The Legislative Dynamics of Political Decentralization in Parliamentary Democracies

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Abstract
We investigate how particular configurations of national parliaments affect the dynamics of political decentralization in parliamentary democracies. Recent research has emphasized the impact of structural determinants on levels of decentralization across countries. However, we argue that decentralization processes are endogenous to legislative bargaining by political parties. Our main hypothesis is that, ceteris paribus, the greater the legislative bargaining power of parties with decentralization demands, the more likely decentralization reforms are to occur. For that purpose, we calculate an index of the parliamentary salience of decentralization that reflects the distribution of parties’ preferences for decentralization weighted by their bargaining power. We test our hypotheses with dynamic models for 19 parliamentary democracies using Comparative Manifesto Project data and the Regional Authority Index. We demonstrate that the dynamics of decentralization are crucially shaped by the configuration of national legislatures, although this only seems to affect the self-rule dimension of decentralization rather than shared rule.

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**Introduction**

When and why do decentralization reforms take place in parliamentary democracies? This article provides an answer to this question by focusing on how particular compositions of national parliaments affect decentralization reforms. What we mean by “a particular configuration of the legislative” is the distribution of bargaining power among parties with different preferences for and against decentralization in a given legislature. By decentralization reforms, we refer to legislative changes with respect to how political authority is distributed between the central and regional entities. In other words, we seek to provide an empirical test of the political mechanism that links the configuration of national parliaments with the adoption of decentralization (centralization) reforms that increase (decrease) regional governments’ authority.

Decentralization has been a widespread phenomenon in many countries over recent decades, and not only in developing countries but also in advanced democracies (Treisman, 2007). However, many previous studies have aimed at explaining decentralization levels rather than decentralization dynamics (Beramendi, 2007a; Erk & Koning, 2010; Hooghe & Marks, 2013). Most of these works have emphasized the role of structural factors such as interregional inequality and ethno-linguistic diversity. But decentralization during the past 50 years has been a process whereby the levels of authority of subnational entities have changed over time—rather dramatically in some countries. In fact, around one half of the total variance in regional authority levels in the Organisation for Economic Co-operation and Development (OECD) is temporal variation (Hooghe, Marks, & Schakel, 2010). Unfortunately, structural factors provide limited insight into such dynamic processes. Therefore, it is necessary to focus on particular institutional constraints and political incentives to provide richer explanations for these developments. Our contribution here is to focus on the legislative politics associated with the dynamics of decentralization.

Simply put, our argument is that the composition of the legislative arena in parliamentary democracies is crucial to understanding changes in the distribution of political authority between the center and the regions. We argue that the specific distribution of political parties’ preferences and legislative bargaining power is a key determinant of dynamic changes in decentralization.
considering insights from the legislative bargaining literature (Baron & Diermeier, 2001; Baron & Ferejohn, 1989) and the endogenous decentralization literature (Beramendi, 2012; Filippov, Ordeshook, & Shvetsova, 2004), we contend that decentralization dynamics in parliamentary democracies are endogenous processes subject to legislative bargaining by political parties.

Our contribution highlights the role of a specific institutional arena, namely, the legislative, as the place in which political parties bargain about and modify the distribution of political authority. We argue that the distribution of political parties’ preferences and bargaining power acts as an institutional constraint on the political will to modify how the center and the regions share political authority. That is, we assume that any legislative negotiation over a decentralization reform is subject to the distribution of preferences for decentralization and the bargaining power of the parliamentary parties. This is a priori a rather obvious theoretical proposition that nonetheless has non-trivial empirical implications, namely, the need to understand (and measure) the characteristics of legislative bargaining in parliamentary democracies. By adopting this approach, we are able to offer two main insights: (a) We show that the dynamics of the self-rule dimension of decentralization are crucially explained by legislative bargaining and (b) we provide evidence that the bargaining power of parties in parliaments affects the dynamics of political decentralization regardless of the cabinet type at executive level.

To test our hypotheses, we construct an index of what we refer to as the degree of *parliamentary salience of decentralization* (PSD) that reflects the distribution of parties’ preferences for decentralization, weighted by their legislative bargaining power in each legislature. We collected data for 19 OECD parliamentary democracies over the period 1950 to 2006. To construct this index, we use Comparative Manifesto Project (CMP) data that provide time-varying information about parties’ preferences regarding the decentralization of political authority. For the dependent variable, we take advantage of the Regional Authority Index (RAI) recently compiled by Hooghe et al. (2010), and we therefore conceptualize decentralization as a measure of the distribution of political power between the central and regional authorities.

### Endogenous Decentralization: Theoretical Perspectives

**Structural Determinants**

There is a vast body of literature that uses decentralization as the main explanatory variable behind all sorts of outcomes (Rodden & Wibbels, 2002; Wibbels, 2006). In recent years, however, many scholars have highlighted the
need to endogenize decentralization and reveal its political determinants (Beramendi, 2007a; Wibbels, 2006). This effort is well justified as long as one is interested in arguing for the exogenous effects of decentralization. As Beramendi (2007a) states, “insofar as federal institutions reproduce the underlying tastes of the relevant political coalitions, they do not really matter per se” (p. 773).1 In fact, this debate echoes a question that was first formulated by Riker (1969) regarding whether the territorial organization of a country has independent effects or it is rather an institutional outcome endogenous to the political preferences of the relevant political actors. If the latter is true, then understanding the strategic incentives and institutional constraints under which the main political actors operate becomes essential.

The literature on endogenous decentralization has tended to focus on structural determinants, specially the empirical contributions (Erk & Koning, 2010; Hooghe, Marks, & Schakel, 2008; Hooghe et al., 2010; Panizza, 1999; Treisman, 2006). Panizza (1999) highlighted the role of four main covariates associated with fiscal decentralization: land area, gross domestic product (GDP) per capita, ethnic fractionalization, and democratic history. Treisman (2006, 2007) underscored the role of economic development, country size, and colonial history but did not find statistical evidence for ethnic diversity and democracy being associated with fiscal decentralization. However, the evidence provided by these studies has often been inconclusive, either because the sample of countries varies from one study to another or due to other methodological issues. And even more importantly, a common concern with these large-N cross-country empirical studies is the lack of attention paid to political incentives and institutional constraints (Rodden, 2004).

