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# **ECONOMIC CRISES AND THE NATIONALIZATION OF POLITICS**

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## **Abstract**

The literature on party system nationalization has yet to provide a better understanding of the impact of short-term factors upon the nationalization of politics. This paper contributes to fill this literature gap by analysing the effect of economic conditions on party system nationalization. Our argument is that economic crises will decrease levels of nationalization by amplifying territorial variation in preferences for redistribution, limiting political parties' capacity to coordinate divergent interests across districts and triggering the emergence of new political forces. Data on 47 countries for the 1960-2011 period confirm this hypothesis and show that lower economic growth during the years prior to the election is associated to a decrease in levels of party system nationalization in the next election. The result is robust to variation in the specification of the econometric model and to the use of different measures of nationalization. Results also show that federal institutions increase the impact of economic conditions on the nationalization of politics, whereas we do not find any moderating effect of electoral system proportionality on the economy.

## 1. Introduction

In the last thirty years, the comparative literature on party systems has travelled a long way in exploring the main components of party competition dynamics. While most of the early studies on party systems focused on the number of parties (Sartori, 1976, Lijphart and Aitkin, 1994, Taagepera and Shugart, 1989), the degree of polarization (Knutsen, 1998, Sani and Sartori, 1983) or the figure level of institutionalization (Harmel and Svåsand, 1993, Mainwaring and Scully, 1995) recent advancements in the area have given attention to the nationalization of electoral politics, meaning the extent to which parties receive similar levels of electoral support throughout the country<sup>1</sup>. The growing literature on party system nationalization has brought significant theoretical and empirical insights into the role of historical processes and institutions in explaining in the origins of party systems and cross-country variation in the levels of nationalization (Caramani, 2004, Morgenstern et al., 2009, Harbers, 2010, Lago-Peñas and Lago-Peñas, 2011, Rodden and Wibbels, 2011, Chhibber and Kollman, 2004, Golosov, 2014). Yet, some issues still call for further attention, particularly the role of short-term factors in explaining changes in levels of nationalization.

In this paper we purport to advance studies in the area by exploring the impact of economic conditions upon upon static/distributional nationalization, i.e. the degree of heterogeneity of party support across electoral districts. By focusing on the role of economic crises, our paper aims to provide a better understanding of the degree of resilience of the nationalization of politics against short-term economic shocks. A large number of studies have shown that economic outcomes, measured both objectively and subjectively, are crucial to understand the electoral fate of incumbent parties (Lewis-Beck, 1990, Duch and Stevenson, 2008, Nadeau et al., 2002, Powell and Whitten, 1993, Nannestad and Paldam, 1994), and the financial economic crisis that broke out in 2008 has spawned various studies on its effects on political competition and party system dynamics (Kriesi, 2014, Bellucci et al., 2012, Lewis-Beck and Nadeau, 2012). However, this paper represents a first attempt to explore its implications upon the nationalization of politics.

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<sup>1</sup> By nationalization we refer to the degree to which party support is homogeneous across electoral districts (defined as static nationalization, see Morgenstern 2009), so high levels of nationalization mean that electoral competition is similar across the country's sub-national units, whereas in a context of low nationalization the pattern of electoral competition varies across subnational units: parties' electoral support concentrates in some sub-national units but is weak elsewhere. A dynamic definition of nationalization focuses on the degree of uniformity in electoral swings across districts. See Schattschneider's (1960) approach, developed in other papers such as Clagget et al. (1984), Kawato (1987), Aleman and Kellam (2008), or Morgenstern et al. (2009).

Our argument is that economic crises reduce the nationalization of the party system. We argue this happens through different mechanisms. First, the asymmetric impact of economic shocks amplifies territorial variation in preferences for redistribution. As a result, political parties lose capacity to aggregate heterogeneous preferences and to reconcile divergent social interests, which makes less likely for them to maintain similar patterns of support across the territory. Second, recessions may result in lower levels of nationalization through the emergence of new political forces, which we expect to have more heterogeneous electoral support across districts. Finally, we also argue that certain institutional contexts can amplify or mediate this effect. In particular, we explore the effect of federal institutions and electoral systems in moderating the relationship between economic growth and party system nationalization.

Using data for 52 countries for the 1960 - 2011 period, our findings indicate that economic downturns in the three to four years prior to the election are associated to a decrease in levels of party system nationalization of around half a standard deviation. In addition, we find a significant effect of federal institutions in moderating the negative impact of economic crises on nationalization and no significant interactive effect of electoral rules.

The paper is organized as follows. Next section provides an overview of the literature and section 3 develops the main argument of the paper. Section 4 presents the data, section 5 discusses the results, and section 6 concludes.

## **2. Party System Nationalization and Economic crises**

Long-term causes driving the nationalization of politics have been mostly explored in relation to the formation and consolidation of party systems. One of the most influential works in the area is Caramani (2004), who showed that structural trends associated to nation-building processes as well as to industrialization made political competition more nationalized. Since the publication of Caramani's influential study, follow-up works on the role of structural factors in nationalization have focused on institutional variables such as electoral rules, the type of executive-legislative relations (presidential vs. parliamentary) or decentralization (Chhibber and Kollman, 2004, Hicken and Stoll, 2011, Morgenstern et al., 2009, Hicken, 2009, Leiras, 2006, Simón, 2013) as well as on other conditions such as economic and ethnic divisions (Selway, 2011, de Miguel Moyer, 2012, Cox and Knoll, 2003).

The study of electoral systems has probably provided the most significant theoretical and empirical insights in explaining heterogeneity in the distribution of party votes across districts (Jones and Mainwaring, 2003, Cox and Knoll, 2003, Cox, 1999, Brancati, 2008, Harbers, 2010, Golosov, 2014, Carey and Shugart, 1995). For instance, Morgenstern et al. (2009) show that the degree of party system nationalization is lower in plurality systems than in proportional ones. In plurality systems there are districts that parties will lose or win anyway, so parties have incentives to target competition in swing constituencies, which may contribute to increase heterogeneity in the distribution of support across districts. Conversely, in PR systems all votes count the same, so parties have incentives to win votes everywhere and therefore develop competition strategies in all districts (Morgenstern et al. 2009: 1327).

Another important area in the study of the causes of nationalization comes from the analysis of decentralization in explaining cross-country and over time variation in party system nationalization. The path-breaking study in this area is the work of Chhibber and Kollman (2004) who argue that elites' incentives to coordinate nationally will depend on how much at stake there is at the national level, so periods of centralization will be followed by higher levels of party aggregation, while periods of decentralization will bring lower levels of party nationalization. However, there is a potential reverse causation in the argument (Brancati, 2006, Lago-Peñas and Lago-Peñas, 2011, Lublin, 2012). Decentralization reforms may decrease nationalization by increasing the number of competing parties. Yet the nature of party competition that results from a more fragmented party system may in turn contribute to reinforce decentralization reforms, as some empirical cases in the literature suggest (Alonso, 2012)<sup>2</sup>.

Certainly, one of the difficulties in theorizing about party system nationalization is to set neat causal relations between nationalization and its potential explanatory variables.

Nationalization can have consequences for, but also reflect, different aspects of political competition, and this may turn some causal explanations into circular arguments. For instance, low nationalization can be associated to voters responding more to local issues

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<sup>2</sup> The argument overlooks the capacity of parties to adapt their electoral strategies and organization to a new distribution of powers between the national and regional arenas, which in turn may prevent party system fragmentation (Hopkin and van Houten, 2009: 131–132). Although Chhibber and Kollman focus on the impact of decentralization in the number of parties, predicting a “disaggregating” effect of decentralization reforms, this impact may be neutralized if parties adapt their organization, message and strategies so as to maintain their electoral position (Hopkin, 2009b: 182).

(Schattschneider, 1960); to legislators having career concerns oriented towards the regional political agenda and institutions (Samuels, 1999) or to parties being more likely to orient their electoral messages toward specific -ethnic or national- groups (Stepan, 2001). However, it is difficult to define the specific causal pathway between these variables and the degree of party system nationalization, as causality could operate in both directions.<sup>3</sup> In sum, any attempt to disentangle the specific causal relation between different aspects of political competition and nationalization may render the argument circular<sup>4</sup>.

