Powers that be? Political alignment, government formation, and government stability

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Abstract

We study how partisan alignment across levels of government affects coalition formation and government stability using a regression discontinuity design and a large dataset of Spanish municipal elections. We document a positive effect of alignment on both government formation and stability. Alignment increases the probability that the most-voted party appoints the mayor and decreases the probability that the government is unseated during the term. Aligned parties also obtain sizeable electoral gains in the next elections over unaligned ones. We show that these findings are not the consequence of favoritism in the allocation of transfers towards aligned governments.

Keywords: Government stability; government formation, political alignment, inter-governmental relations.

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1. Introduction

In parliamentary democracies, the head of government is chosen by the legislature after bargaining among parties. The most-voted party typically proposes a coalition to potential allies promising cabinet seats, some control over the agenda, or other benefits in exchange for support. If the proponent party gathers a sufficient support from other parties, then a government is formed. The stability of the resulting government is tightly linked to that of the majority that supports it as the government might be unseated if some of the coalition partners quit to join an alternative coalition.

However, no government is an island, and external factors will affect its fate. Local governments cooperate and wrangle with those in the upper tiers, such as the region or the state. Similarly, national governments deal with international institutions and organizations. Partisan affinities cut through these layers and affect how different tiers of government interact with each other. A party aligned with upper-levels of government enjoys several benefits that can be offered to potential coalition members. To start, alignment comes with connections with high-ranking politicians that can help build trust and favor the transfer of government funds (Bracco et al., 2015; Curto-Grau, Solé-Ollé and Sorribas-Navarro, 2018). These connections can then also help in career-building efforts and grant local politicians greater visibility in the media or during electoral campaigns. In turn, an aligned party might have better chances to gather a coalition than a proponent which is not aligned. Moreover, a coalition formed by an aligned proponent might be more likely to survive and last all the way through the term.

Although rigorous empirical evidence is lacking, anecdotes about the importance of political alignment in shaping government dynamics are common. In 2015, Italian president Sergio Mattarella deemed Paolo Savona unfit as potential minister for the economy and finance because Savona had previously expressed anti-euro views. Conversely, later in the same term, Mattarella appointed the former European Central Bank governor and vigorously pro-EU Mario Draghi as the Prime Minister of a large government coalition. Unaligned politicians also suffer on the revenues side. In 2022, the European commission called for an estimated €7.5 billion in European funds to be withheld from Hungary, led by euro-sceptic Viktor Orbán, shortly after Orbán's faction left the People's Party in the European Parliament.

This paper investigates how political alignment shapes i) the formation of governments, ii) the survival of these governments over time, and iii) the electoral fortunes of parties in the next election. We study this question in the context of a parliamentary democracy, Spain, focusing on the local (municipal) councils and their alignment with the regional government (*Comunidades Autónoma*). This context allows us to deploy quasi-experimental methods to obtain credible estimates of the effects of interest. We define a municipality to be aligned with the regional government if the coalition in power at the regional level also has the majority of seats in the local election. Our empirical approach is based on a regression-discontinuity design (RDD) with close elections (Lee, 2008; Folke, 2014). To implement this strategy, we construct a dataset with information on more than fifty thousand municipal legislatures in

the period 1983-2014.

We find that local parties aligned with the regional government enjoy several advantages over non-aligned parties. To start, we document that the top party – i.e., the one with the most votes – is much more likely to appoint the mayor when the coalition in power in the regional government wins the local elections. Correspondingly, we find a large negative effect of alignment on the probability that the runner-up appoints the mayor. Both of these results indicate that the aligned party has an advantage in the bargaining stage of coalition formation. Consistent with this interpretation, we find no effect of alignment in legislatures where one party wins the majority of municipal seats and, thus, can rule alone.

Aligned governments are also much more stable than unaligned ones. Estimates indicate that governments are 3 percentage points less likely to be unseated via no-confidence vote when they are aligned. Compared to the baseline probability of being unseated of about 5% around the threshold, this effect is large and close in magnitude to the impact of having one party less in the local council estimated in a similar setting by Carozzi, Cipullo and Repetto (2022). In terms of resource allocation from upper tiers of government, we find that the large increase in transfers found by, e.g., Curto-Grau, Solé-Ollé and Sorribas-Navarro (2018), arises entirely from terms where one party holds the majority – more than 50% – of seats. Coalition governments, instead, receive no additional transfers from alignment. These results suggest that upper tiers are willing to distribute resources along political lines only when the aligned local party has full control of the government.

Gains from alignment do not end with the current legislature, but persist. RDD estimates show that the top party obtains a 1.6 percentage points higher vote share in the subsequent elections when aligned, while alignment decreases the vote share of the runner-up party by 2.3 percentage points. When a government coalition is necessary, our results suggests that both the top party and the junior coalition partners benefit from alignment. When a single-party majority is present, alignment results in a transfer of votes from the non-aligned to the aligned party.

Taken together, our results indicate that political alignment strengthens the bargaining power of local parties, and does so substantially. This effect does *not* operate through providing parties with more resources via additional transfers – which only happens in terms where the mayor rules with a single-party majority. Instead, benefits from alignment for government formation and survival are exclusively present when the local party needs to form a coalition to rule, suggesting that political connections with upper tiers of government (or implicit bargaining norms) may be even more important than inter-governmental transfers in these settings.

The Spanish context presents several methodological advantages when it comes to studying the impact of partisan alignment on government formation and survival. In the first place, all government levels in Spain operate as autonomous parliamentary democracies. Because both who is appointed to lead the local government and whether that government survives is often shaped by coalition formation mechanics, there is room for upper tiers of government to play a substantial role in the process. Secondly, during this period Span-

ish politics was dominated by two large parties which have substantial presence at all government levels. Thus, there is ample space for partisan alignment happening across tiers. Finally, the large number of elected local governments operating under the same electoral system and the relatively high number of local governments unseated and replaced during the term allows us to employ a regression-discontinuity design to exploit exogenous variation in alignment status. These three factors have implications for the external validity of our findings. In particular, our results provide useful insights to think about government formation and stability in parliamentary democracies with well-established parties.

A large empirical literature has shown that favoritism in the allocation of government resources across locations is common in many settings. Arulampalam et al. (2009), Bracco et al. (2015), Curto-Grau, Solé-Ollé and Sorribas-Navarro (2018) and Brollo and Nannicini (2012) – among others – document large impacts of partisan alignment with upper tiers of government on budget transfers in different countries. Favoritism need not run along partisan lines only. Using cross-country data, Gehring and Schneider (2018) show that EU commissioners allocate more funds to their home countries. Ethnic favoritism has also been widely shown to be a relevant phenomenon (see, e.g., Hodler and Raschky, 2014; Burgess et al., 2015). We contribute to this literature by focusing our attention on the influence that other tiers of government may have on government formation and stability.

Previous work on the effect of political institutions on government stability studied the effects of the electoral system (e.g. Linz, 1994; Cheibub, Przeworski and Saiegh, 2004), or electoral rules such as vote share thresholds (Carozzi, Cipullo and Repetto, 2022) or the confidence vote (Huber, 1996). Our contribution to this literature lies in showing that political alignment has large effects at the government formation stage and also affects stability, especially for coalition governments.

2. Context and Data

2.1. Context

Spain has, as of 2011, 8,166 municipalities, covering all its territory. Municipalities are the smallest unit of government and take care of urban planning, upkeep of the transport network, provision of local services (e.g., sport facilities), waste disposal, and mass transit.

