

# Local Cartels: Parliamentary Representation and Subnational Electoral Success

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## **Abstract**

This article investigates how parties' access to resources provided by the state improves their subsequent electoral performance. Previous cross-national research has emphasized the impact of legal rules on deterring new party entry. However, no clear consensus exists regarding the exact mechanisms that sustain insider parties while excluding outsiders. This article aims to fill this gap by arguing that the capacity of the former to ensure their own survival is higher whenever the benefits associated with presence in parliament are larger. Our main hypothesis is that, *ceteris paribus*, the greater the economic and informative resources parliamentary representation provides, the more likely obtaining at least one seat improves future electoral fortunes of political parties. We test it by exploiting the discontinuities generated by legal thresholds of representation at the subnational level in Spain, which allows us to causally identify the effect of parliamentary representation. We demonstrate that the magnitude of this effect is crucially shaped by the availability of important state subventions for parliamentary parties, the existence of a public television station at the regional level, the levels of fiscal decentralization, and the lack of a single-party with a parliamentary majority.

Ever since their first formulation as groups of notables, political parties have been constantly evolving in their organization, scope and ideological profile. Among the various theories that try to capture these gradual developments, the cartel party thesis clearly stands out as the most appealing conceptualization of political parties over the last decades (Katz and Mair, 1995). Cartel parties are not only dominant in advanced democracies (Webb et al., 2002), but they have also become central in formerly autocratic regimes (van Biezen, 2003). According to Katz and Mair (2009), the common defining feature of cartel parties is that by having gained access into the legislature, they use resources provided by the state to maintain their status as insiders. The exact institutional privileges alluded to by the authors can take various forms, with typical examples being the establishment of favorable financial subvention regimes and media access regulation (van Biezen and Rashkova, 2014).

Although the cartel party thesis sparked a voluminous literature among students of political parties and democracy (Blyth and Katz, 2005; Carty, 2004; Katz and Mair, 1995, 2009; Kitschelt, 2000; Koole, 1996), its systematic testing against the empirical evidence has been extremely difficult. There are probably many reasons for this lack of empirical work, but perhaps the two most important ones are the following. First, parliamentary insiders differ in many respects from outsiders, rendering comparisons between them problematic, and complicating the task of establishing the effect, if any, of parliamentary representation. Second, since the theory has been driven by the authors' observation of various West European democracies, testing the argument using as evidence the pool of countries that inspired the theory at first place is likely to lead to flawed inferences.

Aiming to unpack the mechanisms of cartelization, we try to address both of these concerns in our study. With regard to the first, we use the electoral thresholds of representation as a cutoff point that allows us to examine whether entering the parliament is accompanied by a gap in future electoral support. Second, following the suggestion of Geddes (1990), we test this argument not in the same context in which the theory was developed, but in a different context in which it should also apply. In particular, we do not focus on national electoral dynamics, but we look at subnational party competition. Although Katz and Mair had national parliaments in mind, their theory is driven by the exclusive benefits given to insiders. Thus, if the theory is valid, we should find a similar advantage in subnational politics insofar as entrance into regional parliaments is also accompanied by such benefits. We test whether this is the case by estimating the electoral effects of parliamentary representation in the Spanish subnational arena.

Transition to democracy in Spain also brought about an intense process of political and fiscal decentralization and the creation of 17 regions or autonomous communities in which the country is divided (Linz, 1985). Besides the radical change from the very centralist system of governance imposed under the dictatorship of General Franco to the relatively highly decentralized situation established by the current Constitution, the Spanish case is characterized by its spatial heterogeneity in the level of subnational competences. This variation, typically absent in other decentralized states, provides leverage to unpack the mechanisms driving the effects of parliamentary representation. More importantly for our identification strategy, entrance in regional parliaments in Spain is partially determined by fixed electoral thresholds. We use the discontinuities generated by these thresholds in order to examine whether marginal insiders outperform marginal outsiders in the next regional election.

To test our argument we created a new dataset, which includes all electoral results since the first regional elections after restoration of democracy in Spain. As a way to also delve into the mechanisms driving the parliamentary representation effect, we collected information on various structural and institutional factors that we expect to moderate the electoral benefits for subnational parliamentary insiders. Our results show, first of all, that obtaining parliamentary representation matters for subsequent electoral results. Spanish parties that crossed the legal threshold experienced close to a one-percentage-point increase of their vote share in the next subnational election. Subsequent analyses also show that the magnitude of this effect is further conditioned by the amount of state subsidies received by the parties and the existence of a public television station at the regional level. Following the second-order elections logic, this article also finds that the hypothesized effect is larger in scenarios of high fiscal decentralization. Finally, small parties that slightly obtain representation in Spanish subnational legislatures also considerably improve their performance in the next election when no party has obtained a majority of seats in the regional parliament that term.

## **1 Cartel parties: Theoretical perspectives and empirical implications**

The cartel party thesis postulates that parliamentary insiders make use of their privileged access to state resources to obtain a comparative advantage in party competition

(Bolleyer, 2009; Detterbeck, 2005; Katz and Mair, 1995; Pelizzo, 2008). Systematic attempts to empirically assess this thesis, however, are only scarce. This lack of empirical work has been also acknowledged by the original proponents of this theory, who highlighted the need to empirically study this phenomenon and examine its political consequences (Katz and Mair, 2009). This endeavor is worth to be pursued insofar as one is interested in the factors driving effective democracy. As Bartolini (1999, p.446) states, “[i]t is not ‘competition’ that we require for elections to be considered democratic, but much less (...) Elections must allow the entry of those who want to participate.” In fact, this debate echoes a question that was already formulated by Dahl back in the early 1970s (Dahl, 1971) regarding whether the politico-electoral market only needs to be open in order to be considered democratic. If this is true, then understanding the strategic incentives and institutional constraints under which party competition takes place becomes essential.

The literature on new party entry has focused both on structural and institutional determinants. With regard to the first, Harmel and Robertson (1985) find that ethnic heterogeneity and ethno-linguistic pluralism as well as large populations and sectionalism all generate more friendly conditions for the entry and success of new parties. Hino (2012) partially qualifies this view by examining three families of parties: radical right, new politics and regionalist parties. He finds that although socio-economic transformations over the last decades in established democracies have opened up a political opportunity structure, institutional constraints and most typically the electoral system is a decisive factor for the actual success of new parties (see also Bolin, 2014). Bolleyer and Bytzek (2013) delve into the organizational roots of new parties, showing that success is contingent upon the ability of new parties to generate strong ties with already organized groups in the society.