In summary, what a review of the literature suggests is that nationalization is associated to specific patterns of electoral competition that have important implications for different aspects of politics<sup>5</sup>. This competition setting into which nationalization is “embedded” acts as a self-reinforcing mechanism of the particular level of nationalization: under a strongly (weakly) nationalized party system voters, legislators and parties will be more oriented towards the “national” (subnational) level, which may help to sustain high (low) levels of nationalization. If nationalization is associated to a more or less “national-friendly” context of political competition, then few changes in levels of nationalization might be expected. This speaks to the issue of nationalization dynamics and its driving forces, a topic that lags theoretically and empirically behind in the burgeoning literature on party system nationalization. As previous works have mostly focused on the impact of long-term factors in the formation and consolidation of party systems, the literature gap is most noticeable in the analysis of short-term factors in accounting for the dynamics of nationalization.

In this paper we purport to fill this theoretical and empirical gap by exploring the effect of economic crises in the nationalization of electoral competition.

### **3. The Argument**

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<sup>3</sup> For instance, subnational issues are likely to be more important in national legislators’ careers when nationalization is low. But legislator’s career concerns at the subnational level may increase the degree of dissimilarity in the distribution of support across constituencies (arguably through heterogeneity in electoral appeals through districts).

<sup>4</sup> If we broaden the meaning of nationalization beyond a narrow operationalization (ie: they party system nationalization score) and consider than nationalization means that voters or legislators are national-oriented, then any attempt to establish a causal relationship turns into a tautology.

<sup>5</sup> Variation in the degree to which parties and party systems are nationalized may have important implications over various critical aspects of politics such as the representation of social groups, the balance of power between legislature and executives or government spending (Crisp et al., 2013, Calvo and Leiras, 2012, Castañeda-Angarita, 2013, Jurado, 2014, Lago-Peñas and Lago-Peñas, 2011, Hicken et al., 2010, Simmons et al., 2011).

In this paper we spouse the argument that economic crises reduce the nationalization of the party system through two mechanisms. For one, recessions may amplify territorial variation in preferences for redistribution by making more difficult for political parties to aggregate territorial preferences. For two, economic crises increase the likelihood that new small and territorially based political parties enter the electoral arena.

The first mechanism (economic downturns amplify territorial variation in preferences for redistribution) is grounded on two assumptions. First, countries' economies develop with certain territorial specialization that correlates with variation in the demand for redistribution and taxes (Beramendi, 2012), so individuals in relatively well-off regions will be less likely to support redistribution than those living in poorer territories (for experimental evidence on this assumption see (Fernández-Albertos et al., 2013)). The second assumption is that the impact of recession on regional economic activity is asymmetric and it results in a deepening of the inter-regional economic gap. Regional economic disparities increase if: i) rich regions benefit from recession or remain unaffected, whereas poor regions are adversely hit or ii) poorer regions decrease more than richer<sup>6</sup>. This assumption can be supported empirically. If we regress economic growth on regional variation of per capita GDP in 17 OECD countries for the 1990-2013 period, we find that there is a negative and significant association between the two variables (see table A.1 in the appendix). So when the economy experiences a downturn, regional disparities tend to increase substantially. We argue that this asymmetric impact of recession upon regional economic activity increases variation in redistributive preferences and, in turn, makes the redistributive conflict more intense.

A more heterogeneous territorial demand for redistribution hampers the capacity of political parties to fulfill their essential function, namely the aggregation of different preferences. The modern conceptualization of representative democracy envisions elections as a peacefully competition between conflicting interests and values (Schumpeter, 1942, Przeworski, 2003), and political parties play an essential role in aggregating divergent interests when competing

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<sup>6</sup> Recession may also have detrimental effects across the board, making wealthier regions, in addition to poorer ones, poorer. This would lead to an increase in support for redistribution across territories and, in turn, to more homogeneous preferences for redistribution. However, according to the OECD data (OECD 2016), recession is more clearly associated to an increase in regional disparity than to a decrease of the inter-regional economic gap. Among the 22 OECD countries in which some regions experienced a decrease in GDP per capita during the 2008-2013 period, in 13 of them the evolution of the economy resulted in an increase in regional disparities (in 8 countries poorer regions decreased more than the richer and in 5 countries the poorer decreased and richer increased); whereas in 9 of them it resulted in convergence (in 6 of them poorer decreased less than the richer and in 3 of them poorer increased and richer decreased).



for power. But the more heterogeneous these preferences are, the more difficult it is for parties to aggregate them into a single electoral platform. With an increasing inter-regional gap around redistribution, parties are forced to face more policy trade-offs and the prioritization of some policies may turn their electoral platforms into less encompassing political movements, also in its territorial dimension. Economic downturns thus make it harder for political parties to reconcile divergent economic preferences and, in turn, to maintain similar patterns of support across the territory by mobilizing distinct issues in different constituencies. As a result, we expect a decline in levels of party system nationalization.

In the second mechanism we claim that recession reduces party system nationalization by (i) decreasing support for incumbents, and (ii) facilitating the emergence of new parties, as voters shift their support from incumbents to alternative forces (and not just opposition forces) which are more likely to have territorialised bases of support.

According to the economic voting literature, the economy matters to the incumbents' electoral fate (Duch and Stevenson, 2008, Lewis-Beck, 1990)<sup>7</sup>, particularly when the economy is performing poorly and the range of issues to which individuals' vote respond narrow down to the economy (Bellucci et al., 2012, Lewis-Beck and Nadeau, 2012, Nadeau et al., 2002). Following this literature, we expect incumbent parties to be punished for the negative economic consequences of economic downturns. Although the links between size of the electoral support and party system nationalization have been barely explored, there is some evidence showing that party decline (growth) is accompanied by lower (higher) territorial fragmentation of parties' electoral support (Jones and Mainwaring, 2003). So we expect the incumbent's electoral decline to reduce party system nationalization<sup>8</sup>. In addition, the impact of economic recession may go well beyond the ousting of power of incumbent parties and challenge the whole party system if disaffected voters do not (only) turn to opposition parties but to new political forces<sup>9</sup>. Actually, as recent economic literature on the 2008 financial crisis shows, voters' resentment to mainstream parties and to established

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<sup>7</sup> See Anderson (2007) and Healy and Malhotra (2013) for a review of this literature.

<sup>8</sup> The net effect of recessions upon party system nationalization will depend on whether incumbent parties' electoral decline and its impact upon nationalization cancels out with higher electoral growth (and nationalization) of the opposition parties.

<sup>9</sup> Otherwise, if no new parties are formed, the net effect of recessions upon party system nationalization will depend on whether incumbent parties' electoral decline and its effect upon nationalization cancels out with higher electoral growth (and nationalization) of vote to opposition parties.

“political elites” did nurture the support for new political forces (Kriesi 2014). As less consolidated or mature political forces tend to have more heterogeneous electoral support across districts (Caramani 2004), their expected electoral success under economic recession will result in lower levels of nationalization.

Thus, our main argument is that bad economic outcomes will reduce party system nationalization. A further question is whether institutions moderate the relationship between both variables. We explore the moderating effect of two institutions: electoral rules and federalism. First, it has been well established in the literature that electoral rules have a significant impact in accounting for variation in levels of nationalization, showing that single-member district plurality systems exhibit lower levels of nationalization relative to proportional ones (Caramani, 2004, Ishiyama and Kennedy, 2001, Bochslers, 2010b, Morgenstern et al., 2009). However, the theorization of how electoral rules may moderate the impact of recessions upon nationalization does not yield conclusive predictions. On the one hand, as stated above, recessions may make it more difficult for parties to attract different types of voters in distinct constituencies through heterogeneous electoral platforms, and these coordination problems may become more acute under SMD due to the higher number of electoral districts. On the other hand, in proportional systems electoral rules may facilitate the emergence of new political forces, which may also contribute to decrease levels of nationalization. In summary, both SMD and proportional systems have characteristics that may intensify the negative impact of recessions upon nationalization so there is no way in which we can hypothesize whether some electoral rules may have a bigger moderating effect than others.