Municipal expenditures are predominantly financed by local taxes (the largest of which are a business tax and a property tax) and fiscal transfers from the national and regional governments and the EU. On average, taxes contribute to over half of all municipal revenues.

Municipalities are governed by a mayor (*alcalde*) and the municipal council (*pleno* or *concejo municipal*). In municipalities with more than 250 inhabitants, council members are directly elected every four years by citizens via a closed-list proportional system.[1] Council seats are assigned following a D'Hondt rule with a 5% entry threshold. The mayor is elected by the municipality council and can be replaced via a vote of no confidence by the majority of

[1]Municipalities with less than 250 inhabitants use an alternative open-list system and are excluded from the analysis.

council members during the term. More specifically, the law requires that the municipality council gathers after the election and chooses as the new mayor a candidate that receive the support of more than half of the councilors. If no candidates reach the required support, then a default rule applies and the most-voted party has the right to appoint the mayor. Moreover, Fujiwara and Sanz (2019) document the existence of a bargaining norm that usually favors the selection of the most-voted party's candidate as the new mayor even when the default rule does not apply. the Analogously, the president of regional governments (*presidente de la comunidad autonoma*) and the prime minister (*presidente del gobierno*) are elected by the regional council and by the congress, respectively, and can be replaced during the term with a vote of the majority of members of the legislative.

Spanish politics have traditionally been dominated by two large national parties, the center-left socialists *PSOE* and the center-right popular party *PP* (which ran as *Alianza Popular* in the 1980s). These two parties alone account for over 65% of all mayors in our sample. The third party running in all jurisdictions in this period is *IU*, a left-wing platform including the Spanish communist party. In addition, regional parties are often very important in their area of influence. For example, the center-right coalition *CiU* ruled over 50% of all municipalities in Catalonia between 1979 and 2014. About 85% of all mayors come from parties that also participate in elections at the national or regional level.[2] Smaller, local platforms with municipal scope do exist but they tend to have modest electoral results. The fact that most mayoralties are held by parties with national representation is, arguably, an advantage of the Spanish setting.

After the transition to democracy, municipal elections have been taking place every fourth year simultaneously across the country since 1979. Regional elections usually take place every fourth year, but anticipated ends to a term are possible if the council cannot form a new majority. The first round of regional elections took place between 1979 (Navarra) and 1985 (Galicia), with most regions holding their elections in 1983. For a combination of historical differences and recent variation in anticipated end of terms, regional elections are, in turn, still scheduled at different points in time in different regions.

2.2. Data

Our dataset consists of a panel of municipalities covering the period 1983-2014.[3] Our main data sources consist of electoral records, data on individual mayors and mayoral changes, municipal demographics (population, surface), and data on the composition of regional governments. Electoral outcomes in municipal and regional elections are obtained from the Ministry of Internal Affairs. We complement this dataset with information on mayors and their party of affiliation from the same source. Population data are taken from the residential registry.

[2]These parties are PSOE, PP, IU, UCD, CDS, CIU, ERC, PNV, BNG, PAR and PA.

[3]We end our sample before the 2015 municipal elections, where *Podemos* ran with different names in local elections, rendering party identification problematic. The 1979–1983 term is excluded since there were no incumbent regional governments at the time of 1979 municipal elections.

TABLE 1
DESCRIPTIVE STATISTICS

	Mean	Std. dev.	Min	Max
Panel A. General Information				
Population (x1000)	5.92	47.80	0.00	3273.05
Surface (km2)	224.52	245.61	0.09	1798.37
N. Terms	6.95	1.37	1.00	8.00
Regional Transfers (logs)	12.48	1.39	-4.61	19.15
Aligned Council 1/0	0.64	0.48	0.00	1.00
PP Mayor 1/0	0.41	0.49	0.00	1.00
PSOE Mayor 1/0	0.39	0.49	0.00	1.00
Municipal Vote Share of PSOE	0.40	0.17	0.00	0.99
Municipal Vote Share of PP	0.38	0.20	0.00	1.00
Mayor Unseated 1/0	0.02	0.15	0.00	1.00
Top Party Appoints Mayor 1/0	0.93	0.26	0.00	1.00
Runner-up Party Appoints Mayor 1/0	0.06	0.24	0.00	1.00
Observations	51116			

Notes: Population and regional transfers are term-level averages. Surface is in km^2. Number of terms counts the number of full terms we have for each municipality in the sample.

We only include municipalities with more than 250 inhabitants because of a different electoral system in small towns, leaving us with just under 6,000 municipalities in the original dataset. We impose additional sample restrictions based on missing data, or inconsistencies between sources, and lose 840 elections (2% of the remaining total), and exclude cases in which the party of the mayor cannot be identified, or only one party runs in the election. For each election in our sample, we have information on all party votes and seats received in the council, as well as blank and void votes. Our final sample relies on 51,116 observations.

Panel A of Table 1 provides municipal-level descriptive statistics for our sample. The average municipal population over the sample period was just under 6,000 inhabitants, with an average surface of 224 km^2. Panel B includes descriptives on local governments. *PP* and PSOE are the dominating parties in this period, and together account for 80 percent of all mayors. In 64% of municipalities, the municipality council is aligned – that is, parties forming the governing coalition at the regional level hold the majority of seats in the municipality council. The most-voted party appoints the mayor in the vast majority of cases (93%), while the runner-up does so in 6% of the terms.

3. Research Design and Results

3.1. Regression-discontinuity design

The goal of our analysis is to estimate the impact of partisan alignment with upper tiers of government on local government formation and survival. This can be empirically challenging because the alignment status of a municipality is likely to be correlated with unobservable features of the local electoral landscape, such as the strength of local parties or the competence of elected representatives. Reverse causality can also be an issue, particularly in the

case of large municipalities where municipal outcomes can affect regional or even national politics and, hence, determine alignment status indirectly.

To overcome these issues, we implement a regression-discontinuity design (RDD) using close elections (Lee and Lemieux, 2010; Curto-Grau, Solé-Ollé and Sorribas-Navarro, 2018). The RDD relies on comparing municipalities where the coalition in power at the regional level – henceforth, the regional bloc – just secured a majority in the municipal council with municipalities where it just failed to achieve that goal.

Define D_{irt} as an indicator taking value 1 if the parties in the coalition currently in the regional government of region r win a majority of seats in municipality i and election year t – i.e., if the combined seat share of those parties is larger than the combined seat share of parties in the regional opposition. In these cases, we say that the local council is aligned with the region. To measure the vote share distance to (or from) being aligned, we construct our running variable W_{irt} building on recent work by Folke (2014) and Fiva, Folke and Sørensen (2018) that adapts the close-elections RD method to proportional systems.[4]

Our baseline regression-discontinuity model is then as follows:

$$Y_{irt} = \alpha + \beta D_{irt} + \gamma_1 W_{irt} + \gamma_2 W_{irt} D_{irt} + \lambda_{rt} + \epsilon_{irt}, \tag{1}$$

where Y is the outcome of interest, e.g., an indicator equal to one if the mayor was unseated with a no-confidence vote. Coefficient β will therefore measure the impact of having a council majority aligned with the regional bloc on government formation and survival.[5] Our analysis relies on exploiting variation in alignment status around the threshold $W_{irt} = 0$, where elections were close. Hence, and as usual in RD designs, we are only able to estimate an average treatment effect for legislatures close to the threshold. Estimation is carried out using local linear regression within the Calonico, Cattaneo and Titiunik (2014)'s optimal bandwidth. Corresponding robust confidence interval are also reported. For robustness, we also document in Figure A.3 that our estimates are stable across a wide range of bandwidths.