Moving now to the institutional factors, Hug (2001) points to the importance of rules that facilitate or constrain new parties’ participation in their first election (e.g., financial requirements or the number of signatures needed to form a party) in twenty-two established democracies. These insights are echoed in Tavits (2008) recent study of party system change in new democracies. In her account of the emergence and success of new parties in fifteen East European countries, she highlights the role of three main groups of explanatory factors: the cost of entry, the benefit of office, and the perceived level of electoral viability. Looking at one country over time (i.e., Spain since its transition to democracy), Lago and Martínez (2011) provide illustrative evidence about the importance of party system institutionalization and the failure of the electoral market. When

party systems are not institutionalized, divergence between political demand and supply augments the chances of successful new party entry. The argument points to the strategic role of established parties in the success of new parties (see also Meguid, 2005). In more general terms, Bolleyer and Bytzek (2013) shows that agency is necessary for new party entry and should therefore be taken into account. According to this more recent literature, understanding how insiders resist challenges from extra systemic political alternatives is fundamental to correctly account for the emergence and success of outsiders.

Here, we build on this exact idea, introducing, however, the specific dynamics of party system cartelization. In contrast to the previous literature, we do not examine how time-invariant structural and institutional constraints affect the success of new parties. Rather, we examine how changes in parties' insider status affect their support in the next election. Moreover, we try to delve into the mechanism driving this effect, producing a set of analyses that test directly the key pillars of the cartel party thesis.

According to the "cartel party thesis" (Katz and Mair, 1995), the so-called "insider" parties gain an electoral edge over their competitors by taking advantage of the resources of the state machinery. The proliferation of this sort of parties has been given pride of place in the literature of political parties (Blyth and Katz, 2005; Carty, 2004; Katz and Mair, 1995, 2009; Kitschelt, 2000; Koole, 1996). In most of these studies, the conclusion is that state resources are available both to the "party in central office" (Mair 1997: Ch. 6) and the parliamentary group (Katz and Mair 2009). By making use of these resources, insiders prevent newcomers from entering the institutional arena (Miller-Rommel and Pridham 1991). We expect this effect to manifest itself in all types of parliaments that provide such resources. Consequently, focusing on the Spanish regional elections, our first introductory hypothesis is the following:

*Hypothesis 1:* Entering the regional parliament increases the vote share of the party in the next regional election.

The extent to which insiders will be successful in pursuing this strategy, however, depends on the resources they have available. These resources stem in part from state subventions and access to and control over state-run media. We consider each of these factors in turn.

State subventions to political parties are tied to their prior electoral performance (Katz and Mair, 1995, p.15). Although regulations differ from country to country, in most cases the provision of public subsidies is guaranteed to all parties accessing the parliament,

which benefit with both constituency offices and support staff (Dinas and Foos, 2012). In decentralized systems, these subventions are also administered by subnational parliaments. This is why parties decisively orient their activities to get as many public offices as possible in all territorial levels. Spain is a typical example in this respect, as parties receive subsidies at the regional level and local branches are granted, as a result, autonomy (López Nieto, 2012). That said, whether the parties gain in electoral terms as a result of these subsidies remains unclear (Scarrow, 2006, p.635). For example, van Biezen and Rashkova (2014) show that the existence of public funding has no effect on the permeability of party systems. By the same token, Bolin (2014) finds that the effect of state subsidies is only weak. All in all, the evidence is far from conclusive. We try to contribute to this literature by systematically testing the following hypothesis:

*Hypothesis 2:* An increase in the amount of public financial subventions received by parliamentary parties should increase their vote shares in the next election.

A second way cartel parties accommodate themselves to the challenges they face by outsider parties is through changes in laws on media access (Lawson and Poguntke, 2004). According to Bolleyer and Bytzek (2013), easy access to free broadcasting increases a party's chance of repeated reelection. Insider parties in Spain have had since the democratic transition and still maintain a hegemonic access to public media (López Nieto, 2012). Additionally, parliamentary parties, above and beyond access to public television and radio stations, obtain significant exposure in both electronic and print private media, which should work to their benefit. That coverage is effectively functioning like an electoral cycle-long advertisement, which ensures that voters are aware of the party's existence and actions. This continuous media publicity is cost-free and sets them apart from non-parliamentary parties, which have to struggle to get any exposure. Given that political information is costly (Downs, 1957), this feature is very important, as it guarantees that parliamentary parties stay in the minds of voters. The benefit of visibility is hard to overestimate, as the incumbency literature from the US has extensively shown (Prior, 2006). If voters can recognize the name of a party, they are much more likely to have a sense of the policies it is promoting and will be able to evaluate whether it actually represents their interests. As a result, increased media exposure makes it more likely that voters will cast a vote for a parliamentary party in the next election. Hence, the third hypothesis of this study is:

*Hypothesis 3:* An increase in media access of parliamentary parties is expected to in-

duce increases in their vote shares in the next election.

The fact that we examine regional elections in Spain provides with an added opportunity to test the implications of the cartel party thesis. We do so by using an important insight from the literature on subnational elections. According to the “second-order elections” approach (Reif and Schmitt, 1980), regional elections in Spain are “second-order” in that they are viewed as less important than first-order (national) elections by voters, parties and the media. This characterization has important implications for our object of study. On the one hand, voters are more prone to vote for protest parties, or parties in the periphery of the system in second-order elections, rather than the usual mainstream parties they would vote for in a national election. On the other hand, the comparatively lower importance of regional elections renders strategic orientations less crucial in vote choice. This is why we argue that the “second-orderness” of subnational elections in Spain is a factor decreasing the impact of parties’ parliamentary presence on their future electoral results.

Yet, as Mikhaylov and Marsh (2010) note in the case of the European elections, there are degrees of “second-orderness” and some elections partake more of this phenomenon than others. Likewise, some regional elections in Spain are more second-order than others for two main reasons. First, the process of decentralization in this country has been asymmetrical both in its revenue and expenditure sides (León-Alfonso, 2007). As a result, different groups of regions exist with divergent powers over revenue sources and expenditure capacities. Secondly, regions have been increasingly granted greater fiscal powers. As a consequence, we should observe a significant increase in the impact of parliamentary representation over time. All in all, variance in decentralization levels both across regions and over time allows us to test the following fourth hypothesis:

*Hypothesis 4:* The higher the control regional institutions exert over policy areas, the higher the impact of parliamentary presence on parties’ vote shares in the next election.