Second, as for the role of federal institutions, the literature has not provided yet conclusive empirical evidence on the relationship between decentralized forms of governance (political or fiscal) and levels of party system nationalization (Lago-Peñas and Lago-Peñas 2011; Morgenstern et al. 2009). Yet unlike electoral rules, predictions regarding the moderating role of federalism in the relationship between economic recessions and party system nationalization are more straightforward. The different mechanisms through which we have hypothesized a negative impact of recessions upon levels of nationalization are more likely to develop under decentralized political structures than under centralized ones. First, the organizational bonds between national and local party leaders are looser under decentralized

settings (Thorlakson, 2009) so the aggregation of divergent preferences (which becomes more difficult as a result of the economic recession) is a more daunting task under decentralized party structures. Second, decentralization gives way to a regionalized frame of party competition in which policy solutions vary according to specific regional conditions (Detterbeck and Jeffery, 2009). Differentiated policy programmes allow party leaders to better adopt their electoral pledges to the heterogeneous demands of regional constituencies and interest groups (Alonso and Gómez, 2010, Swenden and Maddens, 2009). If as a consequence of the economic crisis, preferences across districts become more divergent, the existence of regional political parties may allow for a more intense expression of these differences across the territory, and in turn, contribute to widen the distinctiveness of electoral appeals and preferences across districts.

#### **4. Data, Variables, and Method**

We test the previous argument with a panel data of 52 countries. As we want to account for the effect of economic conditions on the electoral results, our unit of observation is the electoral results after an election cycle. Table A.2 shows all the elections and countries contained in the sample. As it can be seen, time coverage ranges from 1960 to 2011 and it is very unbalanced across countries.

Our dependent variable is the *Party System Nationalization Score (PSNS)* created by Bochsler (2010a). This measure is a transformation of the Gini coefficient on inequalities in distribution of parties' vote shares across electoral districts. We use the standardized and weighted version of this index, whose advantage is that it accounts for the size and the varying number of electoral districts within a country. As a robustness variable, we use Kasuya and Moenius' (2008) *Inflation and Dispersion Score*. This index measures the extent to which party competition in each district is different from party competition at the national aggregate level and the variation across districts of the extent of each districts' contribution to national-level party system inflation. It has the opposite direction to the PSNS. Higher values of the score indicate lower levels of nationalization. Both variables are taken from Kollman et al.'s (2014) database and draw upon legislative elections.

To measure the effect of economic conditions, we use the economic growth rates published by the World Bank Development Indicators (2015). We use several economic growth variables, accounting for different spans of economic conditions. *Election year growth* is the GDP growth rate on the election year (when the election takes place in the first six months of a year, we take the economic growth of the previous year)<sup>10</sup>. *Growth 2 years* is the sum of growth rates on the election year and the previous year. *Growth 3 years* aggregates the growth on the election year and the two previous years. Finally, *Growth 4 years* is the sum of growth rates of the three prior years to the election and on the election year. As a robustness check we create four similar variables using changes in *unemployment* rates. We use the unemployment rates based on national statistics that are published in the World Bank Development Indicators (2015).

To have a more nuanced measurement of the impact of the economy upon the dependent variable, we divide these variables into quintiles. The first quintile represents the 20% of observations with lowest levels of economic growth of the whole sample<sup>11</sup>, while the fifth quintile represents the 20% of observations with highest levels of economic growth. We operationalize economic crises as the observations in the lowest quintile of economic growth. We do this for each of the different economic growth variables to capture non-linear effects and whether the impact of economic growth upon levels of nationalization is different between economic recessions and economic upturns. As an illustration, the mean value of lowest quintile of the *Growth 2 years* variable is a total growth of -0.9% of the GDP over the two years before the election, while the mean value of highest quintile is a growth of 16.94%. For the *Growth 3 years* variable, the mean of lowest quintile is a growth of -0.06% over the three prior years to the elections, while for the highest quintile is 24.16%. In all models, we use the third quintile as reference category<sup>12</sup>.

Our analyses include several control variables. First, we include countries' *population*, measured in its natural logarithm. Larger countries would tend to have lower levels of nationalization as larger populations host more diversity of interests that can become relevant

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<sup>10</sup> We have also operationalized this variable as growth on the whole election year when the election takes place in the first months, and the results do not change.

<sup>11</sup> Most of the countries have at least one observation in the lowest quintile group, so we are reassured that any specific country does not drive the results. We have also jack-knifed the models and the results hold (results not shown).

<sup>12</sup> Results are robust to cutting the economic growth variable in either less (such as quartiles) or more groups.

in an electoral contest. We also control for *GDP* levels. It is expected that economic development leads to higher levels of nationalization (Caramani 2004). We include the variable in its lagged electoral term value (GDP level in the previous election) not to have confounding effects with our economic growth variable. Empirical models also control for electoral system proportionality. Morgenstern et al. (2009) find that single-member-district countries have lower levels of electoral nationalization, so we introduce as a control the average *district magnitude*, measured in its natural logarithm. Finally, we control for *trade* exposure, measured as the sum of exports and imports over the GDP. The rationale is that trade, as economic models acknowledge, tends to have asymmetric effects across the country, being some regions more affected by it than others. The asymmetric impact of trade may result in more heterogeneous interests and, in turn, of voting behavior across districts. We expect more party system regionalization the higher the exposure to trade. All control variables are taken from the World Development Indicators (2015) or Bormann and Golder (2013). Additional control variables that display time-invariant trends are included in the robustness checks.

Finally, as we are interested in the change in party system nationalization over the electoral term, we employ fixed-effects models. We include a first-order autoregressive term to account for serial correlation<sup>13</sup>. As a robustness check, and to avoid any concerns on non-stationarity, we run error correction models, where a lagged dependent variable is included, the dependent variable is explicitly modeled as first-difference, and all independent variables are included both in their first difference and lagged values (accounting for the short-term effects, and long-term effects of the variables).

## 5. Results

Table 1 runs the main econometric model of the paper, testing the effect of economic growth on the PSNS score splitting the economic growth variables into quintiles<sup>14</sup>. Two results are

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<sup>13</sup> Results are robust to the non-inclusion of the autoregressive term.

<sup>14</sup> The control variables deserve also some comment, in particular because their effects hold consistent throughout all the econometric models that are shown below. First, we find an effect of the electoral system on party system nationalization. Elections that take place under more proportional systems, with larger district magnitudes, result in more regionalized party systems. This result goes against Morgenstern et al. (2009) who provide evidence of less nationalized electorates in single-member district systems. Second, we do find a strong effect of the population level on the variation in party system nationalization. Larger countries tend to increase their levels of electoral regionalization. This supports the argument that bigger political communities are more

worth noting. First, models 1.1 through 1.4 show that there is a strong and significant positive impact of economic growth on levels of party system nationalization. However, and more specifically, the effect of GDP growth upon levels of nationalization only operates through the lowest quintile. Put it differently, results in Table 1 suggest that the impact of the economy upon PSNS is not a linear one: it only operates for economic downturns. Compared to medium levels of growth, low economic growth has a significant impact in reducing nationalization. However, when the economy goes well, there does not seem to be any significant impact on the nationalization of politics.

Second, it must be noted that the impact of the economy on the nationalization of politics becomes again more intense when we measure growth over a long period of time before the election. The coefficient is not significant for the election year (model 1.1), or two years prior to the election (model 1.2). An economic downturn is only significant in models 1.3 and 1.4. This finding is consistent with the type of mechanisms we developed in the theoretical section to account for the relationship between economic recessions and party system nationalization. Economic crises moderate the level of nationalization of politics through mechanisms (i.e. changes in preferences for redistribution across territories or the emergence of new political parties, etc) that are more likely to unfold in a gradual way throughout the electoral term. This means that low economic growth just before the election might be not enough to change significantly the nationalization of the party system. A more extensive crisis might be needed to change elites' strategies and voters' patterns across the territory. In terms of the magnitude of the effect, an economic crisis has an average impact on the variation in nationalization of half a standard deviation, which is a sizable impact<sup>15</sup>.

In the next tables we conduct robustness checks for the dependent variable (table 2), the main independent variable (table 3), additional control variables (table 4) and the statistical method (table 5). The first robustness check consists in testing the effect of economic crises using a different dependent variable. In table 4 the dependent variable is Moenius and Kasuya's (2008) *Inflation and Dispersion Score*. Note that for this variable higher values mean lower levels of nationalization (so the expected sign of the coefficients change). As models 2.1

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likely to be more heterogeneous and, therefore, to exhibit lower nationalization scores. Third, the degree to which countries are exposed to trade is negatively associated to party system nationalization, indicating that the impact of the state of the economy in the party system is stronger in more open economies.

<sup>15</sup> The dependent variable –variation in PSNS– has a mean value of -0.0018 and a standard deviation of 0.056.

through 2.4 show, we obtain similar results as with the *PSNS*<sup>16</sup>. For the lowest quintile of economic growth we find a positive and significant impact on the inflation index, which implies a reduction in the level of nationalization. This effect is displayed again only when we account for larger time spans of low growth than the election year<sup>17</sup>.