To provide evidence of no manipulation of the running variable (see, e.g., Lee and Lemieux, 2010), we report its density histogram for our sample in Appendix Figure A.1. Standard statistical tests fail to detect a statistically significant discontinuity in the density at the zero threshold, with McCrary (2008) and Cattaneo, Jansson and Ma (2017)'s tests yielding p-values of 0.467 and 0.888, respectively. Appendix Table A.1 shows balancing of several covariates at the threshold. There are no meaningful differences in measures of the size of the municipality (population, surface, number of seats in the council), political variables (number of votes casts, number of parties with votes, *PSOE* and *PP* vote shares, etc.), or lagged outcomes. Taken together, these tests indicate that the assumptions required for a valid RDD are satisfied in this setting.

[4] In particular, we follow Curto-Grau, Solé-Ollé and Sorribas-Navarro (2018) and redistribute votes to (or from) the opposition bloc until a majority change takes place. In each case, the transfer of votes is carried out by apportioning votes based on initial party vote shares. Details on the calculation of the running variable can be found in Appendix B.

[5] λ_{rt} is the region-year (i.e., cutoff) fixed effect, whose inclusion assures we only compare aligned and unaligned councils exposed to the same incumbent regional government.

3.2. Aligned councils and government formation

Local politicians may use partisan connections with the region to improve their bargaining position in the council and, hence, their chances of forming a coalition and choosing the mayor. This increase in bargaining power may materialize as additional transfers (or a promise to receive them), or as a public endorsement by regional politicians. At the same time, other (unaligned) parties in the council may recognize they have a weaker claim at being the *formateur*, either because of implicit norms or because of agreements reached between parties at higher levels.

We start by testing whether aligned parties are more likely to appoint a mayor using our regression-discontinuity design. To do so, we need to show that an aligned party is more likely to appoint the mayor than a unaligned one with similar election results and, crucially, similar support in the council. We focus our attention on the top party, i.e., the most-voted party in a municipal election. The top party is generally also the party which obtains the largest number of seats in the council and, by law, has the right to appoint the mayor if other parties are unable to form a suitable coalition (see section 2). We compare the probability that the top party appoints the mayor when it is aligned and when it is not. Because of the RD design, municipalities close to the alignment threshold should be similar in all respects and only differ by alignment status. Importantly, the vote share and seat shares of the top party will, on average, be the same at either side of the threshold.

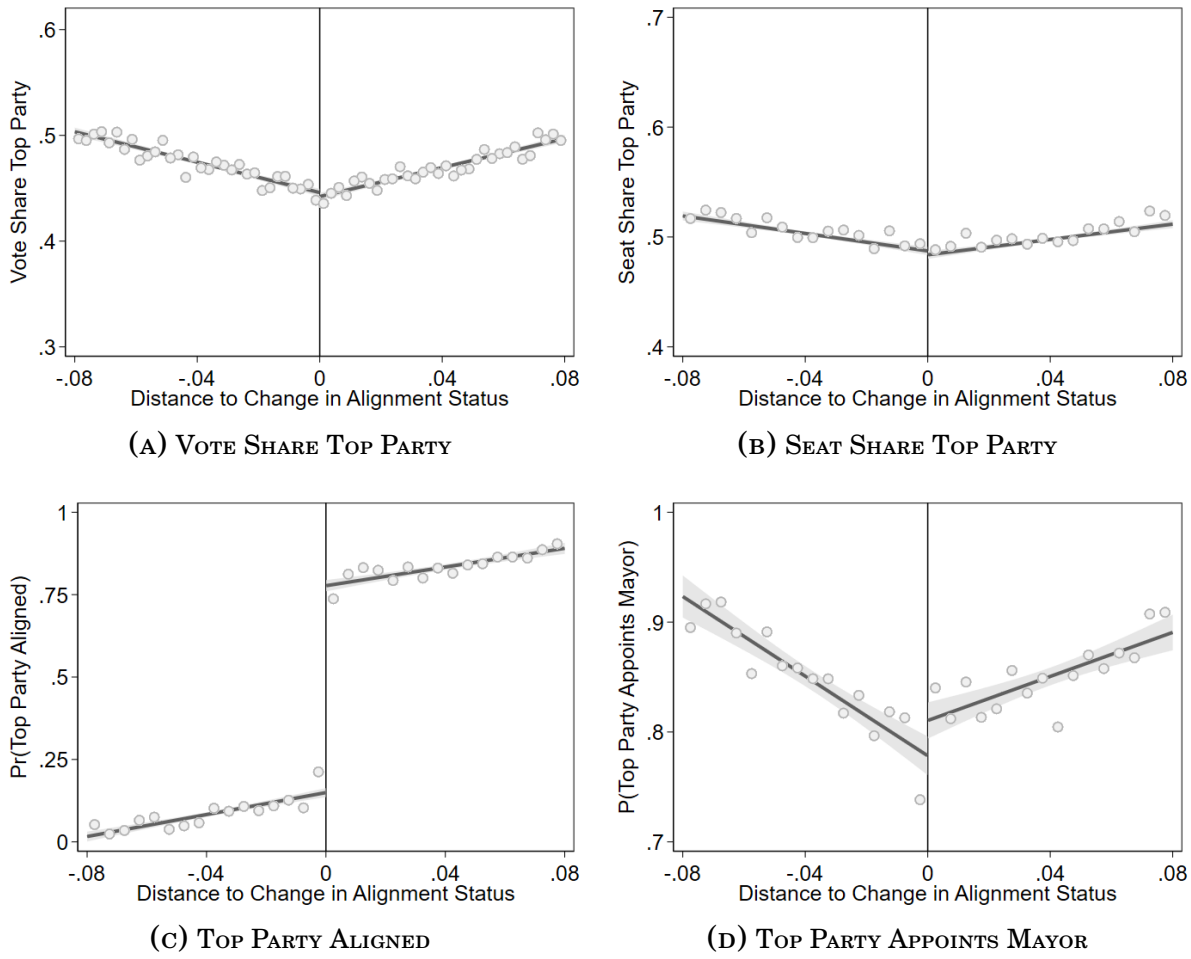
In Figure 1, we illustrate this exercise graphically by showing reduced-form relationships between the distance to council alignment W_{it} and four outcomes of interest. We report binned-scatter plots and estimated regression lines in each panel to illustrate the change in each outcome at the threshold. Panels A and B of Figure 1 show, respectively, that both the vote share and the seat share of the top party are smooth at the threshold. This is in line with the balancing checks reported in the Appendix and confirms the assumption that top parties at either side of the threshold have comparable electoral performance and seats in the council. Panel C shows a large jump in the probability that the top party is aligned with the regional bloc at the threshold. This is again not surprising and indicates that, in most cases, when the regional coalition wins the local election, the most-voted party belongs to it. Panel D of Figure 1 illustrates the main result of this section. We observe an appreciable jump in the probability that the top party appoints the mayor at the threshold. Taken together, the four panels indicate that, despite comparable electoral performance at the threshold, top parties of municipalities with aligned councils are more likely to be aligned and, critically, more likely to succeed in appointing the mayor.

In column 1 of Table 2 we estimate that the effect of alignment on the probability that the top party appoints the mayor is 3.4 percentage points, with a standard error of 1.3.[6] Hence, alignment appears to either facilitate the formation of a coalition for parties in the aligned bloc, or to make it harder for other parties.