Although parliamentary representation is accompanied by exclusive benefits available only to insiders, it does not guarantee full access into the state machinery. The prerequisite for the latter is participation into the government. However, elites choose their governments in ways that make it difficult to simply compare parties that are in the government with parties that are not in the government. For this reason, in our last hypothesis we try to address whether participation in the government exacerbates the effect of parliamentary presence by comparing legislatures with a single party that obtains



more than 50% of the seats with legislatures without a single party with a majority of the seats. Whether a single party obtains a majority of seats in parliament or not may influence small parties' ability to have an impact in the policy-making process and, as a result, may affect their subsequent electoral results.

According to [Cheibub et al. \(2004, p.574\)](#), in 56.8 per cent of situations under parliamentarism between 1946 and 1999 no party controlled a majority of seats, so that a majority government could result only from forming a coalition. These multi-party cabinets would typically include at least one small party. Alternatively, small parties may influence legislative decisions even if they stay out of the cabinet as long as the party in government holds an insufficient number of seats in parliament. Importantly for our purposes, the role of legislative success rates of small parties should not be restricted to those of them that enter the government but extend to parties that remain out of the cabinet as well. Certainly, most small legislative parties do not become members of government, but entering the parliament is a precondition for being in the cabinet, insofar as there is no a single party with a majority of seats. Thus, we compare the vote shares of parliamentary insiders with those of parliamentary outsiders, expecting more notable differences in terms with no single party with a majority of seats.<sup>1</sup> That defines the final hypothesis:

*Hypothesis 5:* The lack of a parliamentary majority by the party that won the last elections should increase the vote shares of parliamentary parties in the next election.

To test our expectations we make use of the discontinuities generated by the legal thresholds adopted at the regional level in Spain. In the following two sections we describe the case study and the identification strategy in more detail.

## 2 Case selection and data

There are at least two methodological reasons for selecting Spain as our empirical case of study. First of all, examining only one country allows us to test our main hypotheses of how parliamentary representation helps parties to improve their performance in the next electoral cycle while controlling for institutional or cultural confounders that vary

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<sup>1</sup>A counter-argument could be, of course, that by participating in the government small parties incur in the associated costs ([Font, 1999](#); [Strøm et al., 2008](#)). Recent studies seem to suggest that party size does not affect the extent to which a coalition member is subject to electoral accountability ([Fisher and Hobolt, 2010](#)). However, if the cartel thesis holds at the regional level, we should find that the benefits of being in government outweigh its costs.



across countries. As a minimum, we increase precision in our estimation by focusing on a homogenous political environment.<sup>2</sup>

Second, the democratic transition and consolidation in Spain have taken shape around a dual process of recovery of civil and political freedoms, and economic and legislative decentralization. In accordance with the 1978 Constitution, Spain is divided into 17 Autonomous Communities that elect their own parliaments and governments. Although political institutions in all the regions share a similar pattern, we still find significant differences in the character of inter-party competition across regions provoked by variations in the intensity with which the center-periphery cleavage is lived all over the country. Moreover, the fact that the decentralization process in Spain has been progressive over time let us to exploit time as another potential source of variation (Lago-Peñas, 2005, p.445). This spatial and temporal heterogeneity adds some extra interest to the selection of Spain as object of study.

All the Spanish regions have a proportional representation system of closed party lists. Thresholds can be found at the regional (e.g., Madrid), provincial (e.g., Catalonia), island (i.e., Balearic Islands) or supra-municipal (e.g., Asturias) level. Table 1 displays the legal thresholds employed in each election for all the regions and is based upon the electoral law of each region. As shown, we have a diverse list of thresholds that vary across regions and over time. Thresholds range from a minimum of 3% of the provincial vote in most of the elections to 6% of the regional vote in the Canary Islands from 1996 onwards. By contrast, parties that obtain less than 3 per cent of the votes in a constituency (i.e., a province) are excluded from the allocation of seats in all national elections.<sup>3</sup>

Our unit of analysis is each party at the district level in each regional election. The main exception concerns the regions of Valencia, Murcia, and Asturias in 1983, in which we use party vote shares at the regional level, given that the legal threshold is also regional. The regions of Extremadura after 1986 and the Canary Islands are also particular cases because they have a dual threshold (province and region in Extremadura, province and island in the Canary Islands), and here we also consider the vote shares at the regional

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<sup>2</sup>In all the regions, seats to parties in regional elections have been allocated during the whole democratic period according to the D'Hondt method in multi-member districts, except for the single-member district of Formentera in the Balearic Islands. Even more importantly, all the Autonomous Communities have established legal thresholds to avoid the presence of an excessive number of parties in regional legislatures. Incumbents in almost half of them (i.e., Asturias, Balearic Islands, Basque Country, Canary Islands, Extremadura, Galicia and Navarre) have slightly tinkered with thresholds along the current democratic period.

<sup>3</sup>All the electoral data we use can be found at <http://www.argos.gva.es/ahe/indexv.html>.

level, which is the level at which the most relevant threshold operates.

Spain is an “imperfect” two-party system also at the regional level because the PP and the PSOE obtain most of the cast votes and, as a result, regional prime ministers usually belong to one of these two parties. Three other smaller national parties have, however, been important players in at least one point in time: the Communist Party/United Left (Partido Comunista de España/Izquierda Unida [PCE/IU]), the Democratic and Social Centre (Centro Democrático y Social [CDS]), and Union, Progress, and Democracy (Unión, Progreso y Democracia [UPyD]). Moreover, there is a bunch of regional parties. Convergence and Union (Convergència i Unió [CiU]) and the Nationalist Basque Party (Partido Nacionalista Vasco [PNV]) are the two most important and have been dominant in their regions of influence (i.e., Basque Country and Catalonia) for almost the entire democratic period. The other regional parties can be considered as minor. Hence, support for the three smaller national parties and many regional parties except for CiU and the PNV is close to the threshold of representation in many districts, leading us to usually employ them in our analyses.