[TABLE 2 ABOUT HERE]

In the second check, we measure the state of the economy with a variable that captures changes in the unemployment rate. As our hypothesis is about recession, we now predict a negative impact of economics crises upon levels of nationalization when positive changes in the annual rates take place (that is, when levels of unemployment increase). We divide the unemployment rate again into quintiles, so each quintile captures 20% of observations of the distribution of the unemployment rate. Models 3.1 through 3.4 show, despite the low number of observations, that unemployment is associated to lower nationalization scores, but only for the highest positive changes in the rate of unemployment. In model 3.3 the fourth and fifth quintiles of unemployment growth are significant, while in model 3.4 the fourth quintile is significant and the fifth close to significant. Yet data do not support a reverse effect: a decrease in the unemployment rate does not result in an increase in higher levels of nationalization of politics. This finding supports our theoretical argument that it is economic crises more generally (and not just growth) what affects levels of *PSNS*.

[TABLE 3 ABOUT HERE]

In the third robustness check, we include further control variables to avoid any omitted variable bias. In particular, we include the level of ethnic fractionalization<sup>18</sup>, the level of democracy –measured with the Polity index-, and the age of democracy- measured as the number of years that the country has continuously had a score of 8 or more in the Polity index. The rationale is that ethnic diverse countries are expected to have lower levels of party system nationalization (Lublin, 2015) and that nationalized party systems flourish in consolidated and high-quality democracies (Golosov, 2014). However, the ethnic fractionalization and democracy variables display sluggish or time-invariant trends and therefore have not been included in the previous fixed-effects models. Table 4 replicates the

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<sup>16</sup> Correlation between both nationalization scores is -0.619 in the elections contained in the sample.

<sup>17</sup> As for the models with *PSNS* as dependent variable, the economic growth in the five years prior to the election has no significant effect on inflation.

<sup>18</sup> This variable is taken from Selway (2011) and it is a time invariant measure.

previous models with the *Growth 3 years (quintiles)* and *Growth 4 years (quintiles)* variables, including these three additional controls without fixed-effects. We regress the models on the PSNS score, and the inflation score. The results are remarkably robust. The ethnic fractionalization measure is significant, but the effect of the low growth variables remains significant as well at a slightly smaller magnitude.

[TABLE 4 ABOUT HERE]

Finally, we test that the results are not dependent on fixed-effects time-series-cross-sectional model by using an error correction model. In these models, the dependent variable is explicitly modeled as first-difference, and all independent variables are included both in their first difference and lagged values: the former accounting for the short-term effects, and the latter for the long-term effects of the variables. This way, the growth variable will account for the short-term effects of the economy on party system nationalization, while the lagged GDP values will account for the long-term effects. This allows calculating the extent to which periods of economic growth have effects beyond the next election.

The results are shown in Table 5<sup>19</sup>. We run the analyses using both the *PSNS* and the *Inflation Score* as dependent variables. To make tables more readable we create a dummy variable called *economic crisis*, which takes value 1 when the *economic growth* variable is in the lowest quintile and 0 otherwise.

Results show that the impact of economic growth is robust to different estimations of the econometric model. All models exhibit a significant effect of economic growth in the predicted direction (a negative effect on PSNS and a positive effect on the inflation score). In addition, the models show that the effect of the economy is just a short-term effect. The insignificant coefficients of the GDP per capita variables confirm that economic growth just has an impact on the nationalization of the follow-up election. The effects do not display longer over time and it is restricted to the electoral contest following the economic downturn.

[TABLE 5 ABOUT HERE]

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<sup>19</sup> To prove the empirical robustness of the argument of this paper, we have also run alternative estimations (not shown here) with a LDV and no fixed effects, such as random-effects models, and Arellano-Bond models and the results are confirmed as well.



We have shown so far that economic crises reduce levels of party system nationalization. We now move on to explore whether institutions, namely the electoral system, and federal institutions, can amplify or mitigate this effect,

As a measure of federal institutions, we use first the *Regional Authority index (RAI)* which ranges from 0 in countries like Iceland, Estonia and Latvia, to over 36 in Belgium and Germany. We argue that economic conditions will have a stronger negative impact on the nationalization of politics when federal institutions give way to a regionalized frame of party competition, and when organizational bonds between national and regional copartisans are looser. These two mechanisms will be more likely to unfold when federal arrangements provide significant autonomy to regional policy makers. To capture this specific dimension, two other variables measure more specifically the authority exercised by the regional government over those who live in the region (*self-rule*) and the extent to which regional governments are autonomous rather than deconcentrated (*institutional depth*). The *self-rule index* ranges from 0 in similar countries to over 22 in United States, Belgium, and Germany, and the *institutional depth* index ranges from 0 to around 5.5 in Germany and around 5 in Belgium and Italy. All three variables are taken from Hooghe et al. (2008).

To test for the interactive impact of the electoral system we use three conventional variables: the *ln average district magnitude*, the *effective electoral threshold* (Taagepera and Shugart, 1989; Lijphart, 1994) and a *majoritarian* dummy variable. The *ln average district magnitude* measures the average number of seats allocated per district. The larger this number, the more proportional the allocation is and the lower the electoral penalty of non-coordination across districts. The *effective electoral threshold* indicates the average share of votes that a party needs to win to secure parliamentary representation with a probability of at least 50 per cent. It ranges from 0.375 in single member district systems to 0 in proportional systems with one single national district. The *majoritarian* dummy takes value 1 if the country has a Single Member District (SMD) system and 0 otherwise. Note that while *district magnitude* is a measure of electoral proportionality, the *effective electoral threshold* and *majoritarian* are measures of electoral majoritarianism.

To account for the robustness of these measures and to be sure we are capturing the institutional effect isolated from other covariates, we include two further controls to these estimations. For the analyses of the interactive effect of the electoral system and economic growth, we include a control for the effective number of parties at the national level. As low

economic growth might make more likely the emergence of small regionally-based parties, this allows us to measure the interactive impact of electoral system institutions discounting the fact that proportional systems already have more parties. In the analyses of federal institutions, we include a control for the geographic concentration of diversity, using a measure of cross-cuttingness between ethnic groups and geography (*ethno-geographic cross cuttingness*). This measure was developed by Selway (2011) using survey data and it captures the extent to which the distribution of ethnic groups overlaps with geography in a given country. When the cross-cutting index scores low, it means that each ethnic group tends to live in different regions, whereas it scores high if different ethnic groups are distributed in a similar way across the territory.

Table 6 replicates the basic model of the paper introducing the interaction between the federal variables and the *crisis* dummies. We use the *Growth 3 years* and *Growth 4 years* variables. Similar controls of tables 1 to 3 are included, but not reported. Results go in line with our theoretical expectations. First, and most importantly, we do find, as hypothesized, a strong moderating effect of federal institutions in the relationship between economic growth and levels of nationalization. The interaction coefficient in the six models is highly significant. This holds for the three measures of federalism and the two economic crisis variables. This means that periods of low economic growth are more likely to regionalize politics under decentralized political structures than under centralized ones. When there is decentralization, the institutional setting allows for a more intense expression of divergent interests both within political parties and across constituencies. Economic crises will provide incentives to regional elites to adopt electoral strategies that cater to the subnational interests, making more difficult to political parties to have a cohesive national platform and aggregate divergent preferences<sup>20</sup>. Economic downturns under decentralized political structures will result in centripetal pressures within national political parties. The relevance of the vertical structure of power when accounting for the effect of economic crises on party systems is also exposed as the variable *economic crisis* loses its significance, indicating that for very centralized countries an economic downturn has no effect on nationalization. The results are robust to the inclusion of the ethnic-geographic cross-cuttingness, which indicates that our findings are not an artifact of ethnic diversity in the country.

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<sup>20</sup> We also ran these models using the *shared-rule* variable from the same dataset. The interactions are of lower magnitude and significance, indicating that the kind of mechanisms we are capturing are stronger where federalism is designed to provide regional governments with autonomy over policy-making, giving more them incentives to pursue their own regional agendas, which, in turn, fragmentize the party system.