[6]Estimates for the other discontinuities in Figure 1 are reported in Appendix Table A.2, and show no change in electoral performance at the threshold and a large increase in the probability that the top party is aligned with the regional government bloc.

FIGURE 1

ALIGNMENT AND GOVERNMENT FORMATION – REDUCED-FORM PLOTS



(A) VOTE SHARE TOP PARTY (B) SEAT SHARE TOP PARTY

(C) TOP PARTY ALIGNED (D) TOP PARTY APPOINTS MAYOR

Notes: The horizontal axis is the running variable in all figures. Observations to the left of the zero threshold are municipalities where the regional bloc coalition has the majority of seats in the municipal council. Correspondingly municipalities where the regional opposition has the majority are to the right of the threshold. The outcomes are: in the upper-left panel, the vote share of the most-voted party in the council; in the upper-right, its seats share; in the lower-left, the probability that it is aligned; and in the lower-right, an indicator equal to one when the most-voted party party appoints the mayor. Dots are averages in 0.025 percentage point bins of the running variable, and lines are linear regressions estimated on both sides of the threshold separately using the *lfitci* command in Stata. Shaded areas are the corresponding 95% confidence intervals.

This effect can be explained by the fact that when the top party belongs to the coalition in power in the region, it enjoys greater visibility, is directly connected to higher tiers of the administration, and has potentially more to offer to potential allies in the bargaining stage of coalition formation. Part of the effect could also be explained by the existence of an implicit norm that designates the aligned party as the one to appoint the mayor in dubious cases.

To investigate this result further, we decompose this effect by distinguishing between cases in which the top party obtains the absolute majority (>50%) of seats and cases in which it does not, and hence a coalition government is necessary. Corresponding estimates are provided in column 1 of Panels B and C and show that the change in the propensity to

appoint the mayor is driven entirely by municipal councils where no single party has the majority of seats. This is not surprising, as single-party majorities successfully appoint the mayor in virtually all cases. Hence, the effect detected in the full sample must be originating from municipal councils where bargaining is needed to form a coalition government.

Reproducing this analysis by focusing instead on the runner-up (the second-most-voted party) yields very similar insights. Results are illustrated in Appendix Figure A.2 and show that the electoral performance of the runner-up party is smooth at the threshold, both in terms of vote and seat shares; that the probability that the runner-up is aligned with the regional government *decreases* discontinuously at the threshold; and, finally, that the probability that it appoints the mayor drops discontinuously at the council alignment threshold. Unaligned runner-ups in municipal election find it much harder to appoint the mayor than otherwise comparable runner-ups that are aligned. This evidence is again consistent with the notion that partisan affinities with higher government tiers facilitate government formation.

3.3. Alignment affects government stability and transfers

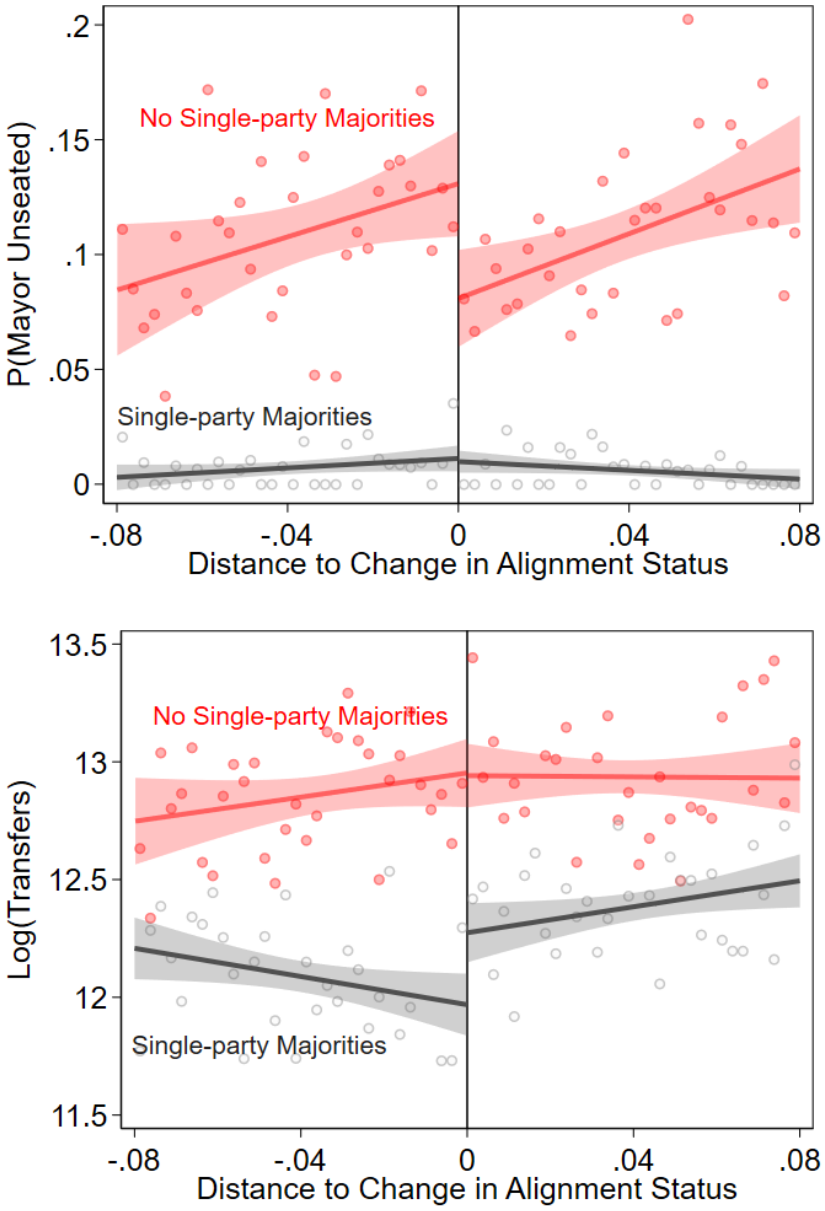
The benefits of alignment may go beyond the government formation stage and persist throughout the term. In particular, aligned local governments may be more stable and harder to unseat. To study this possibility, we use information on votes of no confidence at the municipality-term level. Successful votes of no confidence result in the incumbent mayor being ousted in favor of a new one from a different party, with a process similar to the replacement of prime ministers in parliamentary democracies. The successful approval of a no-confidence vote thus constitutes a good indicator of the government's inability to maintain the support of the council throughout the term.

The impact of council alignment with the regional bloc on government survival is illustrated in the top panel of Figure 2. We present results separately for councils where a party has the absolute majority of seats and councils where no party has it. As expected, single-party majorities are virtually never unseated, and whether they are aligned or not has no effect on stability. Instead, we document a large discontinuity at the threshold in the probability that coalition governments are unseated. In particular, aligned councils are substantially less likely to pass a successful vote of no confidence against the appointed mayor than unaligned councils.