In order to test the various possible mechanisms and heterogeneous treatment effects at work, we use the following variables. First of all, information on public funding of Spanish parties at the regional level was compiled from several reports produced by the Spanish Court of Accounts (Tribunal de Cuentas).<sup>4</sup> Second, data on the creation of public television stations at the regional level was obtained from the Federation of Organizations of Regional Radio and Television (Federación de Organismos de Radio y Televisión Autonómicas [FORTA]). The first public broadcasting network at the regional level was founded in the Basque Country in 1982 and the last ones were launched in Aragon, Asturias, the Balearic Islands and Murcia in 2005. Only four autonomous communities (Cantabria, Castile and Leon, La Rioja and Navarre) have lacked a public broadcasting network throughout the entire period of observation. Third, we follow the standard practice in the literature on fiscal decentralization and use the ratio of regional government public expenditure to regional Gross Domestic Product (GDP) to determine the economic resources managed by regional institutions. As can be seen in our data, this proportion has considerably increased over time. Finally, we collected data on situations in which the party that obtains the largest number of regional seats is short from a parliamentary majority from [www.historiaelectoral.com](http://www.historiaelectoral.com). The winner of the elections does not obtain a parliamentary majority in the 46% of terms we study. Summary statistics of all variables

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<sup>4</sup>These reports are downloadable from the Tribunal de Cuentas’ website: [www.tcu.es](http://www.tcu.es).

Table 1: Legal thresholds in autonomous electoral systems, 1980–2011 (%)

Regions/Elections <sup>a</sup>	I	II	III	IV	V	VI	VII	VIII	IX
Andalusia	3	3	3	3	3	3	3	3	3
Aragon	3	3	3	3	3	3	3	3	
Asturias <sup>b</sup>	5	3	3	3	3	3	3	3	3
Balearic Islands	3	3	3	5	5	5	5	5	
Canary Islands <sup>c</sup>	3	3	3	3	6	6	6	6	
Cantabria	5	5	5	5	5	5	5	5	
Castile and Leon	3	3	3	3	3	3	3	3	
Castile-La Mancha	3	3	3	3	3	3	3	3	
Catalonia	3	3	3	3	3	3	3	3	3
Extremadura <sup>d</sup>	3	5	5	5	5	5	5	5	
Galicia	3	3	3	5	5	5	5	5	
Madrid	5	5	5	5	5	5	5	5	5
Murcia	5	5	5	5	5	5	5	5	
Navarre	5	3	3	3	3	3	3	3	
Basque Country	3	5	5	5	5	5	3	3	3
La Rioja	5	5	5	5	5	5	5	5	
Valencian Community <sup>e</sup>	5	5	5	5	5	5	5	5	

Source: Authors' elaboration upon Oliver (2011).

<sup>a</sup> Elections in Andalusia took place in 1982, 1986, 1990, 1994, 1996, 2000, 2004, and 2008; in Catalonia, in 1980, 1984, 1988, 1992, 1995, 1999, 2003, 2006 and 2010; in Galicia, in 1981, 1985, 1989, 1993, 1997, 2001, 2005 and 2009; in the Basque Country, in 1980, 1984, 1986, 1990, 1994, 1998, 2001, 2005 and 2009; in Madrid, in 1983, 1987, 1991, 1995, 1999, 2003, 2003, 2007 and 2011; in Asturias, in 1983, 1987, 1991, 1995, 1999, 2003, 2007, and 2011; and in the remaining Autonomous Communities, in 1983, 1987, 1991, 1995, 1999, 2003, 2007 and 2011.

<sup>b</sup> In the 1983 elections, the legal threshold was 5% of the valid votes cast in the Autonomous Community; from 1987 onwards, the legal threshold is the 3% of the valid votes cast at the district-level.

<sup>c</sup> From 1983 to 1995, there are two alternative thresholds: in order to participate in the allocation of seats, parties have to obtain at least either 3% of the valid votes cast at the regional level or 20% of the valid votes cast at the district-level (i.e., in a given island). From 1996 onwards, there are three alternative thresholds: in order to participate in the allocation of seats, parties have to obtain at least either 6% of the valid votes cast at the regional level, 30% of the valid votes cast at the district-level (i.e., in a given island), or have to win a particular district.

<sup>d</sup> In 1983, parties have to obtain at least 3% of the valid votes cast at the district-level to participate in the allocation of seats. From 1987 onwards, there are two alternative thresholds: parties have to obtain at least 5% of the valid votes cast either at the district or the regional-level in order to have the right to participate in the allocation of seats.

<sup>e</sup> Parties have to obtain at least 5% of the total votes cast at the regional level (valid plus invalid).

Table 2: Summary statistics

Variable	Mean	Min	Max	N
Vote share in election t0	7.05	0	58.82	1261
Vote share in election t1	8.22	0	58.3	775
Outcome (vote share above threshold in t1)	1.37	-5.30	19.60	533
Forcing (vote share above threshold in t0)	0.57	-4.85	4.90	533
Treated unit (obtained parliamentary representation)	0.61	0	1	533
Compliant case (above threshold, with parl. representation)	0.69	0	1	533
High party cartelization (values above median)	0.42	0	1	533
With public regional TV (dummy)	0.37	0	1	533
High decentralization level (values above median)	0.49	0	1	533
Single-party with parliamentary majority (dummy)	0.54	0	1	533

*Note:* When preparing our outcome, forcing, and treatment variable, we only include cases in which the party is less than 5 points above or below the threshold.

employed are presented in Table 2.

### 3 Research design

Parliamentary insiders differ from outsiders in various respects, some of which remain unobservable and affect parties' popularity. To address this problem of unobserved heterogeneity, we make use of the electoral thresholds alluded to above. Electoral thresholds involve barriers for representation in the form of a fixed percentage that operates as the minimum required vote share to elect representatives in the regional legislature. Focusing on parties just above or below this threshold, we examine whether insiders that marginally enter the regional parliament gain more votes in the next regional election than parties that had been left marginally out.