Figure 1 displays this differential effect graphically (using model 6.4). It can be seen that for low levels of decentralization, economic crises do not have any differential impact on party system nationalization. In fact, in completely centralized countries the level of nationalization is expected to be the same regardless of economic conditions. As levels of regional authority increase, nationalization decreases. However, the decrease is substantially sharper if there is an economic crisis. For high levels of decentralization, such as Belgium, an economic downturn operates as a centrifugal force in the party system that reduces the nationalization score to almost 0.7. If there is not an economic crisis over the electoral cycle, the predicted score is around 0.77. This is a very substantial effect of almost a standard deviation of the PSNS in the sample.

[TABLE 6 AND FIGURE 1 ABOUT HERE]

Table 7 replicates these models, but including now the interactions with the electoral systems. We do not find any effect of the electoral system in reducing or amplifying the impact of economic crises. The interaction is not significant across the four models. This confirms that the impact of electoral rules upon nationalization is not univocal. While in majoritarian electoral systems parties might concentrate their electoral efforts in those constituencies where they need to make fewer compromises, in proportional electoral systems regionalization might increase through the emergence of new parties. If something, the interactions in our models are consistent in their sign, pointing out that the latter mechanism might be stronger. This is the argument developed in recent research by Lago-Peñas and Lago Peñas (2016) who claim that the permeability of proportional electoral systems make more likely small regionally-based political parties to emerge in periods of low economic growth. However, our results are far from significant, so we cannot conclude any clear differentiated effect of low economic growth under different types of electoral rules.

[TABLE 7 ABOUT HERE]

## 6. Summary and Concluding Remarks

The literature that explores variation in party system nationalization has provided significant theoretical and empirical insights into the long-term processes that account for the emergence

and consolidation of national party systems. Yet some issues still call for further analysis, particularly a better understanding of the role of short-term factors in explaining variation in the nationalization of politics. This paper contributes to fill this literature gap by analyzing the effect of economic conditions upon party system nationalization across more than fifty countries and almost sixty years of elections.

The basic argument of the paper is that economic recessions will decrease levels of nationalization through different mechanisms, namely an increase in the divergence of preferences across the territory and the emergence of new political forces. The paper also provides some theoretical insights into the role of institutional conditions in moderating the impact of the economy upon levels of nationalization.

Empirical evidence shows that lower economic growth is associated to a decrease in levels of party system nationalization, a result that is robust to variation in the specification of the econometric model and the use of different measures of nationalization. The impact of the economy upon nationalization is strongest for economic conditions measured three to four years prior to the election, which corresponds with the period in which we expect some of the causal mechanisms (changes in electoral competition and individual preferences) to develop. The empirical analysis also shows that federal institutions moderate the relationship between economic conditions and party system nationalization: the negative effect of economic crises upon nationalization is stronger in federal countries than in unitary ones.

There are three ways in which this research could be advanced in the future. First, the paper suggests several theoretical mechanisms through which economic crises may trigger changes in the nationalization of politics, such as the emergence of new political parties or parties' difficulties to keep together a heterogeneous electoral platform during hard times. However, the analysis does not provide evidence on the operation of these mechanisms. A future way to strengthen the theoretical insights of the paper would be to provide a more nuance account of the specific changes in electoral competition and individual preferences that are triggered by economic crises and that may result in lower levels of nationalization.

Second, following upon Morgersten et al.'s (2009) theoretical and empirical distinction between dynamic and static nationalization, further developments of the paper could analyze

whether the impact of economic crises is significantly different across nationalization types. In this paper we have theorized about the impact of economic crises upon static/distributional nationalization, i.e. the degree of heterogeneity of party support across electoral districts. However, future research could expand the theoretical and empirical insights of the paper and analyze the effect of economic crises upon dynamic nationalization, testing whether economic crises weakens political parties' electoral ties across districts or, alternatively, it makes the fate of a party members rise and fall together.

Finally, this paper shows that the impact of the economy upon party system nationalization is not a linear one and only operates for economic crises. When the economy does not perform well, party system regionalization increases, but we do not find evidence of a reverse impact when economic conditions improve. If levels of party system nationalization are more elastic to economic crises than to economic upturns we should find some evidence of a steady increase in general levels of party system regionalization. Certainly, a better understating of variation in levels of party system nationalization over time requires further theoretical and empirical analysis on whether the impact of short-term shocks upon nationalization is eventually overturn by long-term factors.

## Bibliography

- Alemán, E. & Kellam, M. (2008) The nationalization of electoral change in the Americas. *Electoral Studies*, 27, 193-212.
- Alonso, S. (2012) *Challenging the State: Devolution and the Battle for Partisan Credibility: a Comparison of Belgium, Italy, Spain, and the United Kingdom*, Oxford University Press.
- Alonso, S. & Gómez, B. (2010) Partidos nacionales en elecciones regionales: ¿coherencia territorial o programas a la carta? *Revista de Estudios Políticos*, 152.
- Bellucci, P., Lobo, M. C. & Lewis-Beck, M. S. (2012) Economic crisis and elections: The European periphery. *Electoral Studies*, 31, 469-471.
- Beramendi, P. (2012) *The political geography of inequality : regions and redistribution*, New York, Cambridge University Press.
- Bochsler, D. (2010a) Measuring party nationalisation: A new Gini-based indicator that corrects for the number of units. *Electoral Studies*, 29, 155-168.
- Bochsler, D. (2010b) The nationalisation of post-communist party systems. *Europe-Asia Studies*, 62, 807-827.
- Brancati, D. (2006) Decentralization: Fueling the Fire or Dampening the Flames of Ethnic Conflict and Secessionism? *International Organization*, 60, 651-685.
- Brancati, D. (2008) The origins and strengths of regional parties. *British Journal of Political Science*, 38, 135-159.

- Calvo, E. & Leiras, M. (2012) The nationalization of legislative collaboration: Territory, partisanship, and policymaking in Argentina. *Revista Ibero-Americana de Estudos Legislativos*, 2, 2-19.
- Caramani, D. (2004) *The nationalization of politics : the formation of national electorates and party systems in Western Europe*, Cambridge, UK ; New York, Cambridge University Press.
- Carey, J. M. & Shugart, M. S. (1995) Incentives to cultivate a personal vote: A rank ordering of electoral formulas. *Electoral studies*, 14, 417-439.
- Castañeda-Angarita, N. (2013) Party system nationalization, presidential coalitions, and government spending. *Electoral Studies*, 32, 783-794.
- Claggett, W., Flanigan, W. & Zingale, N. (1984) Nationalization of the American Electorate. *The American Political Science Review*, 78, 77-91.
- Cox, G. (1999) Electoral rules and electoral coordination. *Annual Review of Political Science*, 2, 145-161.
- Cox, G. & Knoll, J. (2003) Ethnics, fisco and electoral rules: The determinants of party system inflation. *Annual Meeting of the American Political Science Association, Chicago*.
- Crisp, B. F., Olivella, S. & Potter, J. D. (2013) Party-System Nationalization and the Scope of Public Policy The Importance of Cross-District Constituency Similarity. *Comparative Political Studies*, 46, 431-456.
- Chhibber, P. K. & Kollman, K. (2004) *The formation of national party systems : federalism and party competition in Canada, Great Britain, India, and the United States*, Princeton, N.J. ; Oxford, Princeton University Press.
- de Miguel Moyer, C. G. (2012) *The Price of Territorial Politics: Economic Geography, Political Institutions and Party Systems*. The University of Michigan.
- Detterbeck, K. & Jeffery, C. (2009) Rediscovering the Region: Territorial Politics and Party Organizations in Germany. IN Swenden, W. & Maddens, B. (Eds.) *Territorial Party Politics in Western Europe*. Basingstoke; New York, Palgrave Macmillan.
- Duch, R. M. & Stevenson, R. T. (2008) *The economic vote : how political and economic institutions condition election results*, Cambridge, Cambridge University Press.
- Fernández-Albertos, J., Kuo, A. & Balcells, L. (2013) Economic Crisis, Globalization, and Partisan Bias: Evidence from Spain. *International Studies Quarterly*, 57, 804-816.
- Golosov, G. V. (2014) Factors of party system nationalization. *International Political Science Review*, 0192512114552864.
- Harbers, I. (2010) Decentralization and the Development of Nationalized Party Systems in New Democracies: Evidence From Latin America. *Comparative Political Studies*, 43, 606-627.
- Harmel, R. & Svåsand, L. (1993) Party leadership and party institutionalisation: Three phases of development. *West European Politics*, 16, 67-88.
- Hicken, A. (2009) *Building party systems in developing democracies*, Cambridge University Press.
- Hicken, A., Kollman, K. & Simmons, J. W. (2010) Party system nationalization and the provision of public health services. *UCLA Comparative Politics Workshop Paper. Los Angeles, CA: University of California*.
- Hicken, A. & Stoll, H. (2011) Presidents and parties: How presidential elections shape coordination in legislative elections. *Comparative Political Studies*, 44, 854-883.
- Ishiyama, J. T. & Kennedy, R. (2001) Superpresidentialism and political party development in Russia, Ukraine, Armenia and Kyrgyzstan. *Europe-Asia Studies*, 53, 1177-1191.
- Jones, M. P. & Mainwaring, S. (2003) The nationalization of parties and party systems an empirical measure and an application to the Americas. *Party politics*, 9, 139-166.