Formal estimates of the effect on the probability of unseating the incumbent mayor are reported in column 2 of Table 2. In Panel A, we show that aligned councils are 3.1 percentage points less likely to unseat the mayor. This is a large effect, as the baseline probability of unseating the mayor is about 5% in the sample, and indicates that aligned councils are more likely to support appointed mayors all the way to the next election. Panels B and C show that the effect of alignment on government survival is driven entirely by councils in which no party enjoys a majority of seats, consistently with the findings in Figure 2.[7]

[7]Table A.3 in the Appendix reports the 2SLS coefficients obtained from instrumenting an indicator equal to 1 if the mayor belongs to one of the parties in the regional coalition government with our *Aligned Council*

FIGURE 2
COUNCIL ALIGNMENT, GOVERNMENT STABILITY AND RESOURCES – REDUCED-FORM PLOTS



Notes: The horizontal axis is the running variable in all figures. Observations to the left of the zero threshold are municipalities where the regional bloc coalition has the majority of seats in the municipal council. Correspondingly, to the right of the threshold are municipalities where the regional opposition has the majority. In the upper panel, the outcome is an indicator for the mayor being unseated and replaced during the term. In the lower panel, the outcome is the logarithm of the average capital transfers received over the term. Dots are averages in 0.025 percentage point bins of the running variable, and lines are linear regressions estimated on both sides of the threshold separately using the *lfitci* command. Shaded areas are the corresponding 95% confidence intervals.

indicator, consistently with Curto-Grau, Solé-Ollé and Sorribas-Navarro (2018). Table A.3 also documents that the estimates are robust to the introduction of additional control variables.

What is the origin of this effect of alignment on government stability? A natural explanation is that political alignment affects the stream of revenues from upper-tiers of government. In fact, the presence of a large, positive alignment effect on transfers has been documented for Spain (Curto-Grau, Solé-Ollé and Sorribas-Navarro, 2018) and several other countries (see, e.g., Bracco et al., 2015).

In the bottom panel of Figure 2, we show the effect of alignment on the (log of) regional transfers received by the municipality in the term. Interestingly, we observe that aligned local governments indeed receive more transfers from the region, but only if there is a single-party majority in power.[8] Collectively, these results confirm that regional governments are more willing to distribute resources to aligned mayors, but only where these mayors are appointed by a party which has control of the council. Given that single-party majorities are stable regardless of alignment status, transfers alone cannot explain the effect of alignment status on government survival.[9]

While aligned mayors in coalition governments do not receive more transfers, they nonetheless appear to benefit from the connection with the upper tier through an effect on stability. This effect may be due to better coordination with the regional government – providing a better technology for coalition formation –, fear of retaliation on the newly appointed government, or other factors.

3.4. Electoral effects of alignment

Being aligned with the regional government may also yield an advantage in the following elections, for at least two reasons. First, aligned local governments that receive extra transfers may provide more public goods and, as a result, be rewarded by voters in the next election. Second, aligned governments are more likely to survive until the end of the term – and, hence, to benefit from the incumbency advantage – than unaligned ones.

To study the impact of alignment on future electoral returns, in Table 3 we use as outcomes the vote share of the top party and the runner-up in the next election. Recall that council alignment increases the probability that the top party is aligned and reduces this probability for the runner-up (see e.g., Figure 1). Therefore, by focusing on these two parties, we can evaluate whether aligned parties at the time of one election perform better on average in the next election.

The top party reaps significant electoral gains from being aligned, with effects ranging from 1.2 to 2 percentage points. At the same time, the runner-up performs substantially worse in the next election, with vote shares lowered by 1.9-2.8 percentage points. These results indicate that partisan affinities with upper levels of government do not only affect the outlook of local governments in the short-run, but translate into better electoral results in future elections. In this way, the control of regional (and potentially state) governments can be instrumental in promoting the success of parties locally.

[8] The corresponding reduced-form regression estimates are reported in column 3 of Table 2

[9] Notice that data on regional transfers to each municipality are only available since the 1999-2003 term.

Notice that results in Table 3 are similar both for municipalities with a single-party majority in the council and those where the control of the council is contested. More specifically, our results suggest that there is a transfer of votes between the top party and the runner-up when the former is aligned and a single-party majority is feasible, while the runner-up loses votes due to lacking alignment to the advantage of either the top party or junior coalition partners when a coalition government is necessary. An implication of this analogy in light of the results in the bottom panel of Figure 2 is that the provision of budgetary resources alone cannot explain the long-term effect of alignment on electoral outcomes.

4. Discussion and conclusions

In this paper we studied the effect of political alignment on both government formation and stability. Consistently with the hypothesis that alignment endows the local government with additional bargaining resources and connections, we find that, in close elections, just aligned local parties are much more likely to form the government than those that just non-aligned. Governments headed by aligned mayors are also substantially more stable. The benefits of alignment are not limited to the current term but persist, with the top party receiving an electoral boost in the next elections at the expense of the second most-voted party, who suffers large electoral losses. Overall, our results suggest that political alignment has important and long-lasting effects that go beyond resource allocation.

Our results are relevant to understand differences in the geographic polarization of voting preferences (Fiorina, Abrams et al., 2008). Previous work has emphasized the potential role of sorting in shaping apparent patterns of increased spatial polarization in voting preferences – occasionally referred to as the "big sort" in the political science literature (Bishop, 2009; Brown and Enos, 2021; Maxwell, 2019). Our results indicate an alternative mechanism can drive the spatial seggregation of electoral preferences: control of intermediate levels of government, such as regions or states, can provide partisan support for aligned local governments contributing both to their appointment, survival and success in subsequent elections.

Classic models of political selection emphasize the role of voter preferences – think median voter theorem – and candidate characteristics in shaping who wins and who loses elections. An important implication of our findings is that local political outcomes are directly affected, to a substantial degree, by the identity of governments in other jurisdictions. This can have dynamic consequences, as circumstantial electoral victories at a level of government can influence long-term outcomes at another even in the absence of short term changes in voting preferences.

TABLE 2
GOVERNMENT FORMATION, STABILITY, AND TRANSFERS – REDUCED-FORM ESTIMATES

	(1)	(2)	(3)
Panel A. Full Sample			
	Top Party Mayor	Mayor Unseated	Log(Transfers)
Aligned Council	0.034***	-0.031***	0.149**
	(0.013)	(0.010)	(0.066)
Robust 95% c.i.	[0.010; 0.067]	[-0.057; -0.013]	[-0.011; 0.281]
Bandwidth	0.083	0.050	0.072
Mean dep. var.	0.851	0.053	12.510
Observations	14013	8545	5897
Panel B. No Single-party majority			
	Top Party Mayor	Mayor Unseated	Log(Transfers)
Aligned Council	0.113***	-0.054***	0.036
	(0.034)	(0.021)	(0.103)
Robust 95% c.i.	[0.053; 0.197]	[-0.108; -0.015]	[-0.191; 0.272]
Bandwidth	0.039	0.044	0.057
Mean dep. var.	0.825	0.054	12.510
Observations	3136	3517	2029
Panel C. Single-party majority			
	Top Party Mayor	Mayor Unseated	Log(Transfers)
Aligned Council	0.003	-0.003	0.326***
	(0.006)	(0.003)	(0.082)
Robust 95% c.i.	[-0.011; 0.022]	[-0.011; 0.005]	[0.120; 0.481]
Bandwidth	0.076	0.112	0.071
Mean dep. var.	0.847	0.044	12.511
Observations	7473	11257	3390

Notes: Reduced-form estimates, from equation 1, of the effect of council alignment on the probability that the top party appoints the mayor (column 1); that the mayor is unseated during the term with a no-confidence vote (column 2); and the log of regional capital transfers (column 3). In Panel A we use the full sample; in Panel B, we restrict to terms where no party has the absolute majority of seats; in Panel C, we restrict to terms where one party has the absolute majority of seats. The optimal bandwidth is calculated using the CCT criterion. Robust bias-corrected confidence interval calculated using Calonico, Cattaneo and Titiunik (2014)'s method are also reported. Standard errors clustered at the municipality level. *, **, and *** represent 10%, 5%, and 1% significance levels, respectively.