The validity of the Regression Discontinuity (RD) design rests on the assumption that agents have imperfect control over their assignment variable near the cutoff point. Such inability to manipulate their exact score creates room for a continuously distributed stochastic error component to the assignment variable, which ensures that variation in treatment assignment is as good as randomized within the neighborhood around the threshold. Thus, under imprecise control over the assignment variable, RD designs are equivalent to local randomized experiments (Lee, 2008). In our setup, the agents are parties and the assignment variable is parties' vote shares in the subnational election. Our

design is thus based on the assumption that parties cannot fully control their exact vote share and thus whether they will end up right above or below the threshold becomes a matter of chance. Consequently, we can use parties right below the threshold (those denied the treatment) as a valid counterfactual for those right above the threshold (those who received the treatment).<sup>5</sup>

Turning into estimation issues, we encounter the following problem. On the one hand, exchangeability of control and treated units is increasingly less likely to hold as we move away from the cutoff point. With a 3% electoral threshold for example, a party at 2.5% can be treated as the counterfactual to a party with vote share right at the cutoff point. A party at 1.5%, however, is already 50 per cent lower than the threshold. Thus, widening the window around the threshold threatens the internal validity of the design. On the other hand, focusing on a very narrow window around the cutoff point reduces dramatically the number of observations.

Our solution to this problem is to stick to a narrow window, using randomization inference (RI) for the estimation of the uncertainty surrounding our treatment effect estimates (Ho and Imai, 2006; Imbens and Rosenbaum, 2005; Cattaneo et al., 2014). Randomization inference provides two important advantages. First, it is intuitively appealing because it comes closer to the conceptualization of the RD as a local randomized experiment. Second, it permits exact finite-sample inference that is most appropriate with small sample sizes (Cattaneo et al., 2014). Since our analysis is often based on no more than 100 observations, distributional and functional form assumptions become hard to justify. RI is much preferable in this setting, as it does not depend on large sample assumptions, allowing thus inference based on narrow windows around the threshold.

Our estimation strategy comprises two steps. First, we follow Cattaneo et al. (2014) and engage into a data-driven procedure for the selection of the neighbourhood around the cutoff point. In particular, we use the parties' vote share in the previous election as the pre-treatment covariate in which balance between parties below and above the threshold needs to be obtained. We use sequentially nested windows as a way to identify the largest possible window within which treated and control groups denote non-significant differences in their previous vote share. We use a 10% critical value for significance test-

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<sup>5</sup>Implicit here is the assumption that the distribution of other baseline covariates does not change discontinuously at the threshold. This assumption follows directly from the identifying assumption of the RD design, namely that agents have imperfect control over the assignment variable. If the latter assumption holds, then, in expectation, the former also holds. Later, we test for baseline covariate balance at the cutoff point.

ing to make the balance exercise more conservative. In our main analysis, this procedure resulted into a window of 1.20% of the vote, which for example would include observations between 1.8 and 4.2 per cent of the regional vote for the cases with a 3% threshold. Within this interval, we calculate the difference of means between parties below and above the threshold. To see whether this difference is due to sampling variability we construct 10,000 local randomization permutations and for each one of them we test the null of zero effect. The resulting distribution of outcomes is compared to the difference of means found in the data. The final p-value reflects the exact probability of having observed the difference between the two group means in the data under the sharp null of no effect.

For our conditional hypotheses, we follow the same estimation procedure with the only difference being that we now split the sample into two groups. When the moderating variable is continuous (decentralization, cartelization), we distinguish between observations below and above the median. When the moderating variable is binary (majority government, regional TV), we implement the analysis within each of these categories. For each set of analyses, we use the same window, which is the largest window that yields balance in both groups.

A key feature of Spanish elections is that a tool working against PR – low district magnitude – often deactivates the role of electoral thresholds. In some cases, the number of seats allocated to the constituency is too small to enable the operation of the threshold. In other words, parties can fail to win seats even when they obtain more votes than required by the legal threshold. This means that there are some never-takers, parties that fail to elect representatives albeit having surpassed the electoral barrier. To account for the less-to-one probability of taking the treatment among the group of parties that is assigned into the treatment condition, we also present results using a fuzzy regression discontinuity design, whereby crossing the threshold becomes now the instrument for the actual treatment, i.e. subnational parliamentary representation. Our primary results, however, use a sharp RD, excluding those few cases that qualify as never-takers.

The validity of the design depends on whether parties can perfectly manipulate their vote share so that they can choose whether to be in or out of the regional parliament. One standard way of testing for this possibility is to implement the McCrary test for a jump in the density of the assignment variable at the threshold (McCrary, 2008). The test fails to reject the null of no sorting ( $p < .12$ ). Figure 4 in the Online Appendix illustrates the

Table 3: Covariate balance

	Model 1	Model 2	Model 3
Vote share in previous election	0.14 (0.09)		0.11 (0.09)
High party cartelization		0.28 (0.51)	0.39 (0.62)
With public regional TV		1.07 (0.61)	1.28 (0.73)
High decentralization level		0.11 (0.58)	-0.11 (0.76)
Minority government		0.61 (0.56)	0.44 (0.70)
Intercept	-1.70* (0.55)	-1.79* (0.61)	-2.39* (0.87)
N	64	84	64

*Note:* This table displays the results of a logistic regression of treating assignment on this set of covariates, including only observations in our window of analysis (1.20); \* significant at  $p < 0.05$ .

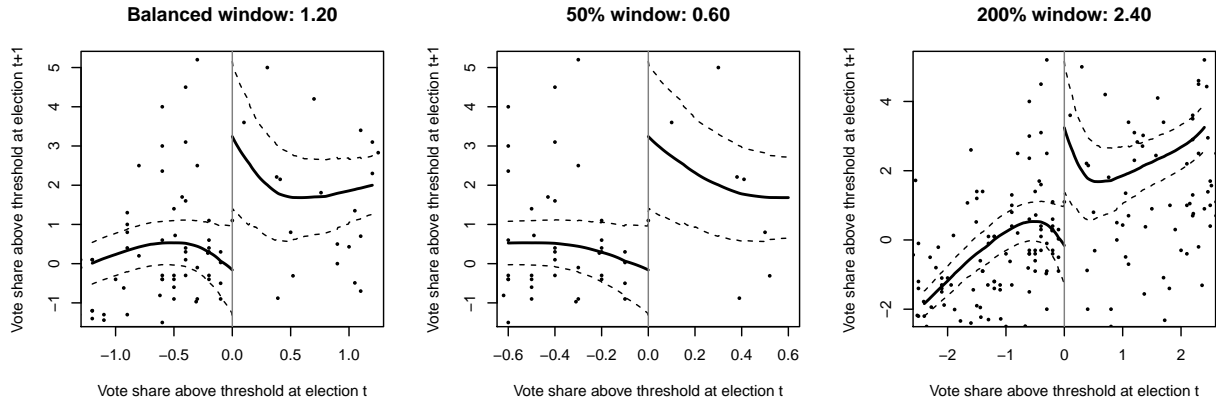
absence of sorting in parties' vote shares in regional elections either above or below the threshold. Another validity check involves the examination of whether there is balance in baseline covariates. We do this in Table 3. We employed vote share in election t-1 as the baseline covariate used to identify the largest window that ensures balance between the two groups. Within this window we test whether we also have balance in the other characteristics shown in Table 2. The results confirm that this is the case. None of these covariates registers a significant discontinuous change in its distribution at the point of the threshold.