- Jurado, I. (2014) Party system nationalisation and social spending. *European Journal of Political Research*, 53, 288-307.
- Kasuya, Y. & Moenius, J. (2008) The nationalization of party systems: Conceptual issues and alternative district-focused measures. *Electoral Studies*, 27, 126-135.
- Kawato, S. (1987) Nationalization and Partisan Realignment in Congressional Elections. *The American Political Science Review*, 81, 1235-1250.
- Knutsen, O. (1998) The Strength of the Partisan Component of Left-Right Identity: A Comparative Longitudinal Study of Left-Right Party Polarization in Eight West European Countries. *Party Politics*, 4, 5-31.
- Kriesi, H. (2014) The populist challenge. *West European Politics*, 37, 361-378.
- Lago-Peñas, I. & Lago-Peñas, S. (2011) Decentralization and the Nationalization of Party Systems. *Environment and Planning C: Government and Policy* 29, 244-263.
- Leiras, M. (2006) Parties, provinces and electoral coordination: a study on the determinants of party and party system aggregation in Argentina, 1983-2005. University of Notre Dame.
- Lewis-Beck, M. S. (1990) *Economics and elections: The major Western democracies*, University of Michigan Press.
- Lewis-Beck, M. S. & Nadeau, R. (2012) PIGS or not? Economic voting in Southern Europe. *Electoral Studies*, 31, 472-477.
- Lijphart, A. & Aitkin, D. (1994) *Electoral systems and party systems : a study of twenty-seven democracies, 1945-1990*, Oxford ; New York, Oxford University Press.
- Lublin, D. (2012) Dispersing authority or deepening divisions? Decentralization and ethnoregional party success. *The Journal of Politics*, 74, 1079-1093.
- Lublin, D. (2015) Electoral Systems, Ethnic Heterogeneity and Party System Fragmentation. *British Journal of Political Science*, 1-17.
- Mainwaring, S. & Scully, T. (1995) *Building democratic institutions : party systems in Latin America*, Stanford, Calif., Stanford University Press.
- Morgenstern, S., Swindle, S. M. & Castagnola, A. (2009) Party Nationalization and Institutions. *The Journal of Politics*, 71, 1322-1341.
- Nadeau, R., Niemi, R. G. & Yoshinaka, A. (2002) A cross-national analysis of economic voting: taking account of the political context across time and nations. *Electoral Studies*, 21, 403-423.
- Nannestad, P. & Paldam, M. (1994) The VP-function: A survey of the literature on vote and popularity functions after 25 years. *Public Choice*, 79, 213-245.
- Powell, B. G., Jr. & Whitten, G. D. (1993) A Cross - National Analysis of Economic Voting: Taking Account of the Political Context. *American Journal of Political Science*, 37, 391-414.
- Przeworski, A. (2003) Minimalist conception of democracy: a defense. IN Dahl, R. A. (Ed.) *The democracy sourcebook*. Mit Press.
- Rodden, J. & Wibbels, E. (2011) Dual accountability and the nationalization of party competition: Evidence from four federations. *Party Politics*, 17, 629-653.
- Samuels, D. J. (1999) Incentives to Cultivate a Party Vote in Candidate-centric Electoral Systems Evidence from Brazil. *Comparative Political Studies*, 32, 487-518.
- Sani, G. & Sartori, G. (1983) Polarization, Fragmentation and Competition in Western Democracies. IN Daalder, H. & Mair, P. (Eds.) *Western European party systems : continuity & change*. Beverly Hills ; Eastbourne, Sage.
- Sartori, G. (1976) *Parties and party systems : a framework for analysis*, Cambridge Eng. ; New York, Cambridge University Press.
- Schattschneider, E. E. (1960) *The semisovereign people : a realist's view of democracy in America*, New York, Holt, Rinehart and Winston.

- Schumpeter, J. (1942) Creative destruction. *Capitalism, socialism and democracy*.
- Selway, J. S. (2011) The measurement of cross-cutting cleavages and other multidimensional cleavage structures. *Political Analysis*, 19 48-65.
- Simmons, J., Hicken, A., Kollman, K. & Nooruddin, I. (2011) Dividing the spoils: Party nationalization, credibility, and foreign direct investment. College Park: University of Maryland, International Relations Workshop.
- Simón, P. (2013) The combined impact of decentralisation and personalism on the nationalisation of party systems. *Political Studies*, 61, 24-44.
- Stepan, A. (2001) Toward a new comparative politics of federalism,(multi) nationalism, and democracy: Beyond rikerian federalism. *Arguing comparative politics*, 315-61.
- Swenden, W. & Maddens, B. (2009) *Territorial party politics in Western Europe*, Basingstoke ; New York, Palgrave Macmillan.
- Taagepera, R. & Shugart, M. S. (1989) *Seats and votes : the effects and determinants of electoral systems*, New Haven, Yale University Press.
- Thorlakson, L. (2009) Patterns of Party Integration, Influence and Autonomy in Seven Federations. *Party Politics*, 15, 157-177.
- World Development Indicators (2015), The World Bank.



**Table 1: Economic growth and party system nationalization.  
Time-Series-Cross Sectional Estimations with fixed-effects, AR(1)**

VARIABLES	Dependent Variable: PSNS			
	(1.1) Growth Election Year	(1.2) Growth 2 Years	(1.3) Growth 3 Years	(1.4) Growth 4 Years
Ln District Magnitude	0.023** [0.012]	0.023** [0.012]	0.023** [0.012]	0.024** [0.011]
Ln population	0.037** [0.018]	0.035** [0.018]	0.029 [0.018]	0.033* [0.018]
Trade	-0.001*** [0.000]	-0.001*** [0.000]	-0.001*** [0.000]	-0.001*** [0.000]
Lagged GDPpc	0.007 [0.031]	0.010 [0.031]	0.022 [0.032]	0.014 [0.032]
Growth 1st quintile	-0.006 [0.008]	-0.011 [0.008]	-0.019** [0.008]	-0.023*** [0.008]
Growth 2nd quintile	0.001 [0.008]	0.003 [0.007]	-0.002 [0.007]	0.003 [0.007]
Growth 4th quintile	0.006 [0.008]	0.002 [0.008]	0.006 [0.008]	0.007 [0.008]
Growth 5th quintile	-0.002 [0.009]	-0.000 [0.010]	0.000 [0.009]	-0.004 [0.011]
Observations	326	326	325	321
Number of countries	47	47	47	47

Constant not shown. Standard errors in brackets, \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table 2: Economic growth and inflation score.**  
**Time-Series-Cross Sectional Estimations with fixed-effects, AR(1)**

VARIABLES	Dependent Variable: Inflation and Dispersion Score			
	(2.1) Growth Election Year	(2.2) Growth 2 Years	(2.3) Growth 3 Years	(2.4) Growth 4 Years
Ln District Magnitude	-1.283*** [0.248]	-1.276*** [0.249]	-1.294*** [0.247]	-1.279*** [0.248]
Ln population	0.518 [0.358]	0.519 [0.365]	0.558 [0.365]	0.631* [0.360]
Trade	0.021*** [0.008]	0.021*** [0.008]	0.022*** [0.007]	0.022*** [0.007]
Lagged GDPpc	-0.034 [0.522]	-0.042 [0.531]	-0.112 [0.533]	-0.161 [0.529]
Growth 1st quintile	0.192 [0.167]	0.193 [0.174]	0.343** [0.168]	0.533*** [0.180]
Growth 2nd quintile	-0.028 [0.166]	-0.113 [0.162]	0.031 [0.160]	0.157 [0.161]
Growth 4th quintile	-0.062 [0.181]	-0.003 [0.175]	-0.180 [0.174]	0.033 [0.185]
Growth 5th quintile	0.335 [0.203]	0.228 [0.217]	0.270 [0.208]	0.299 [0.249]
Observations	324	324	323	319
Number of countries	48	48	48	48