According to Hooghe et al. (2008), the political authority of regional governments increased in most OECD countries between 1950 and 2006. Supply-side explanations for this gradual process of political decentralization are the absence of external threats, global integration, pressure from international markets, and, last but not least, a functional logic of devolution that seeks to satisfy preference heterogeneity within countries (Erk & Swenden, 2009). From a different perspective, the works of Bolton and Roland (1997), Alesina and Spolaore (2003), and Beramendi (2007b) put the relation between distributive outcomes, inequality, and political and fiscal decentralization at the center of the analysis. The main insight of this political economy literature is to argue that understanding how territorial distribution of income shapes preferences is fundamental to correctly accounting for the design of federations.

More recently, Erk and Koning (2010) put forward a new structural approach to explain institutional changes that took into account the interaction between the social structure and the political mobilization of interest
groups. They argued that in those heterogeneous countries with territorially concentrated linguistic groups—such as Spain or Belgium—political mobilization along linguistic lines should exert pressure on deepening fiscal decentralization. Conversely, in homogeneous federations without such political pressures, the tendency should be toward fiscal and institutional centralization. The approach by Erk and Koning (2010) is appealing, but it lacks a discussion of the institutional channels through which the demands of mobilized interest groups will be more or less successful. Even if it is true that structural factors are the main determinants of long-term institutional equilibriums, a study of the strategic incentives and institutional constraints is needed to account for the dynamics of decentralization.

Therefore, structural explanations of endogenous decentralization seem to be ill-equipped for providing an explanation that accounts for when and why decentralization reforms occur. Too often, structural determinants have been assumed to work in a political vacuum when in fact decentralization is fundamentally a political outcome. Instead, this article conceives the dynamic process of decentralization in a parliamentary democracy as being endogenous to legislative bargaining by political parties.

The Role of Political Parties and Legislative Politics

As said, we argue that it is necessary to bring politics into the study of endogenous decentralization processes and go beyond structural explanations. In that sense, our approach is more related to the literature on the evolution of decentralization and party systems (Brancati, 2008; Chhibber & Kollman, 2004; Riker, 1964; Swenden & Maddens, 2009). This literature, however, is in general ambiguous with respect to the direction of causality linking party systems and decentralization. On one hand, Chhibber and Kollman (2004) argued that it is the institutional structure of the state that drives the degree of party system nationalization. One of their main contributions was that regional parties become more powerful as the degree of policy authority they wield at the subnational level grows. Similarly, Brancati (2008) showed that the strength of regional parties increases with political decentralization.

On the other hand, and more in line with the argument presented here, Riker (1964) claimed that it is the structure of political parties that drives decentralization. Likewise, Filippov et al. (2004) argued that the stability of a federal contract is a function of a political conflict between political elites. They claimed that the strategic incentives of electorally motivated political parties are the main source of stability in a given federation. If the structure of the party system is horizontally and vertically integrated, institutions will
be endogenously self-enforcing, whereas if electoral competition becomes fragmented, territorial conflicts will emerge that will end up disrupting the core constitutional rules. Thus, the structure of the party system and electoral competition is the mechanism that ultimately links a particular society’s composition with changes in institutional outcomes. Interestingly, recent studies such as Beramendi (2012) have analyzed the relationship between the characteristics of the party system, the implementation of fiscal policies, and the decentralization of redistribution.

However, none of the studies on party systems and decentralization have focused on the specific institutional arenas in which political parties actually bargain to modify the distribution of political and fiscal authority at the regional level. That is why most of these works provide a political mechanism for why decentralization is higher in some countries than in others but not a good explanation about when those outcomes are likely to be implemented. In fact, studies such as Caramani (2004) and Chhibber and Kollman (2004) undertake broad comparative historical approaches that focus on long-term trends in the evolution of party systems, but at the cost of a more detailed analysis of the strategic incentives of political parties. Alternatively, Filippov et al. (2004) focus on parties’ strategic incentives but not on the actual institutional constraints that condition the ability of political parties to alter the rules of the game.

In this article, we argue that our understanding of when and why decentralization reforms are implemented can be improved by focusing on the distribution of parties’ seats and bargaining power in a particular legislature. The literature on the political economy of decentralization has made extensive use of electoral competition models that assume unitary executives. However, in parliamentary democracies, governments do often reflect the preferences of more than one party (Baron & Diermeier, 2001). This is because the confidence of a legislative majority is needed to sustain the executive in place. Therefore, policy outcomes like decentralization are the result of legislative bargaining among disciplined parties that form a legislative majority. In other words, the actual composition of the legislative becomes a key variable in understanding why and when bills are passed.

Very much in line with this argument, Rodden and Wilkinson (2004) argued that the shift from an era of majoritarian dominance by the Congress party toward a new scenario of coalition politics implied a change in the patterns of distributive politics in India. They offered empirical evidence according to which a legislative bargaining model is helpful to understand the patterns of fiscal transfers in India during the post-1996 period. More recently, Dragu and Rodden (2010) analyzed the role of legislative bargaining in explaining levels of interregional redistribution across federations. They
presented a model in which representatives form minimal winning coalitions and decide over redistributive outcomes. However, the model they built is not appropriate for parliamentary democracies, where political parties are the main agenda-setters and act in a disciplined manner.

**Our Contribution and Empirical Implications**

As mentioned, legislative bargaining has received surprisingly little attention in the study of the political determinants of decentralization. Given that decentralization is first and foremost a political outcome, one would expect legislative politics to play a relevant role in explaining the dynamics of decentralization. Beyond the importance of vertical bargaining between national and subnational elites that the previous research has emphasized, we argue that political bargaining over decentralization also takes place at the national level itself—namely, in national parliaments. At the end of the day, it is within legislatures that political measures are decided upon. And this is particularly the case in parliamentary democracies.

We know that legislatures matter for policy outcomes. The seminal article of Baron and Ferejohn (1989) provided one of the first formal theoretical studies of bargaining within legislatures. One of the general implications of theirs and other works is that the specific distribution of parties’ preferences and power in parliament make a dramatic difference to understanding political outcomes such as government formation in the first place (Axelrod, 1970). When one party alone obtains the electoral votes necessary to reach an absolute majority of seats, the most likely formation is a single-party majority government where the party will be able to push policies toward their ideal point. By contrast, if no party beats the 50% seat-share threshold, then a coalition or a single-party minority cabinet has to be formed. That of course will influence the policies implemented depending on the preferences and power of each bargaining party.

The causal mechanism we defend, however, is one in which the configuration of parliaments is the key independent variable. Obviously, the executive is the institution in charge of implementing policies, but in parliamentary democracies, governments’ policy making and survival is inextricably linked to the confidence of the legislative. Therefore, it is the composition of the legislature that determines government formation and, above all, how a particular government will operate and which policies will be allowed to pass.