TABLE 3
ELECTORAL RETURNS OF ALIGNMENT – REDUCED-FORM ESTIMATES

	(1)	(2)
Panel A. Full Sample		
	Top Party Vote Share (t+1)	Runner-up Party Vote Share(t+1)
Aligned Council	0.016***	-0.023***
	(0.005)	(0.005)
Robust 95% c.i.	[0.004; 0.026]	[-0.034; -0.011]
Bandwidth	0.077	0.080
Mean dep. var.	0.462	0.377
Observations	10627	10967
Panel B. No Single-party majority		
	Top Party Vote Share (t+1)	Runner-up Party Vote Share (t+1)
Aligned Council	0.012	-0.028***
	(0.008)	(0.009)
Robust 95% c.i.	[-0.007; 0.029]	[-0.048; -0.009]
Bandwidth	0.053	0.051
Mean dep. var.	0.457	0.384
Observations	3325	3269
Panel C. Single-party majority		
	Top Party Vote Share (t+1)	Runner-up Party Vote Share (t+1)
Aligned Council	0.020***	-0.019***
	(0.007)	(0.006)
Robust 95% c.i.	[0.003; 0.033]	[-0.033; -0.004]
Bandwidth	0.072	0.090
Mean dep. var.	0.461	0.374
Observations	5816	7449

Notes: Reduced-form estimates, from equation 1, of the effect of council alignment on the vote share of the top party (col. 1) and the runner-up (col.2). In Panel A we use the full sample; in Panel B, we restrict to terms where no party has the majority of seats; in Panel C, we restrict to terms where one party has the majority of seats. Controls surface and logged population) and region-election year FE are always included. The optimal bandwidth is calculated using the CCT criterion. Robust bias-corrected confidence interval calculated using Calonico, Cattaneo and Titiunik (2014)'s method are also reported. Standard errors clustered at the municipality level. *, **, and *** represent 10%, 5%, and 1% significance levels, respectively.

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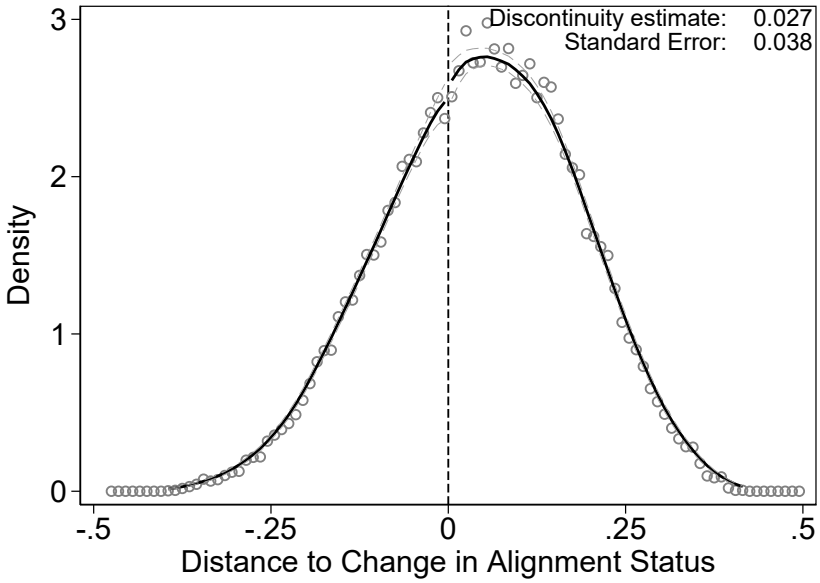
Appendices for Online Publication

A. Additional empirical results

FIGURE A.1

DENSITY OF THE RUNNING VARIABLE AROUND THE THRESHOLD



Notes: Estimated density of the running variable. Dots represent sample averages within 1 percentage point bins of the running variable. A McCrary (2008) test of the null hypothesis of no discontinuous jump in the density at the threshold fails to reject the null as reported in the figure. A Cattaneo, Jansson and Ma (2017) test, instead, yields a p-value of 0.89.

TABLE A.1
COVARIATE BALANCING CHECKS – REDUCED-FORM ESTIMATES

	(1) Pop.	(2) Surface	(3) Council size	(4) S.P. Maj.
Aligned Council	-0.061	0.015	-0.145	0.016
	(0.061)	(0.040)	(0.221)	(0.020)
Robust 95% c.i.	[-0.214; 0.050]	[-0.073; 0.105]	[-0.706; 0.238]	[-0.026; 0.066]
Bandwidth	0.060	0.078	0.051	0.061
Mean dep. var.	7.656	4.991	10.851	0.557
Observations	10223	13044	8776	10379
	V.s. Reg. Maj.	V.s. Reg. Opp.	V.s. Top Party (t-1)	Mayor Unseated (t-1)
Aligned Council	-0.001	0.003	0.022	-0.012*
	(0.003)	(0.003)	(0.020)	(0.007)
Robust 95% c.i.	[-0.008; 0.008]	[-0.005; 0.011]	[-0.024; 0.070]	[-0.028; 0.003]
Bandwidth	0.053	0.054	0.063	0.069
Mean dep. var.	0.432	0.427	0.584	0.033
Observations	9125	9303	9503	10904
	S.P. Maj. t-1	Aligned t-1	N. Parties	Valid Votes
Aligned Council	-0.00	0.00	-0.07	-823.77
	(0.016)	(0.019)	(0.069)	(1055.161)
Robust 95% c.i.	[-0.035; 0.036]	[-0.046; 0.034]	[-0.240; 0.062]	[-3373.708; 1300.004]
Bandwidth	0.091	0.066	0.066	0.035
Mean dep. var.	0.677	0.517	3.557	4840.429
Observations	15004	10396	11334	6195
	Votes Blank	Turnout	Vote Share PSOE	Vote Share PP
Aligned Council	-20.28	-0.00	-0.00	0.00
	(18.110)	(0.003)	(0.005)	(0.004)
Robust 95% c.i.	[-63.462; 16.719]	[-0.008; 0.007]	[-0.010; 0.011]	[-0.006; 0.012]
Bandwidth	0.057	0.067	0.040	0.055
Mean dep. var.	87.944	0.758	0.401	0.395
Observations	9788	11510	6892	8005

Notes: Reduced-form estimates for different covariates. Population and surface are in logarithms. Council size is the number of available seat in the municipality. Single-party majority is an indicator equal to one if one party has more than half the seats. Vote share regional majority (opposition) corresponds to the aggregated municipal election vote share of the coalition in power (in the opposition) at the regional level. Vote share of top (second) party is the vote share of the most-voted (second most-voted) party in the municipal election. Top party mayor $t-1$ is an indicator for the most-voted party appointing the mayor in the previous term. Mayor unseated $t-1$ is an indicator for the mayor being unseated in the previous term. Similarly, aligned $t-1$ is an indicator the the municipality being aligned in the previous term. Number of parties counts the number of parties that ran and obtained votes in the municipal election. Valid votes is the number of votes cast (including blanks). Blank votes is the numbers of blank ballots. Municipal turnout is defined as total number of votes over eligible voters. Vote share of *PSOE* (*PP*) refers to the municipal election. Estimation by local linear regression using as bandwidth the CCT optimal bandwidth, estimated in each regression separately. No controls or election-year fixed effects are included. Standard errors are clustered at the municipality level. *, **, and *** represent 10%, 5%, and 1% significance levels, respectively.

