The Ban of Batasuna: effects on local government spending

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Abstract

This paper investigates the effect of government fragmentation on government spending using data on political and fiscal outcomes of municipalities in the Spanish region of the Basque Country, over four electoral terms. To identify a causal effect, I use a natural experiment given by the ban of Batasuna, a political party which was banned due to its tolerance of terrorism. I exploit the heterogeneity of the effect of the ban across municipalities to construct instruments for absolute majorities based on the mechanical changes in absolute majorities due to the ban. I find that absolute majorities reduce current expenditures, mostly by reducing spending on public goods and services.

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1 Introduction

The public finances of Southern European countries have played a central role in the recent economic crisis. A particularly important issue is the role of the political environment in shaping the incentives for politicians to spend, incur budget deficits or accumulate debt. This question is relevant for the choice and design of electoral rules. Proportional electoral rules lead to multi-party systems, as opposed to plurality or majoritarian electoral rules, which lead to two party systems.[1] This means that one of the main differences between electoral rules is the incidence of coalition governments. The aim of this paper is to answer the question of whether coalitions and single party governments differ with regards to economic policy.

Coalition governments have incentives to spend more relative to single party governments because of a common pool problem. Coalition parties can target some spending to their constituencies to obtain electoral benefits, but the cost of these expenditures is partially shared with the coalition partner through a lower provision of other public goods, higher taxation or borrowing. This would lead coalition governments to overspend.[2] On the other hand, not all spending is divisible and certain spending projects require coalition parties to reach agreements. Failure to reach such agreements could lead to non-implementation of such projects, which could lead coalition governments to spend the same or even less than single-party governments.[3]

Ultimately, the existence and the magnitude of the effect of government fragmentation on policy outcomes becomes an empirical question. However, obtaining evidence on the causal effect of government fragmentation on policy outcomes is complicated, since coalitions and single party governments do not only differ in terms of executive fragmentation. In particular, within proportional systems, absolute majorities are driven by electoral success. Electoral success is not randomly assigned and it is likely to be related to a number of unobservables which could have an effect on policy outcomes, such as politicians' quality or education, preferences for spending or expected fiscal capacities.

[1] Under plurality or majoritarian rules, ideologically close parties have incentives to merge since what matters is being the most voted party, and voters have incentives to vote for larger parties. This effect leads to two party competition (Duverger's law, Duverger (1954), Lijphart and Aitkin (1994)).

[2] For a formal characterization of the common-pool problem for coalition governments see Bawn and Rosenbluth (2006) and Persson *et al.* (2007) and more generally Weingast *et al.* (1981). Primo and Snyder (2008) further clarify the conditions under which the common-pool problem would arise.

[3] Blais *et al.* (2010), Freier and Odendahl (2012).

To address these identification problems, I use a quasi-experiment given by the ban of Batasuna, a political party in the Spanish region of the Basque Country. This party was outlawed in 2003 due to its tolerance of terrorism, but this was not the outcome of bargaining among the existing political agents at the local or regional level, who were mostly against it, but a process led by the Spanish Government and enforced by the judicial authorities. The ban was an important shock for Basque local politics, since, at the time of the ban, Batasuna held more than 20% of the seats in Basque city councils.[4] To exploit this natural experiment, I use data on municipal fiscal and political outcomes over four electoral terms, two before the ban and two after the ban.

The effect of the ban of a political party on political outcomes can be split into two components: a mechanical effect and a psychological effect. Mechanical effects arise because after the ban the votes for Batasuna no longer translate into seats.[5] Psychological effects arise due to changes in voters' or parties' behavior in anticipation of mechanical effects. I estimate the total, mechanical and psychological effect of the ban of Batasuna on a number of political outcomes, such as the seat shares of the main national and regional political parties, absolute majorities or political competition, using the approach proposed by Fiva and Folke (2014) based on the construction of counterfactual election outcomes under alternative electoral rules. The results show that while the ban did not have any significant psychological effects, its mechanical effects led to a political environment characterised by a larger fraction of absolute majorities, less political competition and less leftist representation.