Along the main results, we also implement the following sensitivity analyses. First, we provide placebo tests in which there is no difference in terms of treatment status although the average difference in the vote shares of the two groups is the same. Third, we examine the sensitivity of our results to different windows. Fourth, we also provide estimates using a more standard local regression estimator with a bandwidth equal to the window of our IR analysis.<sup>6</sup> We further check the sensitivity of the local regression estimates along different bandwidths.

<sup>6</sup>The local regression estimator is often used in RD analyses due to its minimal functional form assumptions and its attractive bias properties in estimating regression functions at the boundary.



Figure 1: Vote share at election  $t_1$  conditional on electoral performance at  $t_0$



*Note:* Each panel displays the data within different windows around the discontinuity, with bold lines indicating local regression estimates on each side of the threshold. The dashed lines denote the 95% CIs.

## 4 Results

We first start with the question about electoral performance in the following regional elections. Figure 1 plots the data showing parties' vote share at election  $t_1$ , conditional on their vote share at  $t_0$ . The 95% point-wise bootstrapped confidence bands accompanying the local regression estimates are shown with the dashed lines. The first panel of Figure 1 presents the RI window where we find covariate balance, the second panel presents half of this window and the third panel the double of the initial window. All three graphs suggest that there is a positive gap between the two groups. Parties above the threshold seem to perform, on average, better than parties below the threshold.

Table 4 displays the formal Randomization Inference (RI) results, which indicate the size and significance of the estimated treatment effect on the treated.<sup>7</sup> Column 1 of Table 4 shows the results for the Sharp RD whereas the column 2 shows the results for the Fuzzy RD.<sup>8</sup> In both instances we find a positive effect, which implies that parties in the parliament increase their vote share by approximately 1 percentage point, an estimate

<sup>7</sup>Treatment effects were estimated using the `ri` package in R (Aronow and Samii, 2012) for the discontinuity design using randomization inference and the `rdd` package in R (Dimmery, 2013) for the discontinuity design using local regression.

<sup>8</sup>The Fuzzy RD in this case represents the Intent-To-Treat effect, as the estimation is equivalent to the first column, using however both compliers and never takers. No adjustment is made for imperfect compliance. Thus, this is probably a conservative estimate of the average treatment effect on the treated.

Table 4: Estimation of treatment effects for parties above legal threshold

Randomization Inference estimates		
	Sharp RD	Fuzzy RD
Window	1.20%	1.20%
ATT	1.06 (0.62)	1.10 (0.51)
N	84	162
Placebo tests		
	One unit above	One unit below
Window	1.20%	1.20%
ATT	0.81 (0.57)	1.07 (0.81)
N	97	49

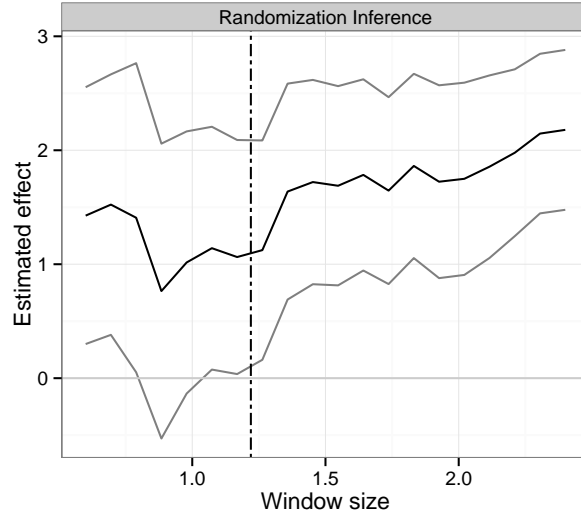
*Note:* Estimates measure the effect of being above the legal threshold in election to on the vote share of the same party in election t1. ATT stands for Average Treatment Effect on the Treated. It only includes pairs of elections where the electoral threshold remains constant. Parties above the threshold that do not win a seat (never-takers) are excluded in the sharp design. The window was computed by finding the largest window with covariate balance (see Table 3). Treatment effects were estimated using randomization inference.

that corresponds to an increase of 25 per cent of their vote.<sup>9</sup> Figure 2 offers a visual representation of the treatment effects estimated at different windows. Consistently with the results from Table 4, this plot indicates the existence of a significant and positive difference in electoral performance between parties right above the threshold (which obtain representation) and right below it (which do not obtain representation).

Despite some fluctuations the results seem robust to different windows. The last row of Table 4 shows two placebo effects: using the same window and two artificial thresholds, we examine whether higher vote shares at t0 matter when not combined with change in treatment status. In the first column we consider as new artificial threshold the previous threshold minus one percentage point. The control group here is thus all parties with vote share between 1.0 and 2.20 percentage units below the threshold. We find no significant increase in the vote share of the “treated” group. In the second column we replicate the analysis with an artificial threshold one percentage point above the original threshold: now the control group consists of parties between -0.20 and 1 percentage points above the threshold and the treated group includes parties with vote share between 1 and 2.20 percentage points above the threshold. Again, we find no gap between the two groups in their electoral performance at t1. In both analyses the comparison in-

<sup>9</sup>The average threshold across all cases is 4%.

Figure 2: Window sensitivity



*Note:* This figure displays the estimated treatment effect using different windows. The vertical line indicates the largest window in which there is balance with respect to lagged vote share.