The key institution where political actors will eventually decide upon policies is, hence, the parliament. And decentralization policy is no exception. For instance, imagine one scenario in which a two-party coalition cabinet has formed between a pro-centralization and a pro-decentralization party. If this
coalition was “surplus,” in the sense that the latter was unnecessary to guarantee the government’s investiture, we would predict that the prospects for decentralization would be the same as if a pro-centralization single-party cabinet had formed. If, instead, that party had not obtained the absolute majority of seats, we would predict that the legislative outcome would be the result of a bargaining process between the two parties. The key factor is thus the legislative configuration—more than the executive’s—and that applies regardless of the type of cabinet that is formed.

From this parliamentary approach, we should expect a parliament that more intensely “prefers” decentralization to be more likely to pass legislative reforms giving more power to regional entities. Second, everything else being the same, we expect the strength of pro-(de)centralization parties to negotiate policies—namely, their legislative bargaining power—to be crucial to understanding the dynamics of political decentralization. Even small changes in the distribution of forces within the legislature can dramatically affect the negotiation position of parties, which could greatly alter the prospects of decentralization reforms. This is why we argue that parties’ bargaining power is the key variable determining the salience of political decentralization present in a given parliament.

Thus, the initial set of hypotheses to be tested in this article is the following:

**Hypothesis 1 (Legislative Bargaining Effect):** An increase in the PSD weighted by the legislative bargaining power of parties should make increases in the decentralization of political powers from central to regional authorities more likely.

**Hypothesis 2 (Legislative Bargaining Versus Alternative Measures):** The measure of PSD weighted by the legislative bargaining power should outperform the absolute and the seat-share-weighted measures in explaining the dynamics of political decentralization processes.

Two further implications follow from our argument. On one hand, political decentralization has multiple dimensions:

[A] regional government may exercise authority in its own regional jurisdiction or it may do so in the country as a whole. This is the distinction between self-rule and shared rule, coined by Daniel Elazar (1987) and used widely in the study of federalism, decentralization, and subnational authority (Braun, 2000; Page & Goldsmith, 1987; Rodden, 2004; Watts, 1999) . . . Self-rule depends on the independence of a regional government from central domination and the scope of regional decision making . . . Shared rule depends on the capacity of a regional government to shape central decision making. (Marks, Hooghe, & Schakel, 2008a, pp. 114-115)
We expect legislative bargaining among political parties to affect primarily the dynamics of self-rule rather than shared rule. The reason is that most political parties that demand decentralization reforms are frequently motivated by the willingness to increase the political and fiscal powers of their regional government (where they are usually most powerful). Moreover, the shared rule dimension of political decentralization seems to be more “sticky” and resistant to change in many advanced parliamentary democracies (Hooghe et al., 2010). This is not surprising because the levels of shared rule are usually contingent on constitutional arrangements and other institutional provisions. Hence, the third hypothesis of this study is:

**Hypothesis 3 (Legislative Bargaining and the Dimensions of Political Decentralization):** An increase in the PSD is expected to induce greater increases in levels of “self-rule” than in levels of “shared rule.”

On the other hand, if what truly matters is the legislative configuration, we expect that the majority or minority status of the cabinet should not matter with regard to the effect of PSD. As an illustration of this point, we could imagine a pro-decentralization party that obtained an absolute majority of parliamentary seats in elections. Most likely, a single-party majority cabinet would form, and decentralization reforms would be implemented. But regardless of the cabinet, the preferences of that particular party would characterize the overall PSD as a parliamentary absolute majority implies having 100% of the total bargaining power. However, if that same party formed a minority cabinet, the prospects for decentralization might be poorer—not because of the new status of the cabinet, but because the preferences of the other parties in parliament might now matter. In this scenario, the percentages of bargaining power would be distributed differently among the parties, and that would immediately be reflected in our PSD measure (explained below).

Hence, the status of the cabinet should not have any added explanatory power on the dynamics of political decentralization once the parties’ preferences for decentralization are weighted by their bargaining power. If legislative bargaining is the causal mechanism at work, we expect no significant differences between majority and minority cabinets. That defines the final hypothesis:

**Hypothesis 4 (Legislative Bargaining Under Different Cabinets):** An increase in the PSD is expected to cause an increase in political decentralization regardless of the majority or minority status of the cabinet.
In sum, in this article, we argue that knowing the specific configuration of the parliament, we will be better able to understand why and when decentralization reforms are adopted. Notwithstanding all the structural determinants that have been said to explain decentralization outcomes—that is, keeping these factors constant—we expect legislative bargaining at the national level to account for a substantial part of unexplained variation in decentralization processes, especially with regard to the dynamics of “self-rule.”

Data and Variables

For the empirical analyses, we focus on 19 OECD parliamentary democracies over the time period 1950 to 2006. By narrowing down our sample of countries and using cross-section time-series data we are able to test our hypotheses for a coherent set of countries and avoid the common criticisms that can be found in the previous empirical literature (Rodden, 2004). Specifically, we overcome the problems associated with large-N cross-country studies by exploiting only within-country variation for a relatively reduced number of countries for which we have well-defined theoretical expectations. The 19 countries under study are Australia, Austria, Belgium, Canada, Denmark, Germany, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Norway, Spain, Sweden, Switzerland, and the United Kingdom.

We gathered our data from various sources. On one hand, we use the “RAI” by Hooghe et al. (2010) as our dependent variable (although we disaggregate its two main components in some analyses). On the other hand, we collected data from the CMP (Budge et al. 2001) to construct our main independent variable of interest, the PSD. Other sources were used for the control variables.

Dependent Variable: Political Decentralization

As our argument is essentially political, namely, focusing on legislative bargaining as a main political determinant of decentralization, we need to choose the measure of decentralization that best fits the specific purposes of our investigation (Stegarescu, 2004). We are interested in a codification of decentralization that distinguishes the political power of central versus regional governments and at the same time qualifies the size and scope of regional authority. The former is crucial because our theoretical expectation is that parties with strong preferences for decentralization will bargain for an alteration of the status quo in the distribution of power between the center and the regions. Also, we are interested in disentangling the nature of
decentralization reforms. In sum, we believe that the data recently collected by Hooghe et al. (2010) constitutes the best index currently available for our purposes.