To identify the effects of absolute majorities on local government spending, I use the municipality-specific mechanical changes in absolute majorities due to the ban as an instrument for absolute majorities. Identification comes from heterogeneity in within-municipality mechanical changes in absolute majorities due to the ban, and is conditional on the municipality-specific weight that Batasuna had before the ban (i.e. it is conditional on the mechanical change in the seat share of Batasuna).

I find that absolute majorities spend €70 per-capita less on current outlays, which is around 8% of the average yearly current spending or 5% of the average yearly total spending. This

[4] As in the rest of Spain, in the Basque Country the seats of municipal city councils are allocated using the d'Hondt Method, a proportional rule for closed lists

[5] Voters could still "vote" for that party but such votes would just be counted as null (spoilt) votes

effect is driven by a significant negative effect of €60 per-capita on spending on public goods and services, which includes the most targetable types of spending at the local level, such as health care, care for the elderly, and cultural or sports activities. Moreover, these effects are larger in election years. On the other hand, the estimated effect of absolute majorities on the remaining component of spending, capital spending, is close to zero. However, this estimate is very imprecise, such that the effect of absolute majorities on total spending, which is in magnitude very close to the effect on current spending, is not statistically significant. On average, revenues decrease together with expenditures, leaving the fiscal balance unaffected. These results provide some support to the common pool hypothesis. I show that the results are not driven by differential pre-ban trends and that they hold across a number of sub-samples.

This paper extends the existing empirical literature on the effects of government fragmentation on fiscal policy by providing causal estimates of the effects of government fragmentation on public spending. The existing literature has mostly shown correlations that are only indicative of causal relationships, like Bawn and Rosenbluth (2006) who find that government fragmentation is positively correlated with total government outlays as a percent of GDP.[6] Persson *et al.* (2007) use the electoral rule (plurality vs. proportional) as an instrument for the incidence of coalition governments across countries, following their theoretical model which suggests that electoral rules affect spending only through this channel, and also find support for the common pool hypothesis. However, a potential problem of their empirical strategy is that countries self-select into electoral rules.

Other papers have relied on within-country variation, with mixed support for the common pool hypothesis. Solé-Ollé (2006b) uses data on Spanish municipalities and finds that coalition governments are correlated with larger government spending. The results of this paper are qualitatively similar to those in Solé-Ollé (2006b), although larger in magnitude, and make a contribution by providing causal estimates. Schaltegger and Feld (2009) use panel data on Swiss cantons and do not find any significant relationship between the incidence of coalition governments and government size. Baskaran (2013) performs a similar analysis on German States, reaching similar conclusions. In addition to fixed effects regressions he provides instrumental

[6]Other cross-country studies include Woo (2003), Perotti and Kontopoulos (2002) and Kontopoulos and Perotti (1999)

variables estimates using the number of parties in the state parliament as an instrument for coalition governments. One potential problem with this empirical strategy is that the number of parties in the state parliament could be driven by increasing spending expectations and could affect public spending through channels other than government fragmentation, such as the probability of re-election.

Some recent working papers combine within-country variation with exogenous sources of variation. Freier and Odendahl (2012) and Garmann (2012) use close elections in Regression Discontinuity Designs (RDDs) and do not find support for the common pool hypothesis. A contribution of this paper with respect to the latter is that it identifies the causal effect of absolute majorities over a subpopulation which is different from that in an RDD with close elections.[7] This is because in the quasi-experiment that I exploit, the municipalities which are mechanically pushed by the ban of Batasuna towards an absolute majority would have had more balanced coalitions (i.e. with the largest party not necessarily holding almost 50% of the seats, as in a close election). This is relevant since the common pool mechanism is based on every coalition party having some spending discretion, and thus one could expect more balanced coalitions to have larger common pool problems compared to the case where one party holds almost 50% of the seats and just needs a small support to form a government.

This paper also contributes to the recent empirical literature which aims at disentangling the effects of electoral rules into mechanical and psychological effects by disentangling the effects of the ban of a political party into its mechanical and psychological counterparts.[8] While the previous contributions in the literature found significant psychological effects of changes in electoral rules, I find that the effects of the ban of Batasuna are mostly mechanical. These results suggest that factors such as the perceived fairness of the changes in the rules or long run strategic considerations might matter for the strength of voters' or parties' response to changes in incentives in the short run.

