarg. 2003. "Fractionalisation". *Journal of Economic Growth* 8:155-194.
- Alesina, Alberto and Ekaterina Zhuravskaya. 2011. "Segregation and the quality of government in a cross-section of countries". *American Economic Review* 101: 1872–1911.
- Arulampalam, Wiji, Sugato Dasgupta, Amria Dhillon and Bhaskar Dutta. 2009. "Electoral goals and center-state transfers: a theoretical model and empirical evidence from India". *Journal of Development Economics* 88: 103-119.
- Beck, Nathaniel. 2001. "Time-Series Cross-Section data: What have we learned in the past few years?" *Annual Review of Political Science* 4: 271-293.

- Beck, Nathaniel and Jonathan N. Katz. 2011. "Modeling dynamics in Times-Series-Cross-Section political economy data". *Annual Review of Political Science* 14: 331-352.
- Brancati, Dawn. 2008. "The Origins and Strengths of Regional Parties". *British Journal of Political Science* 38: 135-159.
- Brancati, Dawn. 2009. *Peace by Design: Managing Intrastate Conflict through Decentralization*. New York: Oxford University Press.
- Caldeira, Emilie. 2012. "Does the System of Allocation of Intergovernmental Transfers in Senegal Eliminate Politically Motivated Targeting?" *Journal of African Economies* 21: 167-191.
- Caramani, Daniele and Ken Kollman. 2017. "Symposium in 'The nationalization of electoral politics: Frontiers of research". *Electoral Studies* 47: 51-54.
- Carey, John and Matthew S. Shugart. 1995. "Incentives to Cultivate a Personal Vote: a Rank Ordering of Electoral Formulas". *Electoral Studies* 14: 417-439.
- Case, Anne. 2001. "Election goals and income redistribution: recent evidence from Albania". *European Economic Review* 45: 405-423
- Castells, Antoni and Albert Solé-Ollé. 2005. "The regional allocation of infrastructure investment: The role of equity, efficiency and political factors". *European Economic Review* 49: 1165-1205.
- Claggett, William, William Flanigan and Nancy Zingale. 1984. "Nationalization of the American Electorate". *American Political Science Review* 78: 77-91.
- Converse, Philip E. 1969. "Survey research and the decoding of patterns in ecological data". In Mattei Dogan and Stein Rokkan (eds.). *Quantitative Ecological Analysis in the Social Sciences*, pp. 459-486. Cambridge, MA.: MIT Press.
- Cheibub, José Antonio, Jennifer Gandhi and James Raymond Vreeland. 2010. "Democracy and Dictatorship Revisited". *Public Choice* 143: 67-101.
- Chhibber, Pradeep and Ken Kollman. 1998. "Party Aggregation and the Number of Parties in India and the United States". *American Political Science Review* 92: 329-342.
- Cox, Gary W. 1997. *Making Votes Count: Strategic Coordination in the World's Electoral Systems*. New York: Cambridge University Press.
- Cox, Gary W. 2009. "Swing Voters, Core Voters, and Distribute Politics". In Ian Shapiro, Susan C Stokes, Elisabeth Jean Wood and Alexander S. Kirshner (eds.). *Political Representation*, pp. 342-357. Cambridge, UK; New York: Cambridge University Press.

- Elazar, Daniel. 1987. *Exploring federalism*. Tuscaloosa, Alabama: The University of Alabama Press.
- Golder, Sona N., Ignacio Lago, André Blais, Elisabeth Gidengil and Thomas Gschwend. 2017. *Multi-level Electoral Politics: Going Beyond the Second-Order Election Model*. New York: Oxford University Press.
- Harbers, Imke. 2010. "Decentralisation and the Development of Nationalized Party Systems in New Democracies". *Comparative Political Studies* 43: 606-627.
- Hooghe, Liesbet, Gary Marks and Arjan H. Schakel. 2010. *The Rise of Regional Authority: A Comparative Study of 42 Democracies*. London and New York: Routledge.
- Hooghe, Liesbet, Gary Marks, Arjan H. Schakel, Sandi Chapman Osterkatz, Sara Niedzwiecki and Sarah Shair-Rosenfield. 2016. *Measuring Regional Authority: A Postfunctionalist Theory of Governance, Volume I*. Oxford: Oxford University Press.
- Jones, Mark P. and Scott Mainwaring. 2003. "The nationalization of parties and party systems: An empirical measure and an application to the Americas". *Party Politics* 9: 139-166.
- Lago, Ignacio and Santiago Lago-Peñas. 2016. "An Economic Explanation of the Nationalization of Electoral Politics". *Electoral Studies* 44: 409-418.
- Lublin, David. 2012. "Dispersing Authority or Deepening Divisions? Decentralization and Ethnoregional Party Success". *Journal of Politics* 74: 1079-1093.
- Lublin, David. 2014. *Minority Rules: Electoral Systems, Decentralization, and Ethnoregional Party Success*. Oxford: Oxford University Press.
- Marques, Israel, Eugenia Nazrullaeva and Andrei Yakolev. 2016. "Substituting Distribution for Growth: The Political Logic of intergovernmental Transfers in the Russian Federation". *Economics and Politics* 28: 23-54.
- Morgenstern, Scott, John Polga-Hecimovich and Peter M. Siavelis. 2014. "Seven imperatives for improving the measurement of party nationalization with evidence from Chile". *Electoral Studies* 33:186-199.
- Morgenstern, Scott and Richard F. Potthoff. 2005. "The components of elections: district heterogeneity, district-time effects, and volatility". *Electoral Studies* 24: 17-40.
- Morgenstern, Scott, Stephen M. Swindle and Andrea Castagnola. 2009. "Party Nationalization and Institutions". *The Journal of Politics* 71: 1322-1341.
- Mustillo, Thomas and Yoo Sun Jung. 2016. "Distinguishing territorial structure from electoral adventurism; The distinct sources of static and dynamic nationalization". *Electoral Studies* 44: 341-350.



Nannestad, Peter and Martin Paldam. 1994. "The VP-function: A survey of the literature on vote and popularity functions after 25 years". *Public Choice* 79:213-245.

Nannestad, Peter and Martin Paldam. 1997. "The grievance asymmetry revisited: A micro study of economic voting in Denmark, 1986–1992". *European Journal of Political Economy* 13: 81-99.

Powell G Bingham Jr. and Guy D. Whitten. 1993. "A cross-national analysis of economic voting: taking account of the political context". *American Journal of Political Science* 37: 391-414.

Rowe, Kelly T. 2015. "Making voice count: Economic voting and the number of parties". *Party Politics* 21: 803-812.

Schattschneider, Elmer E. 1960. *The Semisovereign People's: A Realist's View of Democracy in America*. New York: Holt, Rinehart and Winston.

World Bank. 2000. *Entering the 21st Century*. Washington DC: World Bank.