Constant not shown. Standard errors in brackets, \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table 3: Unemployment and party system nationalization.**  
**Time-Series-Cross Sectional Estimations with fixed-effects, AR(1)**

VARIABLES	Dependent Variable: PSNS			
	(3.1) Growth Unemploy Election Year	(3.2) Growth Unemploy 2 Years	(3.3) Growth Unemploy 3 Years	(3.4) Growth Unemploy 4 Years
Ln District Magnitude	0.038* [0.022]	0.038* [0.022]	0.032 [0.022]	0.033 [0.023]
Ln population	0.030 [0.040]	0.029 [0.040]	0.018 [0.043]	0.014 [0.043]
Trade	-0.002*** [0.001]	-0.002*** [0.001]	-0.002*** [0.001]	-0.002*** [0.001]
Lagged GDPpc	-0.014 [0.076]	-0.014 [0.076]	-0.002 [0.078]	0.005 [0.078]
Lagged Unemployment	0.000 [0.002]	0.000 [0.002]	0.001 [0.002]	0.001 [0.002]
Growth Unemploy 1st quintile	-0.017 [0.019]	-0.007 [0.019]	-0.026 [0.021]	-0.011 [0.026]
Growth Unemploy 2nd quintile	-0.011 [0.016]	-0.001 [0.016]	-0.015 [0.016]	-0.016 [0.019]
Growth Unemploy 4th quintile	-0.027 [0.017]	-0.022 [0.016]	-0.035** [0.015]	-0.034** [0.016]
Growth Unemploy 5th quintile	-0.018 [0.023]	-0.023 [0.023]	-0.039* [0.023]	-0.025 [0.025]
Observations	163	163	161	160
Number of countries	38	38	38	38

Constant not shown. Standard errors in brackets. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table 4: Economic growth and party system nationalization.**  
**Time-Series-Cross Sectional Estimations with random effects, AR(1)**

VARIABLES	DV: PSNS		DV: Inflation Score	
	(4.1) Growth 3 years	(4.2) Growth 4 years	(4.3) Growth 3 Years	(4.4) Growth 4 Years
Ln District Magnitude	0.006 [0.008]	0.006 [0.008]	-0.848*** [0.169]	-0.841*** [0.168]
Ln population	-0.025*** [0.009]	-0.027*** [0.009]	0.781*** [0.186]	0.819*** [0.184]
Trade	-0.001*** [0.000]	-0.001*** [0.000]	0.012** [0.006]	0.013** [0.006]
Polity Index	0.004 [0.004]	0.003 [0.004]	-0.018 [0.093]	-0.014 [0.094]
Duration	0.000 [0.000]	0.000 [0.000]	-0.000 [0.006]	-0.001 [0.006]
Ethnic fractionalisation	-0.193*** [0.063]	-0.191*** [0.062]	2.154* [1.266]	2.133* [1.254]
Lagged GDP pc	0.001 [0.008]	0.001 [0.007]	-0.165 [0.154]	-0.162 [0.152]
Growth 1st quintile	-0.014* [0.008]	-0.019** [0.008]	0.315* [0.190]	0.533*** [0.200]
Growth 2nd quintile	0.001 [0.007]	0.006 [0.007]	0.009 [0.178]	0.143 [0.182]
Growth 4th quintile	0.002 [0.008]	0.006 [0.008]	-0.013 [0.194]	0.159 [0.201]
Growth 5th quintile	0.004 [0.009]	-0.000 [0.011]	0.205 [0.224]	0.228 [0.263]
Observations	351	347	350	346
Number of countries	46	46	47	47

Constant not shown. Standard errors in brackets, \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table 5: Economic growth and party system nationalization.**  
**Error Correction Models**

VARIABLES	(6.1) Δ PSNS	(6.2) Δ PSNS	(6.3) Δ Inflation	(6.4) Δ Inflation
Lagged Dep. Variable	-0.2284*** [0.037]	-0.2351*** [0.038]	-0.1971*** [0.034]	-0.1967*** [0.034]
Δ District Magnitude	0.0081 [0.009]	0.0084 [0.009]	-1.1852*** [0.210]	-1.1917*** [0.211]
Lagged District Magnitude	0.0020 [0.003]	0.0019 [0.003]	-0.1385** [0.056]	-0.1356** [0.056]
Δ Ln Population	-0.0127 [0.130]	-0.0246 [0.133]	0.3475 [2.666]	0.7475 [2.692]
Lagged Ln Population	-0.0082*** [0.003]	-0.0087*** [0.003]	0.1634*** [0.057]	0.1734*** [0.057]
Δ Trade	-0.0008*** [0.000]	-0.0008*** [0.000]	0.0160** [0.007]	0.0154** [0.007]
Lagged Trade	-0.0004** [0.000]	-0.0004** [0.000]	0.0043 [0.003]	0.0046 [0.003]
Lagged GDP pc	-0.0001 [0.002]	-0.0001 [0.002]	0.0286 [0.042]	0.0332 [0.042]
Crisis 3 years	0.0009** [0.000]		-0.0202** [0.010]	
Crisis 4 years		0.0006* [0.000]		-0.0162** [0.008]
Observations	364	360	358	354
Number of countries	52	52	52	52

Constant not shown. Standard errors in brackets. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table 6: Economic Crisis and Federalism.**  
**Time-Series-Cross Sectional Estimations, AR(1)**

Dependent Variable: PSNS						
VARIABLES	Economic Crisis (3 years)			Economic Crisis (4 years)		
	(6.1)	(6.2)	(6.3)	(6.4)	(6.5)	(6.6)
Crisis	0.008 [0.010]	0.012 [0.011]	0.014 [0.012]	0.010 [0.009]	0.013 [0.010]	0.021* [0.011]
Regional Authority Index (RAI)	-0.002* [0.001]			-0.002* [0.001]		
Self rule		-0.002 [0.001]			-0.001 [0.001]	
Institutional depth			-0.011* [0.006]			-0.009 [0.006]
Crisis * RAI	-0.001*** [0.001]			-0.002*** [0.001]		
Crisis * Self Rule		-0.002*** [0.001]			-0.003*** [0.001]	
Crisis * Inst. Depth			-0.011*** [0.004]			-0.015*** [0.004]
Ethno geographic crosscuttingness	0.223*** [0.057]	0.228*** [0.057]	0.230*** [0.057]	0.225*** [0.057]	0.231*** [0.057]	0.231*** [0.056]
CONTROLS	YES	YES	YES	YES	YES	YES
Observations	321	321	321	321	321	321
Number of countries	42	42	42	42	42	42

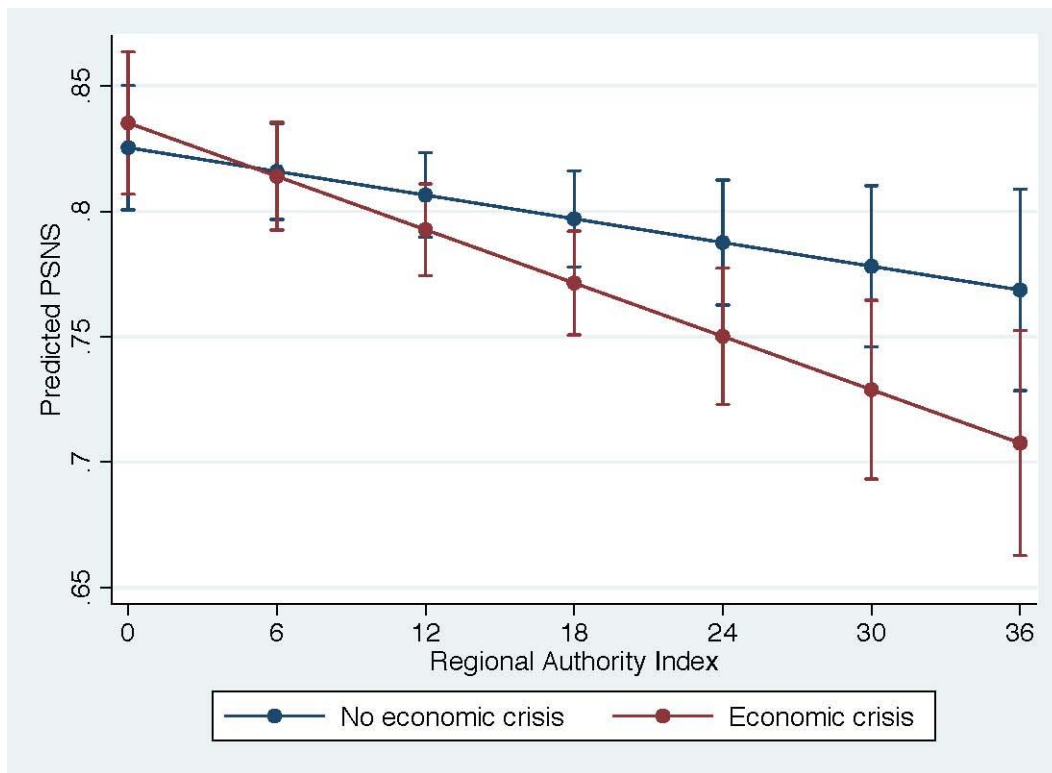
Constant and control variables not shown. Standard errors in brackets\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table 7: Economic Crisis and Electoral System.  
Time-Series-Cross Sectional Estimations, AR(1)**