Hooghe et al. (2010) developed an index that measured regional authority in 42 developed democracies for the period 1950 to 2006. The “RAI” is an additive index of a variety of indicators that codify the extent to which regional authorities enjoy political power. Specifically, they define a regional government as “a coherent territorial entity situated between local and national levels with a capacity for authoritative decision making” (Hooghe et al., 2010, p. 4). Following Elazar (1987), Hooghe et al. (2010) conceive regional authority as two main scales that add up into a single index. On one hand, “self-rule” codifies the extent to which regional governments can make autonomous decisions over the citizens living in the region. On the other hand, “shared rule” measures the extent to which regional governments coexercise authority with central governments in the country as a whole. Each of these two main dimensions is at the same time the result of an addition of several indicators that describe various institutional arrangements. Hence, one of the advantages of the RAI is the possibility to distinguish self-rule from shared rule when studying regional authority. In line with our third hypothesis, we will empirically test whether the configuration of the legislative affects these two dimensions differently.

The RAI sums self-rule and shared rule scores, and ranges in a continuous scale from 1 to 24. To illustrate the behavior of RAI, Spain is an interesting country as it has experienced numerous decentralization reforms over the period 1978 to 2006. Spain scored 10 points on the RAI scale in 1978 but had reached 22.1 by 1997. Looking at the RAI components, the main source behind this change was a dramatic increase in the self-rule of the Spanish Autonomous Communities, which climbed from 8.0 to 19.1 points during this period. The RAI also increased significantly in many other countries in the sample. In Italy, it grew from 8.5 to 22.7 between 1950 and 2006; in Belgium, it rose from 14 points to 28.1 over the same period, whereas in Ireland, it ascended from 0 to 6. The majority of these increases resulted from gradual decentralization reforms and most primarily affected the self-rule dimension of the RAI.

It is also worth mentioning that the RAI behaves very coherently compared with other decentralization measures widely used in the literature. Schakel (2008) undertakes validity checks and concludes that “a comparison of the RAI with seven decentralization indices in the literature shows a great amount of agreement” (p. 161). And more importantly, one of the main advantages of the RAI compared with previous measures of decentralization is that it focuses on regional governments’ political authority and completely
excludes local governments. Given that we are interested in how legislative bargaining affects the distribution of political authority between the center and the regions, the RAI is an appropriate measure of decentralization.

The Main Independent Variable: PSD

As mentioned above, we aim to test whether the specific configuration of legislatures has any effect on the timing and extent of political decentralization reforms in a given country. Because decentralization reforms are mainly legislative outcomes, we argue that the preferences and bargaining strength of parties in the legislature should be important factors in understanding the passage of these kinds of laws, in addition to the more traditional structural determinants. To address this hypothesis empirically, we first need to have a measure of how salient the issue of decentralization is in any given legislature.

To achieve this objective, we drew on the CMP data (Budge et al., 2001) and picked the variables per301 and per302, which code parties’ claims regarding decentralization in several party documents. The former refers to the proportion of party manifestoes’ policy statements (i.e., quasi sentences) that contain positive views about decentralizing the political structure of the country, whereas the latter accounts for the opposite (namely, negative views over decentralization). Following Laver and Budge (1992), we simply subtract per302 from per301, which gives us the overall position of each party on decentralization. Note that this operationalization is perfectly coherent with the saliency theory of issue competition. The saliency dimension is incorporated into the measure as the variables per301 and per302 are expressed in percentages and therefore capture the relative emphasis that a given party is giving to the issue of decentralization in its manifesto. However, because the observation level of the dependent variable is not the party, we needed to transform this information into a measure of how salient the issue of decentralization was for the particular parliament as a whole. The resulting variables have been three different specifications of the PSD.

First, we simply calculated the absolute (unweighted) average of the decentralization saliencies of the parties represented in parliament that gives the absolute average PSD. Second, we weighted this average by the seat share of each party (seat-share-weighted PSD). It is clear that parliamentary parties do not have the same potential to make their demands successful in legislative terms. This is why it can be misleading to rely on the unweighted measure alone. However, we argue that the legislative negotiation potential of a party is best captured through its bargaining power rather than its mere seat share. This is why we calculated the Banzhaf power indices (Penrose,
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1946) of each party in each parliament’s first chamber (based on seat distribution data in the ParlGov database; Döring & Manow, 2011) and used it as a weight for parties’ decentralization preferences (we then renormalized the weights for the parties for which CMP data are available). The resulting index is our third measure of PSD and our main independent variable: bargaining-power-weighted PSD, whose formula is the following:

\[
\text{Bargaining Power - Weighted PSD}_j = \sum_{i=1}^{n} \frac{b_i}{\sum_{i=1}^{n} b_i} d_i,
\]

where \( b \) reflects the Banzhaf index value of each party \( i \) of the \( n \) parties for which we had data in each legislature \( j \), while \( d \) captures the preference of party \( i \) for or against decentralization (i.e., in CMP terms, per301–per 302).

The above three measures allow us to compare the performance of the latter (which we believe is the one that should better predict changes in the decentralization policy) against the other two to know which is the added value of incorporating political parties’ bargaining power in the analyses (Hypothesis 2).

In general, when applied to our data, the weighted variables present more variability than the unweighted one. This is not surprising because the latter captures, only, changes in political parties’ preferences on the decentralization dimension from election to election. Instead, the weighted measures incorporate political parties’ strength into the picture. Hence, they have two sources of variation, which increase their variability. Interestingly, by keeping the content of political parties’ manifestoes constant across elections, there can be a dramatic change in our bargaining-power-weighted index with a fairly minor change in the seat-share distribution. For instance, a parliament with a pro-centralization party close to an absolute majority, but not achieving it, could take a much higher bargaining-power-weighted PSD value than in exactly the same scenario if that party had reached the 50% threshold (and that, in principle, could just be a matter of a couple of seats). In the latter case, our measure would take exactly the value of the decentralization salience of that party.

Spain again provides an interesting illustration of our main independent variables of interest (Figure 1). Although the three measures follow a similar general trend, the differences between them are also obvious. First, the absolute average is always above the other two, reflecting the presence of numerous regional parties (that want more decentralization) in the different Spanish parliaments. Because in this measure their preferences weigh the same as
those of larger parties, the value of the index is pushed upward. Comparing the two weighted measures, it is fairly clear that the changes in the bargaining power-weighted measure are sharper than in the seat-share one. The segments in which the former is highest coincide with periods where none of the main two statewide parties (Partido Socialista Obrero Español [PSOE] and Partido Popular [PP]) had an absolute majority of seats (1993-1996, 1996-2000, 2004-2008). That makes sense as this is precisely when regional parties had more potential to influence parliamentary negotiations.