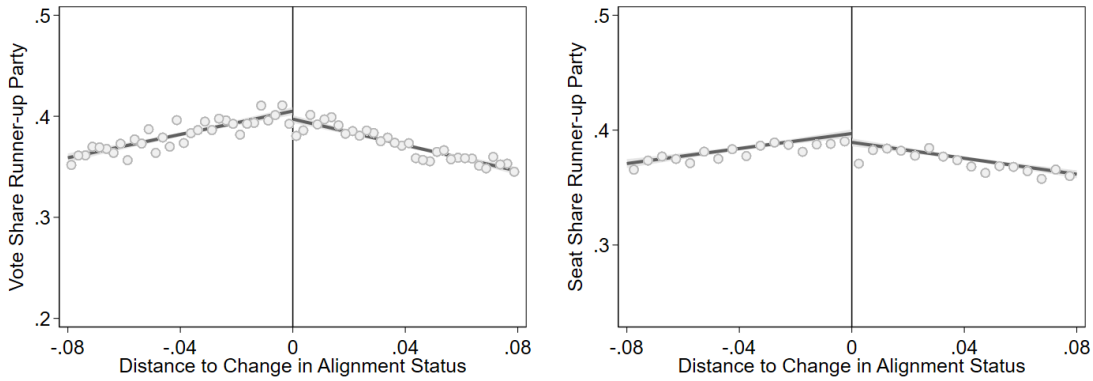
Table A.2
Top Party Performance – Reduced-form estimates

	(1) Vote Share Top Party	(2) Seat Share Top Party	(3) Aligned Top Party
Aligned Council	-0.002	-0.001	0.885***
	(0.002)	(0.002)	(0.011)
Robust 95% c.i.	[-0.006; 0.003]	[-0.006; 0.003]	[0.853; 0.904]
Bandwidth	0.040	0.038	0.069
Mean dep. var.	0.458	0.497	0.495
Observations	3668	3510	6700

Notes: Reduced-form estimates, from equation 1, of the effect of council alignment on the probability that the top party appoints the mayor (column 1); that the mayor is unseated during the term with a no-confidence vote (column 2); and the log of regional capital transfers (column 3). In Panel A we use the full sample; in Panel B, we restrict to terms where no party has the absolute majority of seats; in Panel C, we restrict to terms where one party has the absolute majority of seats. The optimal bandwidth is calculated using the CCT criterion. Standard errors clustered at the municipality level. *, **, and *** represent 10%, 5%, and 1% significance levels, respectively.

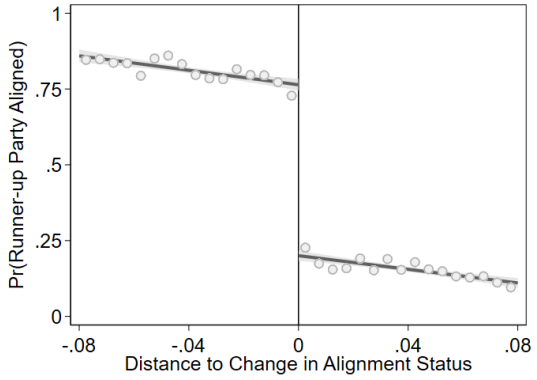
Figure A.2

Alignment and Government Formation: Runner-up Party – Reduced-form plots

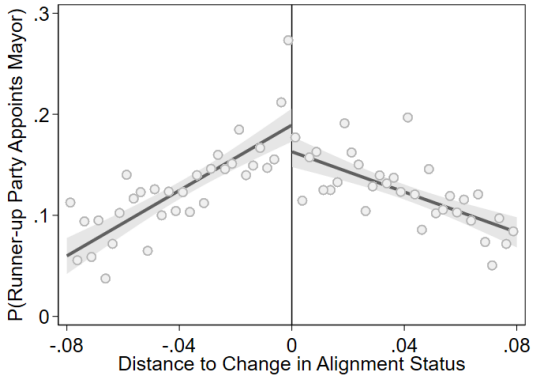


(a) Vote Share Runner-up Party

(b) Seat Share Runner-up Party



(c) Runner-up Party Aligned



(d) Runner-up Party Appoints Mayor

Notes: The horizontal axis is the running variable in all figures. Observations to the left of the zero threshold are municipalities where the regional bloc coalition has the majority of seats in the municipal council. Correspondingly municipalities where the regional opposition has the majority are to the right of the threshold. The outcome in the top panel is an indicator equal to one when the most-voted party appoints the mayor. The bottom panel shows the same variable but for the second most-voted party. Dots are averages in 0.1 percentage point bins of the running variable, and lines are linear regressions estimated on both sides of the threshold separately using the *lfitci* command in Stata. Shaded areas are the corresponding 95% confidence intervals.

TABLE A.3

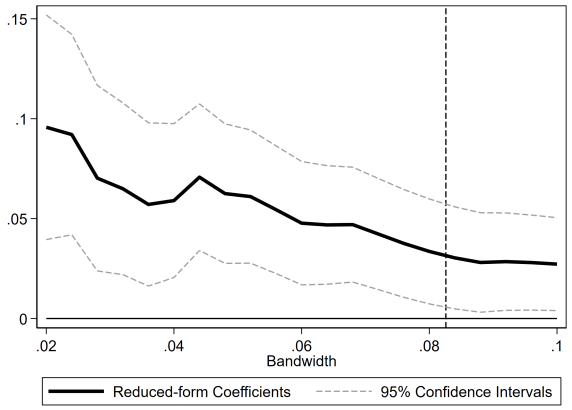
GOVERNMENT STABILITY AND TRANSFERS – 2SLS ESTIMATES

	(1)	(2)	(3)	(4)
Panel A. Full sample				
	Mayor Unseated		Log(Transfers)	
Aligned Council	-0.047***	-0.047***	0.290**	0.269***
	(0.017)	(0.017)	(0.121)	(0.076)
Robust 95% c.i.	[-0.104; -0.023]	[-0.104; -0.023]	[0.020; 0.538]	[0.103; 0.446]
Bandwidth	0.059	0.060	0.061	0.065
Mean dep. var.	0.053	0.052	12.511	12.509
Observations	10179	10091	5007	
Controls	N	Y	N	Y
Panel B. No Single-party majority				
	Mayor Unseated		Log(Transfers)	
Aligned Council	-0.217**	-0.268***	0.138	0.293
	(0.094)	(0.095)	(0.466)	(0.326)
Robust 95% c.i.	[-0.451; -0.045]	[-0.516; -0.092]	[-0.905; 1.198]	[-0.396; 1.056]
Bandwidth	0.041	0.056	0.057	0.055
Mean dep. var.	0.054	0.053	12.509	12.513
Observations	3280	4292	2035	
Controls	N	Y	N	Y
Panel C. Single-party majority				
	Mayor Unseated		Log(Transfers)	
Aligned Council	-0.003	-0.003	0.321***	0.253***
	(0.004)	(0.004)	(0.077)	(0.048)
Robust 95% c.i.	[-0.014; 0.007]	[-0.014; 0.006]	[0.108; 0.465]	[0.133; 0.363]
Bandwidth	0.097	0.101	0.100	0.120
Mean dep. var.	0.046	0.046	12.523	12.514
Observations	9706	10028	4939	
Controls	N	Y	N	Y