[7] Conditional on a number of assumptions, IV estimate the Local Average Treatment Effect (LATE), the average treatment effect for the compliers (Imbens and Angrist, 1994)

[8] Fiva and Folke (2014), Pellicer and Wegner (2014), Blais *et al.* (2012), Blais *et al.* (2011)

2 The Basque Country and the Ban of Batasuna

The Basque Country is a region in the North of Spain, with more than two million inhabitants and a GDP per capita of more than €30.000, being one of the richest regions of Spain.[9] An important characteristic of the Basque Country is that a large share of its citizens have a strong sense of Basque identity which has led to demands of greater autonomy for the region and even of full independence from Spain.[10] This has also led to a multi-dimensional political system at the regional level such that every party in the regional elections is characterized by a policy position in both the left-right and the nationalist (i.e. the preferred level of regional self-governance) dimensions. While this additional nationalist policy dimension is mostly policy relevant for regional politics and not for local politics,[11] it affects local politics to the extent that it shapes the existence and the organization of political parties in the region, giving rise to a large number of parties with significant representation in the Basque Political Institutions, also at the local level.[12]

In the Basque Country, as in the rest of Spain, the seats of city councils in municipalities with more than 250 inhabitants are allocated according to a proportional system.[13] There is a blocked-list system of candidates, and the mayor of each municipality is elected by a majority of the city council.[14] The main parties contesting the Basque Municipal Elections can be divided into Federal Parties (with candidatures everywhere in Spain) and Basque Nationalist Parties (with candidatures only in the Basque Country). Among the Federal, the main parties are the Popular Party - PP (the main federal conservative party, which is in favour of a rather centralized organization of Spain), the Socialist Party - PSOE (the main federal social democratic party;

[9] The Basque Country is a region with a privileged fiscal status. This is due to the fact that in the middle ages, as the Kingdom of Castile expanded and incorporated other territories into the Crown of Castile, the monarchy granted some of them certain privileges which were known as fueros, or "charters". While these privileges had been abolished for long periods of time, the Spanish Constitution of 1978 recognized them again. As a result, the Basque Country has its own autonomous treasury and fiscal autonomy. It can establish and regulate its own tax system and collect and manage all Federal taxes, with the exception of the VAT, and it just has to pay a certain amount of money to the Central Government for the management of Federal Competences

[10] Besides Spanish, the Basque Language (*Euskara*) is a co-official language of the region. It is one of the most ancient languages in the world, being the last remaining descendant of the pre-Indo-European languages of Western Europe.

[11] The regional Government and Parliament are those who would bargain for more or less autonomy with the Spanish Government, but the role of local governments for that is rather irrelevant

[12] With the same electoral system, most other regions in Spain have a significantly lower number of parties obtaining institutional representation

[13] Using the d'Hondt Method with a threshold of 5% of the votes to obtain representation

[14] The city council is the legislative power and the local government led by the Mayor the executive power

in favour of a more decentralized organization of Spain) and United Left - IU (the main federal leftist party; in favour of a rather decentralized organization of Spain and which recognizes the right of self-determination for the regions of Spain). Among the Basque Nationalists, the Basque Nationalist Party–"Euzko Alderdi Jeltzalea" (PNV) is the main conservative (Christian Democratic) party in the region. It favors of greater autonomy for the Basque Country and it has held the regional government almost every term since the end of Franco's dictatorship. Eusko Alkartasuna–"Basque Solidarity" (EA) is an independentist and centrist – social democratic party which split from the PNV in the 1980's. In local elections, in some municipalities the PNV and EA contest the election together in a single electoral list.[15] Last but not least, Batasuna, a leftist and independentist party.[16]

Politics in the Basque Country have been heavily influenced by the existence of ETA (Euskadi ta Askatasuna), a terrorist group in favor of the independence of the Basque Country. ETA was created in 1958 (during Franco's dictatorship) and was active until 2011, when it announced a permanent end of its armed activities.[17] Over this period, ETA killed more than 800 people, mostly between the end of the 1970's and the 1980's. Besides its direct victims, ETA's terrorism has had important economic consequences for the region and has also influenced the political environment.[18] Politically, one of the most relevant consequences of ETA has been the ban of Batasuna, the main leftist independentist party in the region. Batasuna used to represent not only the ideological space of ETA (leftist-independentism) but also its political space and interests, and for this reason it was never willing to reject ETA's terrorism.