Table 5: Local regression estimation

Window	Sharp RD	Fuzzy RD
	1.20%	1.20%
ATT	3.40	9.81
	(1.35)	(6.17)
N	84	162

*Note:* Entries are local regression estimates, with Imbens-Kalyanaraman (2011) standard errors in parentheses.  $h$  denotes the bandwidth used for the estimation.

volves groups with the same parliamentary status, outsiders and insiders respectively.

Table 5 presents the same analysis but using a local regression estimator (with a triangular kernel) within a bandwidth equal to the window used in the previous analysis, i.e. 1.2%. Column 1 presents the sharp RD and column 2 presents the fuzzy RD. Although there is significant variation in the magnitude of the estimates, we find a positive gap in both analyses. The conclusions drawn on the basis of the RI analysis seem robust to the use of local regression estimation. Figure 5 in the online appendix shows that the effects do not depend much on the bandwidth chosen.

Table 6: Estimation of treatment effects, by subsets of regions

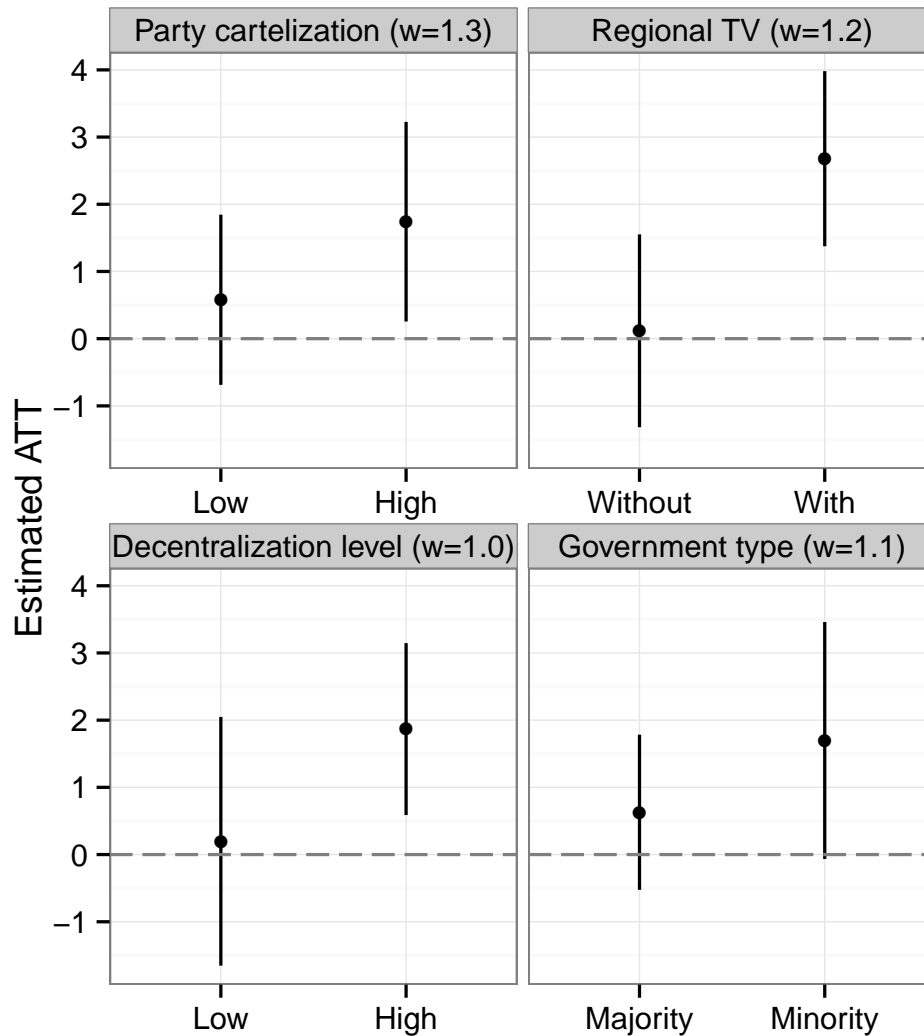
	Low party cartelization	High party cartelization
ATT	0.57 (0.76)	1.74 (0.91)
w	1.30%	1.30%
N	55	39
	Without public regional TV	With public regional TV
ATT	0.12 (0.87)	2.68 (0.80)
w	1.20%	1.20%
N	58	26
	With low decentralization levels	With high decentralization levels
ATT	0.49 (1.10)	1.85 (0.70)
w	1.10%	1.10%
N	39	39
	With single-party majority	Without single-party majority
ATT	1.69 (1.06)	0.63 (0.70)
w	1.10%	1.10%
N	38	40

*Note:* w=window of observation with covariate balance, computed as the largest window where balance is attained in both subsets of the data. The estimates measure the effect of being above the legal threshold in election to on the vote share of the same party in election t1. ATT stands for Average Treatment Effect on the Treated. It only includes pairs of elections where the electoral threshold remains constant. Parties above the threshold that do not win a seat (never-takers) are excluded.

#### 4.1 Mechanisms: Explaining the size of the electoral “bonus” associated with parliamentary representation

We now turn to the analysis of the treatment effect estimates in different subsets of our dataset in order to examine the mechanisms that may explain the existence of a positive effect of parliamentary representation on parties’ subsequent electoral performance. Table 6 reports our results in regions with high and low party cartelization (financial resource mechanism), with and without a public regional TV (media exposure mechanism), with high and low decentralization levels (second order elections mechanism), and with and without a single-party with a majority of seats (policy/government mechanism), applying the same optimal bandwidth than in our previous sharp RD analyses. Figure 3 displays these estimates graphically.

Figure 3: Exploring the Mechanism: Treatment effect estimates, by subsets of data



*Note:* Each panel displays 90% confidence intervals for the treatment effect estimates after dividing the data in subsets based on whether party cartelization was above or below the median level, whether the region had a public regional TV or not, whether the region was above or below the median decentralization level, and whether there was a single-party with majority or not. Treatment effects are displayed as estimated with the window specified on the facet title.

Almost all our theoretical expectations bear out. However, none of the differences is statistically significant at conventional levels in part due to the lack of power associated with our limited sample size. As expected, we find that the amount of resources allocated to parties, which we labeled as “party cartelization”, affects the magnitude of the treatment effect: parties above the threshold obtain between 1 and 3 percentage points more of vote share in the subsequent elections in those regions where “party cartelization” is above its median value. By contrast, the effect of parliamentary representation is not statistically significant at conventional levels in elections where “party cartelization” is below its median value. We also find that the positive effect of parliamentary representation on subsequent electoral performance is larger for parties in contexts in which a public regional TV is operating. More specifically, we find that the existence of this kind of media improves parliamentary parties’ vote shares in the following election by around 3 percentage points. In contrast, the effect of parliamentary representation is not statistically significant at conventional levels when there is no public regional TV.