**Controls**

As a first control, we include a variable that captures social attitudes toward decentralization. We do this by measuring the preferences for decentralization that the electorate showed in the last election. That is, the level of voting support (vote shares) received by the different partisan (de)centralization demands (as measured through CMP data). The inclusion of the variable *electorate’s preferences for decentralization* is important because it allows us to isolate the effect of our main independent variable (namely, legislative...
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bargaining power for decentralization, which is logically endogenous to election results) from the preferences of the electorate. Obviously, in the empirical analyses, we also include control variables to account for structural determinants of decentralization (Erk & Koning, 2010; Panizza, 1999). These controls are GDP per capita, interregional inequality, ethno-linguistic fractionalization, area, and level of democracy at the country level. The first two are time-varying variables whereas the last four are time-invariant. However, these controls are not incorporated in all the models.

The two time-varying controls are incorporated in some models only. The reason is that we have data for the whole time span for the dependent variable and our main independent variable but not for all these controls. First, we control for regional disparities as previous research has identified a positive association between regional inequalities and the decentralization of redistribution (Beramendi, 2007b; Ezcurra & Pascual, 2008). More specifically, we use data on interregional inequality recently gathered by Lessman (2009). Using data from Cambridge Econometrics, Lessman (2009) develops several measures of interregional disparities. Here, we use the population-weighted coefficient of variation of regional income as our measure of interregional inequality. Because there is no data for five countries and several years, we opted for presenting the full sample models without the controls and a reduced sample when time-varying controls are included.

Regarding the second time-varying control, Panizza (1999) and Treisman (2006) provide evidence showing that economic development is associated with greater fiscal decentralization. To take this effect into account, we include in our analyses the (log of) GDP per capita at constant US$ (year 2000) based on data from the World Development Indicators.

As we shall see in the next section, the most appropriate models given our data exclude cross-country variability, and, therefore, no time-invariant controls can be included. However, for robustness purposes, we run additional models in which their inclusion is possible. Specifically, we incorporate the ethno-linguistic fractionalization measure by Roeder (2001) for the year 1985. Ethnic diversity has been argued to be a structural determinant of fiscal decentralization (Erk & Koning, 2010) and others like Marks, Hooghe, and Schakel (2008b) have documented an “identity effect” according to which individuals “prefer rulers who share their ethno-cultural norms.” We are aware, however, that this measure is rather crude as it does not capture territorial concentration and the strength of regional identities. In addition, we include a measure of the (log of) the area of the country. Many previous studies on the origins of federalism and decentralization have highlighted country size as a structural determinant of decentralization.
(Erk & Swenden, 2009; Panizza, 1999). Marks et al. (2008b) also find a “heteroskedasticity effect” according to which the variance in regional authority is greater in larger countries. The final (almost) time-invariant control is an institutional democracy indicator, which is an additive 11-point scale (0-10) derived from codings of the competitiveness of political participation, the openness and competitiveness of executive recruitment, and constraints on the chief executive (Marshall, Jaggers, & Gurr, 2010). Panizza (1999) provided evidence of a positive association between democracy and fiscal decentralization. Although our sample includes advanced parliamentary democracies only, there are still some differences across countries in the aforementioned indicator. This is why we include it in some of the analyses.

Before turning to the methodology, it bears mentioning that the statistical analyses presented below are run in two differently structured data sets. Some analyses take legislatures as observations. This obviously generated problems in merging the various sources of data. The rule of thumb was to consider that the starting year of a legislature was the year of elections unless they were held after June 30th, in which case the following year was chosen as the legislature’s starting year. The end year followed the same “half-a-year” logic. The variables for which we had data on a country–year basis were averaged through the legislature’s years except for the dependent variable, for which we were interested in the level of political decentralization that the parliament left at its dissolution. However, a first set of analyses were run on a country–year sample, where the legislature-dependent variables (such as those that were CMP-based) were expanded to meet this structure using, again, the “half-a-year” rule of thumb.9

Method: Dynamic Models

Our hypotheses refer to a dynamic political process, and the data we use have a time-series-cross-section (TSCS) structure. Accordingly, we use several dynamic models to estimate dynamic effects and in particular to identify how certain configurations of the legislative make changes in the legislation over political decentralization more or less likely, and in which direction. To do this, we pursued a twofold identification strategy, one for yearly changes and another that explored cross-legislature changes.

Identification Strategy 1 (Yearly)

In the first place, we estimate error correction models (ECMs) as described in the equation below (Davidson et al., 1978). ECMs are useful for two main
purposes. First, ECMs are adequate for stationary and nonstationary data. And second, ECMs are useful to distinguish the dynamics of the effects—immediate versus steady-state impacts—and hence to describe the temporal adjustments of the dependent variable (Beck & Katz, 2011). The coefficients for the lagged variables in levels reflect the persistent effects, whereas the coefficients for the differenced variables capture the transitory effects. Note that the parameter for the lagged dependent variable should be between −1 and 0 to ensure equilibrium properties.

\[
\Delta Y_{i,t} = \alpha + \beta \Delta X_{i,t} + \phi(Y_{i,t-1} - \gamma X_{i,t-1}) + \nu_{i,t},
\]

We estimate two types of ECMs. First, we run standard ECMs using panel-corrected standard errors (PCSE; Beck & Katz, 2011). We include country and year dummies to account for unit effects and unobserved temporal shocks. Second, we include time-invariant controls by using the fixed-effects vector decomposition (FEVD) method developed by Plümper and Troeger (2007). This procedure is helpful as it enables the inclusion of theoretically interesting controls that otherwise could not be included.10

**Identification Strategy 2 (Legislatures)**

Next, we estimate our dynamic models taking legislatures as the units of analysis. The motivation for this is that we expect our mechanism to induce changes in political decentralization depending on the exact configuration of each national legislature. In this case, the data have a legislature-based structure instead of a country–year format. Because we want to estimate the effect of changes in our main independent variable on changes in our political decentralization index, we use first-difference (FD) and Arellano-Bond (AB) estimators. Given that our number of temporal observations is low (ranging from an average of 6.5 to 14.2 legislatures per country depending on the analysis), we make use of FD estimators to eliminate unit effects and reduce bias in the estimations (Keele, 2009).

\[
\Delta Y_{i,t} = \phi \Delta Y_{i,t-1} + \beta \Delta X_{i,t} + \Delta u_{i,t}.
\]

We also estimate AB models, which extend the FD model. Given that the differenced residuals \(\Delta u_{i,t}\) are uncorrelated with all \(Y_{i,t}\) and \(X_{i,t}\) from \(t-2\) to longer lag lengths, we have used the second lag as instrument for \(\Delta Y_{i,t-1}\) in the equation above in our AB estimators. By estimating our models with the AB estimator, we avoid the potential problems caused by the correlation between the covariates and the errors.
Empirical Analyses

Tables 1 and 2 show the estimations of the ECMs for the yearly cross-section data. In line with the expectations derived from the first hypothesis, they show that stronger increases in the PSD positively affect changes in the index of regional authority, both if the analyses are run with or without economic controls. This is only the case, though, when the measure of the main independent variable is weighted by the bargaining power of parties (columns 5 and 6). As expected in Hypothesis 2, that measure outperforms the absolute average and the seat-share-weighted average PSD: Changes in the political decentralization of countries seem to be more closely associated with variations in the bargaining power of parties rather than simply their seat share. In line with our argument, that may suggest that the distribution of negotiation strengths among parties better reflects the political bargaining that might take place over decentralization.