In June of 2002, the Spanish Parliament passed a new law of Political Parties, with the support of more than 90% of its members.[19] The aim of the law reads as follows:

> *"The aim is to guarantee the operation of the democratic system and the citizens' essential freedoms, avoiding the possibility that a political party could, in a reiterate and grave way, attempt against this democratic regime of freedom, justify racism and xenophobia or polit-*

[15] In other elections, EA has also formed pre-electoral coalitions with leftist parties

[16] This party had different names and electoral brands, such as Herri Batasuna and Euskal Herritarrok. For simplicity, I refer to these parties as Batasuna

[17] During this period, ETA held a number of cease-fires. The last ceasefire started in September of 2010. In January of 2011, ETA announced that that ceasefire would be permanent and verifiable by international observers. On October of 2011, ETA announced a definitive cessation of its armed activities.

[18] Abadie and Gardeazabal (2003) estimate that after the outbreak of terrorism in the late 1960's, per capita GDP in the Basque Country declined 10% relative to a synthetic control region without terrorism

[19] Organic Law 6/2002 of Political Parties. `http://www.boe.es/boe/dias/2002/06/28/pdfs/A23600-23607.pdf`. Voted in favour of the law: PP, PSOE, CiU, CC, PA. Voted against the law: PNV, EA, BNG, ERC, ICV, CHA

ically support violence and the activities of terrorist groups. (...) it becomes indispensable to identify and to distinguish with all clarity those organizations which defend and promote their ideas and programmes, whichever they are, even those which expect to revise the constitutional framework, with a scrupulous respect for the democratic methods and principles, from those which base their political action on the connivance with violence, terror, discrimination, the exclusion and the violation of rights and freedoms"

A few weeks later, the Council of Ministers decided to ask the Supreme Court of Spain for the ban of Batasuna. After a deliberation process, in March of 2003 the Supreme Court of Spain banned Batasuna.[20] After the ban, the leftist-independentist movement in the Basque Country ("Izquierda Abertzale") attempted to be in the different elections to be held in the Basque Country by either creating new parties or by using old parties but these attempts were mostly succesfully blocked by the courts. As a result, in the 2003 local elections the "Izquierda Abertzale" could not be present in any municipality. In the 2007 local elections, the "Izquierda Abertzale" managed to be present in a subset of municipalities where the courts failed to find enough links to Batasuna to invalidate the candidatures. In such municipalities, Batasuna was present under the name of EAE-ANV.[21] In both elections (2003 and 2007), the "Izquierda Abertzale" called for a null vote (with the exception of the municipalities where EAE-ANV managed to be legal). With the aim of participating in the 2011 local elections the "Izquierda Abertzale" created another party, "Sortu" (Create), which was meant to be part of a larger candidature named "Bildu" (Gathering), which had been created by EA and Alternatiba, a Basque Split from IU. Sortu was the first party of the 'Izquierda Abertzale" to explicitly reject ETA's violence. The 1st of May of 2011, the Supreme Court of Spain invalidated the electoral lists of Bildu and forbade the inscription of Sortu into the registry of political parties because of its ties with Batasuna. However, a few days later, in May 5th, the Constitutional Court of Spain partially revoked the Supreme Court decision and allowed Bildu to contest the 2011 elections to be held on May 22nd. Contrarily to what happened in previous elections, although Sortu was banned, the "Izquierda Abertzale" did not call for a null vote but for a vote for

[20] The political organizations which were outlawed by that judicial sentence were Herri Batasuna, Euskal Herritarrok and Batasuna

[21] After the sentence in 2003, the "Izquierda Abertzale" created a new party ("Autodeterminaziorako Bilgunea" - AuB) with the aim of being present in the Municipal Elections to be held on the 25th of May of 2003. However, the Supreme Court of Spain invalidated these electoral lists due to its links with Batasuna. With the aim of participating in the 2007 local elections, the "Izquierda Abertzale" revived an old party, "Eusko Abertzale Ekintza-Acción Nacionalista Vasca" (EAE-ANV). In this case, the Spanish Courts could only invalidate a share of the municipal electoral lists (around 50%) due to its links to Batasuna.