Dependent Variable: PSNS						
VARIABLES	Economic Crisis (3 years)			Economic Crisis (4 years)		
	(7.1)	(7.2)	(7.3)	(7.4)	(7.5)	(7.6)
Crisis	-0.001 [0.008]	0.002 [0.008]	0.002 [0.006]	-0.005 [0.008]	-0.005 [0.008]	-0.005 [0.006]
Ln District Magnitude	0.009 [0.006]			0.009 [0.006]		
Effect. Elect Threshold		-0.064 [0.052]			-0.065 [0.052]	
Majoritarian			-0.010 [0.016]			-0.011 [0.016]
Crisis*Ln District Magnitude	-0.001 [0.003]			-0.001 [0.003]		
Crisis* Effect. Elect Thresh.		-0.022 [0.036]			-0.014 [0.037]	
Crisis*Majoritarian			-0.009 [0.011]			-0.005 [0.011]
Effective Number of Parties	-0.034*** [0.002]	-0.034*** [0.002]	-0.034*** [0.002]	-0.034*** [0.002]	-0.034*** [0.002]	-0.034*** [0.002]
CONTROLS	379	379	379	379	379	379
Observations	52	52	52	52	52	52
Number of countries	52	52	57	52	52	57

Constant and control variables not shown. Standard errors in brackets\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Figure 1: Effect of economic crises for different levels of federalism. (90% confidence intervals)**





## APPENDIX 1

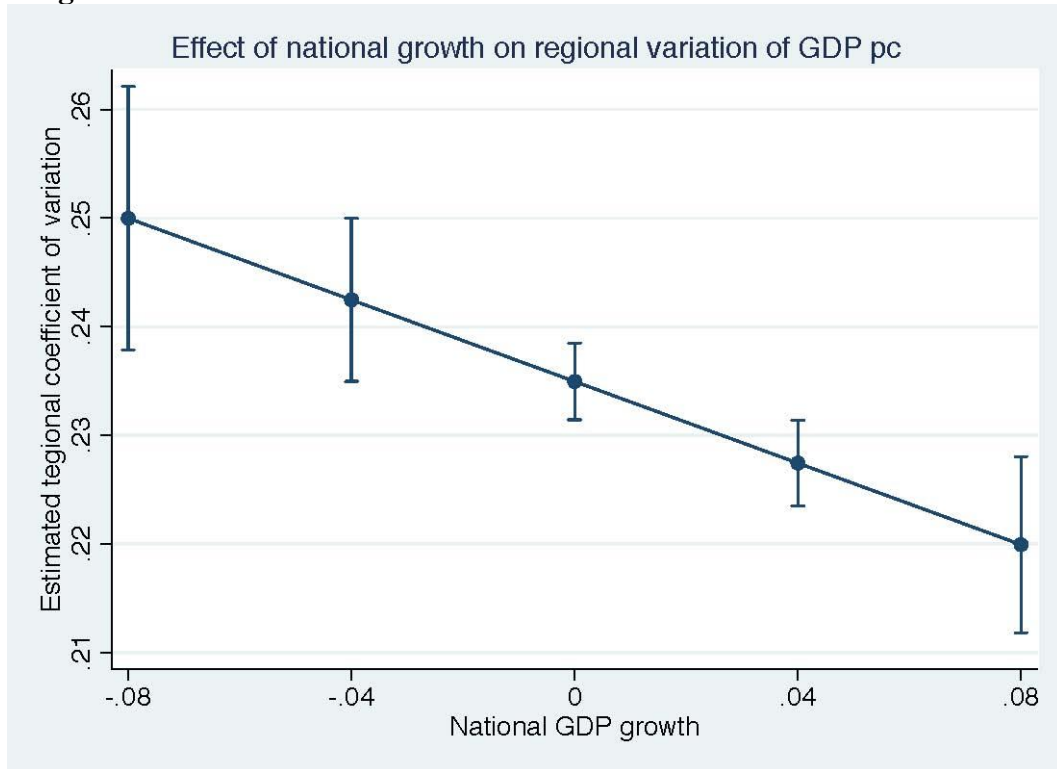
One of the main mechanisms by which we expect economic crises to reduce party system nationalization is by their asymmetric impact on countries' economy. We argue that economic crises increase interregional inequality and this brings about divergence of redistribution preferences. To test our assumption, we take data from the OECD Regional Statistics and measure interregional inequality as the coefficient of variation of regional GDP per capita. We this variable -measured both as the level of variation and the annual percentage variation- on national GDP growth. Table A.1 displays the results. They show that there is a consistently strong and significant negative relation between national economic growth and the variation of GCP per capita across regions. Figure A.1 simulates the results of model A.2, showing the extent to which a shift from a strong recession to a prosperous year implies a significant reduction of the regional GDP divergence.

Table A.1: Effect of national economic growth on regional variation of GDP

	(A.1) DV: Coefficient Variation	(A.2) DV: Coefficient Variation	(A.3) DV: Coefficient Variation	(A.4) DV: $\Delta$ % Coefficient Variation	(A.5) DV: $\Delta$ % Coefficient Variation
VARIABLES	OLS regression	Fixed effects regression	Fixed effects regression + LDV	Fixed effects regression	Fixed effects regression + LDV
National GDP growth	-0.493*** [0.172]	-0.188*** [0.062]	-0.173*** [0.066]	-0.839* [0.451]	-0.806** [0.403]
Observations	302	302	285	285	268
Number of countries	17	17	17	17	17

Standard errors in brackets; \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ . Data cover the period 1990-2013, and include Australia, Austria, Canada, Chile, Czech Republic, France, Germany, Italy, Japan, South Korea, Netherlands, New Zealand, Poland, Spain, Sweden, United Kingdom and United States of America.

**Figure A.1**



**Table A.2: Elections in the main sample**

Albania	2009	Finland	1966-2007	Netherlands	1967-2010
Argentina	1987-2007	France	1981-2002	New Zealand	2005-2011
Australia	1963-1984	Germany	1976-2009	Norway	1965-2009
Austria	1966-2008	Greece	1963-2000	Peru	1990-2011
Barbados	1976-2008	Grenada	1995-1999	Philippines	2001-2010
Belgium	1965-1995	Honduras	1985-2001	Poland	1997-2005
Bolivia	1993-2005	Hungary	1998-2010	Portugal	1979-2011
Brazil	1990-2006	Iceland	1967-1995	Romania	1996-2000
Bulgaria	1997	India	1984-2004	Saint Lucia	1987-2006
Canada	1963-2011	Ireland	1977-2011	South Korea	1988-2008
Colombia	2006	Italy	1968-1996	Spain	1982-2008
Costa Rica	1966-2010	Jamaica	1972-1997	Sri Lanka	2000-2010
Czech Republic	1996-2006	Japan	1963-1993	Sweden	1964-2006
Denmark	1964-2011	Latvia	2006	Switzerland	1987-1995
Dominica	2005	Luxembourg	1968-1994	Thailand	1983-1992
Dominican Republic	1970-2006	Mauritius	1983-2005	Turkey	1965-2011
Estonia	1999-2003	Mexico	2000-2009	United Kingdom	1966-2010
				United States	1962-2010