It is also worth mentioning that the impact of PSD seems to be rather immediate. Few or no long-term effects emerge, as suggested by the nonsignificant coefficients of the PSD lags. Changes in the configuration of the parliament, hence, seem to affect decentralization in the short run (especially in the year immediately following elections), with no further influence in the subsequent years.

As regards the structural determinants, it is basically the degree of ethno-linguistic fractionalization of the country that seems to make the passage of decentralization reforms more likely, whereas the other variables do not appear to matter much. Although the influence of the fragmentation of ethnic and linguistic groups had been already highlighted in previous studies, it is important to note that in our case we are trying to explain dynamic changes in (not levels of) decentralization. Hence, it appears that more ethno-linguistic fractionalization is not only associated with higher decentralization but also with a greater likelihood of decentralization reforms.

Table 3 displays the statistical analyses that take legislatures as observations. Given the relatively low number of legislatures per country, we have used FD and AB estimators. Again, we find support for Hypothesis 1 as changes in the degree of decentralization of a country correspond to changes in the salience of decentralization of the parliament. It is true that in Table 3, the seat-share-weighted PSD also reaches conventional levels of statistical significance, but (a) the ratio coefficient-standard error is always higher for the bargaining power-weighted PSD, and (b) in the AB model with economic controls, the latter is statistically significant at a 95% level of confidence, whereas the former is not.
Table 1. ECM Estimates of Changes in Political Decentralization in 19 Parliamentary Democracies, Country–Year Observations.

| Without economic controls | Absolute average PSD* | Seat-share average PSD* | Bargaining power average PSD* |
|---------------------------|------------------------|-------------------------|-------------------------------|
|                           | PCSE                   | FEVD                    | PCSE                          | FEVD                          | PCSE                          | FEVD                          |
|                           | (1)                    | (2)                     | (3)                           | (4)                           | (5)                           | (6)                           |
| RAI (t −1)                | −0.052*** (0.014)      | −0.080*** (0.022)       | −0.051*** (0.014)             | −0.079*** (0.023)             | −0.051*** (0.014)             | −0.079*** (0.022)             |
| PSD (Δ)*                  | −8.551 (5.545)         | −11.271 (7.872)         | 9.828 (9.641)                 | 10.082 (10.281)              | 11.434*** (3.15)              | 12.076*** (4.116)             |
| PSD (t −1)*               | −1.784 (4.071)         | −2.537 (6.774)          | −2.57 (6.302)                 | −2.254 (7.754)               | 2.2 (2.568)                   | 1.507 (3.598)                 |
| Electorates’ preferences for decentralization (Δ) | 6.489 (4.988) | 8.054 (7.018) | −9.529 (9.759) | −10.03 (9.898) | −10.293*** (3.607) | −11.048** (4.814) |
| Electorates’ preferences for decentralization (t −1) | 4.905 (3.526) | 6.591 (5.55) | 5.813 (6.546) | 6.489 (6.95) | 1.248 (2.78) | 2.873 (3.795) |
| Ethno-linguistic fractionalization (t −1) | 1.563*** (0.621) | 1.511*** (0.6) | 1.508*** (0.596) |
| (Log of) area (t −1)     | −0.005 (0.053)         | −0.008 (0.051)          | −0.008 (0.051)                | −0.008 (0.051)                | −0.008 (0.051)                | −0.008 (0.051)                |
| Democracy indicator (t −1) | 0.194 (0.223) | 0.193 (0.221) | 0.21 (0.22) |
| η                         | 1                      | 1                       | 1                             | 1                             | 1                             | 1                             |
| Constant                  | 0.772*** (0.254)       | −1.202 (2.209)          | 0.793*** (0.25)               | −1.175 (2.186)               | 0.781*** (0.252)              | −1.35 (2.188)                 |
| Observations              | 977                    | 692                     | 977                           | 692                           | 973                           | 692                           |
| R²                        | .131                   | .097                    | .131                          | .096                          | .139                          | .106                          |
| Number of countries       | 19                     | 17                      | 19                            | 17                            | 19                            | 17                            |

Note: ECM = error correction models; DV = dependent variable; RAI = Regional Authority Index; PSD = parliamentary salience of decentralization; PCSE = panel-corrected standard errors; FEVD = fixed-effects vector decomposition. Standard errors in parentheses. Country and year dummies included for PCSE models but not displayed. Bold and italics indicate main independent variable(s) of interest. *p < .10. **p < .05. ***p < .01.
Table 2. ECM Estimates of Changes in Political Decentralization in 14 Parliamentary Democracies Including Economic Controls, Country–Year Observations.