According to the intuition in the existing literature, treatment effects appear to be larger in regions where elections hardly fit the “second order” paradigm; that is, where fiscal decentralization is high. In contrast, obtaining at least one seat in contexts of low decentralization does not have any discernible impact on parties’ future electoral fortunes. Finally, the effect of the parliamentary status is in the right direction (i.e., greater for contexts of lack of a single party with a parliamentary majority) though it does not appear to affect significantly the magnitude of the treatment effect. One possible explanation is that small parties (i.e., those around the legal threshold that we examine here) only rarely end up having actual influence in the policy-making process either directly by participating in coalition governments or indirectly by getting passed their legislative proposals. Moreover, it could be the case that a small party becomes a government partner even when the first party wins a majority of seats resulting in the formation of an oversized coalition.

## 5 Conclusions

According to [Katz and Mair \(1995\)](#), most political parties in democratic countries have become cartel parties in recent decades. These “insider” parties use the resources of the state to improve their performance in subsequent elections and maintain, as a result, their position within the political system ([Dinas et al., 2014](#)). Nowadays, obtaining parliamen-

tary representation provides parties with several benefits. Parties that win at least one legislative seat get access to public funding, increase their media visibility and are able to participate in the policy-making process by voting in favour or against new legislation. Despite the theoretical consensus about the mechanisms that account for the diverging destinies of “insiders” and “outsiders”, their empirical test remains relatively undeveloped. Within this framework, we have made two important contributions.

First of all, by addressing the issue of endogeneity between parties’ characteristics and parliamentary representation, this article is able to estimate the causal effect of obtaining at least one seat on insiders’ subsequent electoral results. Although some previous literature had already shown this impact in terms of causality, the evidence had been so far confined to the cross-national level. Hence, one of the main novelties of our approach lies in the use of subnational data from a quasi-federal state like Spain. The regression discontinuity estimates displayed in the paper show that the basic tenets of the cartel party theory also hold in a context relatively different from what its “fathers” originally had in mind when they formulated it for the first time.

Secondly, we find that four mechanisms are at least partially responsible for this treatment effect. Although the displayed evidence is far from conclusive due to small sample limitations, we show that obtaining parliamentary representation only has a significant positive impact on parties’ future electoral fortunes when one of the following three conditions are met: considerable public funds for parliamentary parties, existence of a public regional TV, or high levels of fiscal decentralization. In addition, parliamentary parties seem to improve slightly more their subsequent electoral performance in case of lack of majority by a single party. More specifically, passing the legal threshold increases parties’ vote shares in the following election by approximately two percentage points in these four particular contexts. While this magnitude is not likely to drastically change the Spanish political system at the regional level, it confirms some of the main predictions of the cartel party theory.

Several questions are left unanswered and open for future research. Regarding the cartel party theory, future work should make use of research designs that estimate causal effects, and should confirm results for other countries and political systems using different identification strategies. Regarding the several possible mechanisms at work, it would be interesting to explore more sophisticated measures of what constitutes media visibility, as well as which is the actual influence of the parties that slightly pass the thresholds



in the legislative process. While it could be hypothesized that by obtaining parliamentary representation they are able to advance their political agenda, so far this is just a conjecture that should be explored empirically. Another potentially fruitful area of study would be to look at different types of small parties and test the existence of heterogeneous treatment effects. Finally, further research should also take a closer look at the conditioning effect of fiscal decentralization to confirm whether the results found in this paper are specific to the politics and economics of Spain or whether they are a general phenomenon.

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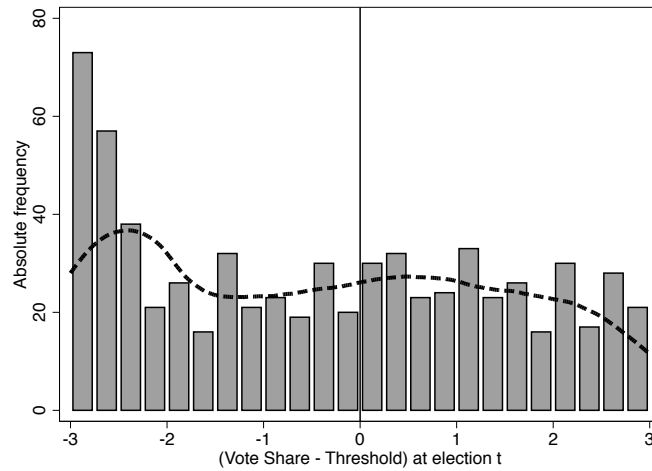
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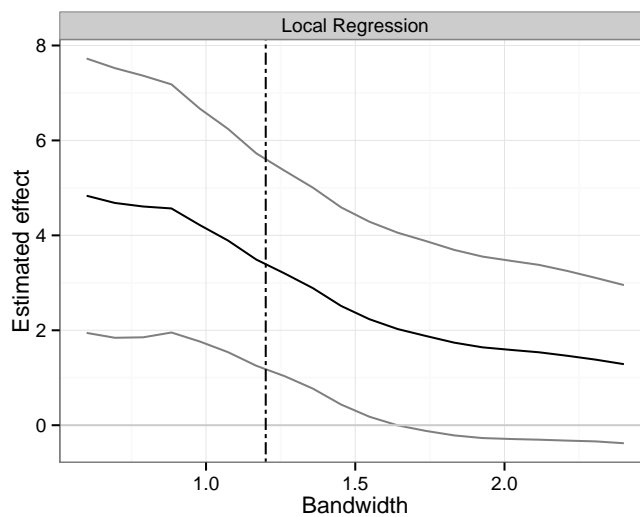
## A Additional Figures

Figure 4: Discontinuity test



*Note:* The figure shows the number of observations within 0.25-percentage-point bins, along the forcing variable (vote share below and above the legal electoral threshold).

Figure 5: Bandwidth sensitivity (local regression)



*Note:* This figure displays the treatment effect estimated using local regression and different bandwidths. The vertical line denotes the window to the left of which we find covariate balance.