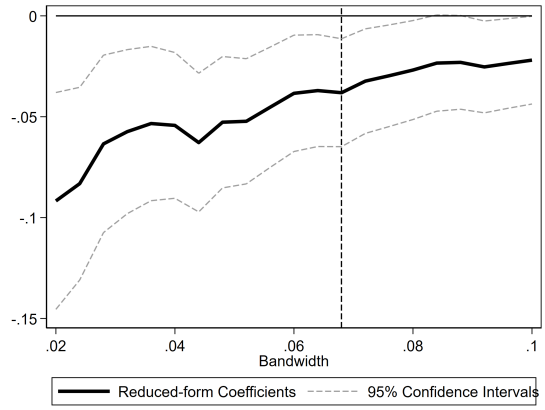
Notes: 2SLS estimates, from equation 1, of the effect of alignment on the probability that the mayor is unseated during the term with a no-confidence vote (cols. 1-2) and the log of regional capital transfers (cols. 3-4). In Panel A we use the full sample; in Panel B, we restrict to terms where no party has the majority of seats; in Panel C, we restrict to terms where one party has the majority of seats. Controls and FE are included as indicated in each column. Controls: surface and population (in logs). FE: electoral year-region fixed effects. The optimal bandwidth is calculated using the CCT criterion. Standard errors clustered at the municipality level. *, **, and *** represent 10%, 5%, and 1% significance levels, respectively.

Figure A.3

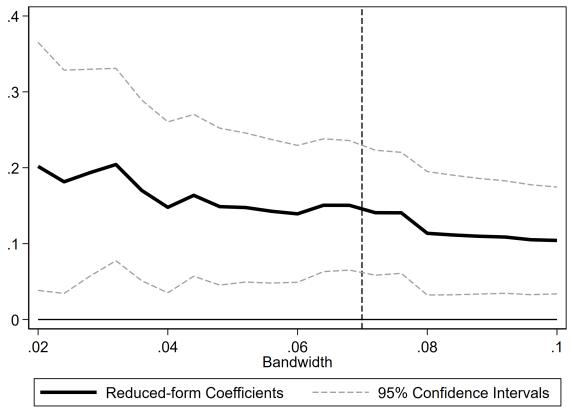
Bandwidth choice robustness – Reduced-form estimates



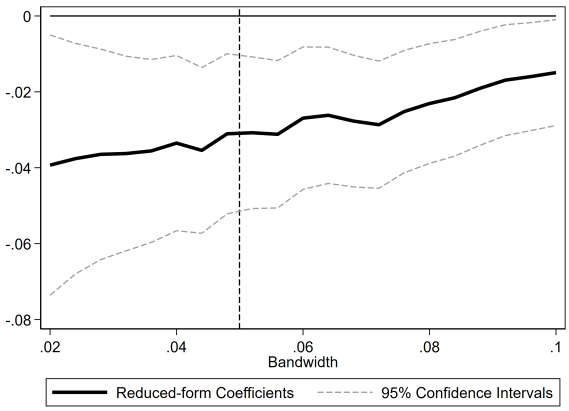
(a) Top Party Appoints Mayor



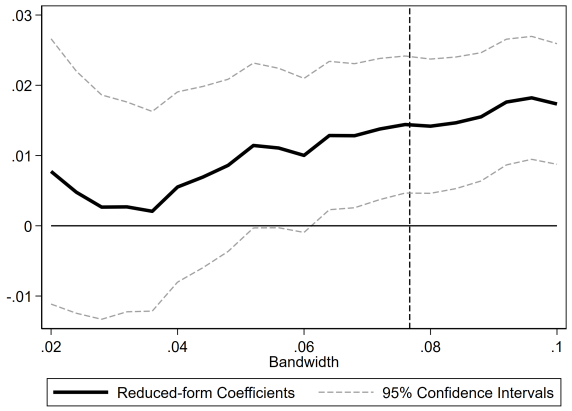
(b) Runner-up Party Appoints Mayor



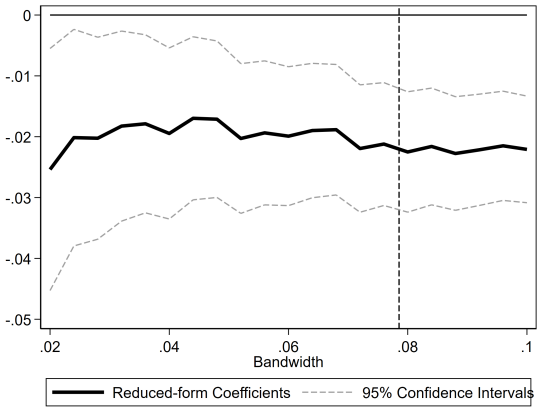
(c) Log(Transfers)



(d) Mayor Unseated



(e) Vote Share Top Party (t+1)



(f) Vote Share Runner-up Party (t+1)

Notes: The horizontal axes correspond to the bandwidths used to generate each estimate. Vertical axes correspond to the value of each of the effects of interest. Solid lines correspond to reduced-form estimates for each bandwidth, whereas dashed lines show 95% confidence intervals in each case.

B. Details on the calculation of the running variables

This section clarifies how we calculate the running variable. We follow Folke (2014) and Fiva, Folke and Sørensen (2018)'s recommendation that, when applying the close-elections approach to proportional representation systems, the running variable should take into account the overall votes distribution across all parties.

First, for each municipality, we calculate the aggregate vote-share of the coalition in power at the regional level (the *regional coalition bloc*) in the year when the municipal election takes place. This aggregate share is simply the sum of all vote-shares of parties belonging to the bloc. We proceed similarly by aggregating over the *regional opposition bloc*, defined as the group of all other parties with representation in the regional council belonging to the opposition. We define an indicator D equal to 1 if the regional coalition bloc has either the majority of seats in the municipality, or ties in seats with the opposition but has more votes, and zero otherwise.

We then apply an iterative method in which we add votes to the regional coalition bloc (if it does not have the majority of seats in council) or subtract them (if it does) until a majority change is achieved. If the regional coalition bloc has the majority of seats in the local council, start by subtracting votes to the regional bloc in a small increment of half a percentage point of the total votes cast. These votes are allocated to the parties in council belonging to the opposition block proportionally to their seat-shares. Then, re-calculate the seats allocation. If, with this new allocation of votes, the majority in the council does not change, subtract an additional half of a percentage point until there is a majority change, defined as a change in which bloc has the most seats or, in case of a tie in seats, the most votes.

When we observe a majority change, in order to gain precision, we go back to the last increment before the change and subtract, instead of half a percentage point, .1% of votes, until the majority changes again. Then, we repeat the operation in finer increments of .01% and, finally, .001%. The final running variable, therefore, is approximated to jumps in vote-share of .001%.

We calculate the original seat distribution, as well as the simulated seat distributions using STATA 17 with the user-written command *v2seats*, to which we input the details of the Spanish municipalities electoral system in terms of admission threshold and the D'Hondt method.

Given that often the regional elections take place at a different date than the municipal ones, for example they may happen during the municipal term, our running variable correctly identifies elections in which the regional coalition bloc just won (or lost) at the municipal level only up until the new regional election takes place. For this reason, when defining our indicator for the mayor being unseated during the term, we code as zeros (instead of ones) cases of unseating taking place after the date of the new regional election.