| DV: RAI | Absolute average PSD* | | Seat-share average PSD* | | Bargaining power average PSD* |
|---------|------------------------|--------|------------------------|--------|------------------------|
|         | PCSE                  | FEVD   | PCSE                  | FEVD   | PCSE                  | FEVD   |
| With economic controls |                 |                     |                     |                     |                     |
| RAI (t −1) | −0.140*** (0.03)    | −0.174 (0.14) | −0.156*** (0.028) | −0.195 (0.154) | −0.146*** (0.028) | −0.183 (0.129) |
| PSD* (Δ) | −20.310*** (8.344) | −13.386 (2.1294) | 26.457* (15.971) | 36.319 (24.125) | 18.403*** (3.496) | 21.366*** (6.521) |
| PSD* (t −1) | −2.081 (5.36)    | −0.854 (26.514) | 3.918 (10.705) | 4.322 (26) | 4.829 (3.591) | 4.232 (7.537) |
| Electorate’s preferences for decentralization (Δ) | 15.295* (9.015) | 15.367 (16.147) | −18.391 (16.473) | −22.428 (20.028) | −12.845* (6.728) | −11.47 (8.879) |
| Electorate’s preferences for decentralization (t −1) | 13.335*** (6.545) | 12.89 (22.833) | 9.451 (10.458) | 9.446 (15.525) | 8.515* (4.896) | 9.49 (10.872) |
| Ethno-linguistic fractionalization (t −1) | 3.469 (2.509) | 3.893 (2.478) | 3.645* (2.156) |
| (Log of) area (t −1) | −0.057 (0.188) | −0.074 (0.161) | −0.066 (0.154) |
| Democracy indicator (t −1) | 0.556 (0.955) | 0.65 (0.976) | 0.706 (0.797) |
| (Log of) GDP per capita (Δ) | 0.098 (1.649) | 0.975 (4.272) | 0.363 (1.527) | 1.438 (5.29) | 0.93 (1.591) | 1.637 (4.541) |
| (Log of) GDP per capita (t −1) | −0.327 (0.268) | 0.522 (1.914) | −0.19 (0.274) | 0.598 (1.371) | −0.437 (0.288) | 0.499 (1.284) |
| Interregional inequality (Δ) | 6.319*** (3.001) | 0.087 (10.398) | 4.327 (2.914) | −1.671 (9.748) | 3.683 (2.891) | −1.639 (9.474) |
| Interregional inequality (t −1) | −0.712 (0.743) | −0.609 (11.203) | −0.629 (0.601) | −0.554 (9.811) | −0.467 (0.607) | −0.398 (8.604) |
| η |  |  |  |  |  |
| Constant | 7.274*** (2.178) | −8.582 (12.568) | 6.320*** (2.32) | −9.958 (11.565) | 8.498*** (2.491) | −9.747 (11.053) |
| Observations | 313 | 310 | 313 | 310 | 313 | 310 |
| R² | .252 | .159 | .253 | .178 | .276 | .204 |

Number of countries: 14

Note: ECM = error correction models; DV = dependent variable; RAI = Regional Authority Index; PSD = parliamentary salience of decentralization; PCSE = panel-corrected standard errors; FEVD = fixed-effects vector decomposition; GDP = gross domestic product. Standard errors in parentheses. Country and year dummies included for PCSE models but not displayed. Bold and italics indicate main independent variable(s) of interest.

*p < .10, **p < .05, ***p < .01.
### Table 3: FDs and AB Estimates of Changes in Political Decentralization in 19 Parliamentary Democracies, Legislature-Based Observations.

| DV: RAI | Absolute average PSD* | Seat-share average PSD* | Bargaining power average PSD* |
|---------|------------------------|-------------------------|------------------------------|
|         | FD                     | AB                      | FD                           | AB                           | FD                           | AB                           |
| Without economic controls | | | | | | |
| RAI ($\Delta t -1 / t -1$) | | | | | | |
| Without economic controls | | | | | | |
| RAI ($\Delta t -1 / t -1$) | | | | | | |
| With economic controls | | | | | | |
| With economic controls | | | | | | |
| RAI ($\Delta t -1 / t -1$) | | | | | | |
| With economic controls | | | | | | |
| Notes: FD = first difference; AB = Arellano-Bond; DV = dependent variable; RAI = Regional Authority Index; PSD = parliamentary salience of decentralization; AR = autoregressive process. Standard errors in parentheses. Bold and italics indicate main independent variable(s) of interest. *p < .10. **p < .05. ***p < .01.
Table 4. FDs and AB Estimates of Changes in Self-Rule and Shared Rule in 19 Parliamentary Democracies, Legislature-Based Observations.

| Bargaining power average PSD* | DV: Self-rule | | DV: Shared Rule | | |
|-------------------------------|---------------|-----------------|-----------------|-----------------|
|                               | FD            | AB              | FD              | AB              |
| **Without economic controls** |               |                 |                 |                 |
| Self-rule ($\Delta t_{t-1}$)  | 0.023         | 0.826***        | 0.008           | 0.357           |
|                               | (0.062)       | (0.071)         | (0.064)         | (0.210)         |
| Shared rule ($\Delta t_{t-1}$)|               |                 |                 |                 |
| $PSD^*$ ($\Delta t$)          | 21.493***     | 36.277***       | 0.576           | 0.568           |
|                               | (5.469)       | (11.788)        | (3.102)         | (0.705)         |
| Electorate’s preferences      | −10.917*      | −20.809*        | −3.784          | −5.862          |
| for decentralization ($\Delta t$)| (5.983)  | (10.212)         | (3.420)         | (5.327)         |
| Constant                      | 0.258***      | 0.015           | 0.015           | 0.041           |
|                               | (0.074)       |                 | (0.074)         |                 |
| Observations                  | 253           | 253             | 253             | 253             |
| $R^2$                         | 0.073         |                 |                 |                 |
| Hansen test, p value          |               | .727            | .759            |                 |
| AR(2), p value                | 0.247         | 0.300           |                 |                 |
| Number of countries           | 19            |                 |                 |                 |

| **With economic controls**    |               |                 |                 |                 |
| Self-rule ($\Delta t_{t-1}$)  | 0.107         | 0.401***        | 0.015           | 0.419***        |
|                               | (0.109)       | (0.123)         | (0.116)         | (0.020)         |
| Shared rule ($\Delta t_{t-1}$)|               |                 |                 |                 |
| $PSD^*$ ($\Delta t$)          | 38.329***     | 48.686***       | 2.445           | 1.540           |
|                               | (9.102)       | (11.634)        | (3.940)         | (3.175)         |
| Electorate’s preferences      | −17.264       | −19.467         | −3.836          | −4.679          |
| for decentralization ($\Delta t$)| (11.163)| (13.123)         | (5.026)         | (4.309)         |
| (Log of) GDP per capita ($\Delta t$) | 2.085 | 1.493         | −0.006          | −0.339          |
|                               | (2.824)       | (1.373)         | (1.224)         | (0.378)         |
| Interregional inequality ($\Delta t$) | −1.438 | 0.577         | 0.086           | 0.375*          |
|                               | (8.460)       | (11.070)        | (3.782)         | (1.838)         |
| Constant                      | 0.172         | 0.001           |                 |                 |
|                               | (0.245)       |                 | (0.109)         |                 |
| Observations                  | 87            | 87              | 87              | 87              |
| $R^2$                         | 0.194         |                 |                 | 0.008           |
| Hansen test, p value          |               | .968            | .913            |                 |
| AR(2), p value                | 0.468         | 0.321           |                 |                 |
| Number of countries           | 14            |                 |                 |                 |

Note: FD = first difference; AB = Arellano-Bond; PSD = parliamentary salience of decentralization; DV = dependent variable; AR = autoregressive process. Bold and italics indicate main independent variable(s) of interest.

*aInterregional inequality in Model (8) has been included in its unweighted version for estimation reasons.

*p < .10. **p < .05. ***p < .01
The difference between the two components of the RAI can be found in Table 4. The same pattern emerges with and without economic controls: While changes in the PSD seem to go hand in hand with changes in the degree of self-rule that regional governments can exercise, it appears that the patterns of shared rule are unrelated to what happens in parliament. This is consistent with what we suggested in the third hypothesis, and it is therefore one of the main findings of this article. Although it is evident that these two dimensions are conceptually very different, we show that, empirically, their dynamics also respond to different determinants. Whereas changes in the degree of shared rule appear to be largely unrelated to the preferences and power of parties in parliament, changes in the level of self-rule do seem to depend much more on what happens in the legislature.

Finally, the analyses presented in Table 5 seek to empirically assess Hypothesis 4. The coefficient of PSD (Δ) in the interactive models represents the effect of this variable when the cabinet has minority status (i.e., majority status = 0). Again, this is positive and statistically significant when we weigh PSD by parties’ bargaining power and when the dependent variable is self rule. However, the lack of statistical significance of the interactive term PSD...
Majority status \((t)\) means the fact that the government has majority status does not significantly modify the effect of PSD on self-rule. In other words, the positive impact of PSD does not depend on the status of the cabinet, which is in line with what we expected in the fourth hypothesis. Figure 2 illustrates this with a local polynomial smooth plot of the predicted values of self-rule on the bargaining power-weighted PSD variable.

In Figure 3, we can see a further illustration of the relationship between the legislative PSD, the status of the executive, and variations in self-rule in the particular case of Spain. The shaded bars reflect the periods in which the authority that regional governments could exercise over their territory was extended. Indeed, except for the period 1982 to 1986, they tend to coincide with terms where a minority cabinet was in place. But, following our argument, it was the distribution of parties’ preferences and bargaining powers in parliament that mattered in the first place rather than the status of the cabinet itself. Those minority cabinets needed the parliamentary support of regionalist parties with high decentralization demands, and therefore, it is not
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It is surprising that we observe the passage of decentralization reforms. Our measure of PSD captures this without needing to look at the status of cabinet that eventually formed, which could be a minority or a (multiparty) majority one. This is why we argue that it is the configuration of the parliament, and not the government, that explains the likelihood of decentralization reforms. According to Figure 3, Spanish regions’ self-rule increased precisely when the bargaining-power-weighted PSD was highest.

**Concluding Remarks**

In this article, we have shown that legislative bargaining crucially shapes the dynamics of decentralization in parliamentary democracies. More specifically, we have argued that the configuration of national parliaments is a decisive determinant of changes in the levels of political decentralization of a country—something that has been largely overlooked in previous research. The preferences of political parties for and against decentralization, along
with their legislative bargaining power, are here shown to be important factors behind the implementation of reforms devolving (or subtracting) power to (or from) regional entities.

To test our hypotheses, we have used Hooghe et al.’s (2008) measures of political decentralization and merged them with information from CMP data to account for parties’ positions regarding decentralization. We have constructed a new index of PSD that reflects parties’ preferences weighted by their legislative bargaining power—using the Banzhaf voting power index. After incorporating controls for structural determinants, the analyses have confirmed that changes in the composition of national parliaments do actually translate into decentralization reforms. Parliaments with higher average decentralization salience are more prone to decentralize. But most importantly, the specific distribution of bargaining power among parties in a particular parliament makes a dramatic difference in explaining the dynamics of decentralization. Thus, the focus on legislative bargaining puts us in a much better position to answer why and when countries decentralize in parliamentary democracies.

We have presented two crucial findings that highlight the importance of focusing on the legislative bargaining power of political parties. On one hand, we have shown that the dynamics of the self-rule dimension of decentralization can be fundamentally explained by taking into account the configuration of national parliaments—although this is not the case for the shared rule dimension of decentralization. On the other hand, we have provided evidence that the bargaining power of political parties explains such dynamics regardless of the cabinet status at executive level (majority vs. minority governments). In other words, once we account for the legislative bargaining power of parties, the position in which the executive finds itself does not add any further information with respect to the expected dynamics of political decentralization. The apparent preeminence of the legislative over the executive opens, we believe, relevant questions for further research.

In sum, we think that future works that aim to identify the political determinants of decentralization should direct their attention to parliaments and legislative politics. This article has taken a step forward in this direction by looking at parties’ preferences and legislative bargaining power, but additional efforts inquiring about other institutional characteristics of legislatures could certainly provide further insight into the study of countries’ decentralization policies. In fact, this new line of research follows Riker’s (1969) original advice that it is essential to focus on “the real forces in the political system” when studying federalism. More generally, our approach has shown that by taking into account the legislative bargaining power and policy
preferences of political parties, it is possible to reveal the dynamics of policy change in parliamentary democracies.

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Notes
1. The author refers to federal institutions, but exactly the same logic applies when thinking about endogenous decentralization.
2. See Amat, Jurado, & Leòn-Alfonso (2009) for a discussion of the relationship between the characteristics of the party system and the dynamics of decentralization.
3. Self Rule aggregates the following scales: institutional depth, policy scope, fiscal autonomy and representation. Whereas Shared Rule aggregates law making, executive control, fiscal control and constitutional reform. For a further description of each indicator, see Hooghe et al. (2008).
4. Though in a slightly different way, Benoit and Laver (2007) also group per301 and per302 to measure the position of parties on decentralization policy. Alonso and Claro da Fonseca (2011), however, implement the same operation to calculate parties’ positions on immigration policy.
5. The Banzhaf power index is defined by the probability of changing an outcome of a vote where voting rights are not necessarily equally divided among the voters (parties, in our case). To calculate the voting power of each party, all winning coalitions must be listed and then critical parties must be counted (i.e., a party that, if it changed its vote, would cause the measure to fail). A party’s power is then measured as the fraction of all swing votes that it could cast.
6. We treat our democracy-level measure as an almost time-invariant control in our analyses.
7. We thank Christian Lessmann for kindly making data on interregional inequality available to us.
8. This is a common problem across the literature on endogenous decentralization (Beramendi, 2007b; Erk & Koning, 2010; Panizza, 1999).
9. For further details on this procedure, contact the authors.
10. Note that Plümper and Troeger (2007) argue that the fixed-effects vector decomposition (FEVD) is a least biased estimator when time-variant and time-invariant variables are correlated with unit effects. The FEVD algorithm proceeds in three steps. It first estimates the unit effects by a baseline fixed-effects model excluding the time-invariant variables, then it regresses the unit effects on the time-invariant variables, and finally, it reestimates the first step by including time-varying and -nonvarying controls plus the residuals of the second step.

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