Bildu, and declared its willingness to become part of it as soon as possible. In 2012, Sortu was legalized by the Constitutional Court of Spain, a decision which was approved with only one vote of difference (6 votes in favor, 5 against) and became part of Bildu. This happened months after ETA had announced the definitive cessation of its armed activities, in October 2011.

3 Effects of the Ban on Political Outcomes

The aim of this section is to provide a precise description of the effects of the ban of Batasuna on the political environment by estimating the total effect of the Ban of Batasuna on a number of political outcomes and disentangling it into a mechanical component (the effect which arises because the votes for Batasuna no longer translate into seats) and a psychological component (which arises due to changes in voters' and parties' behavior arising in anticipation of the mechanical effects). The decomposition of total effects of electoral reforms into mechanical and psychological effects goes back to Duverger (1954), but it has not been taken seriously empirically until recently (Fiva and Folke (2014), Pellicer and Wegner (2014), Blais *et al.* (2012) and Blais *et al.* (2011)). To disentangle the effects of the ban of Batasuna into mechanical and psychological effects I follow the approach of this recent literature which uses the formulaic structure of electoral rules to generate counterfactual election outcomes. This approach can be illustrated with an example.

For a given number of parties k, let an electoral rule f be a function from a vector of votes into a vector of seats, f: $\mathbb{R}^k \to \mathbb{R}^k$. Let an electoral outcome h (i.e. share of leftist parties, Herfindahl Index of seat share concentration) be a function from a vector of seats into the real numbers, h: $\mathbb{R}^k \to \mathbb{R}$. Consider a pair of elections, election 1 and election 2, such that everything is identical but the electoral rule. Election 1 takes place under electoral rule f_1, and the voting result is v_1; election 2 takes place under electoral rule f_2, and the voting result is v_2. For a generic outcome h, the total effect of switching from electoral rule 1 to electoral rule 2 is:

$$TE = h(f_2(v_2)) - h(f_1(v_1)) \tag{1}$$

The mechanical effect of switching from electoral rule 1 to electoral rule 2 is defined as:

$$ME = h(f_2(v_1)) - h(f_1(v_1)) \tag{2}$$

The psychological effect of switching from electoral rule 1 to electoral rule 2 is defined as:

$$PE = h(f_2(v_2)) - h(f_2(v_1)) \tag{3}$$

Note that the sum of the mechanical and psychological effects is equal to the total effect:

$$ME + PE = h(f_2(v_1)) - h(f_1(v_1)) + h(f_2(v_2)) - h(f_2(v_1)) = h(f_2(v_2)) - h(f_1(v_1)) = TE \tag{4}$$

Therefore, we can decompose the total effect into a component which captures the effect of the rule for a given voting result (the mechanical effect) and a component which captures the effect which is due only to the changes in the behavior of voters and parties due to the change of rule (the psychological effect). Note that among the above, only $f_2(v_1)$ is not observed. It is constructed by using the formulaic structure of electoral rules to obtain a counterfactual vector of seats (a counterfactual city council) applying rule 2 to v_1. The distinction between mechanical and psychological effects is interesting because it allows to see whether voters and parties respond to incentives and how important is this response in comparison with the mechanical effects. While this framework was thought to analyze the effect of electoral rules, it can also be used to analyze the effect of the ban of Batasuna on political outcomes: the ban of a political party can be seen as a change in the electoral rule such that the votes for that party simply no longer translate into seats.

This decomposition is illustrated for the case of the ban of Batasuna with an example in table 10 in the Appendix. In this example, for the sake of illustration I assume that pre and post-ban elections are identical except for the ban of Batasuna. Figure A in table 10 shows the pre-ban actual city council of a given municipality. Figure B shows its counterfactual counterpart, which is constructed using the pre-ban voting results, but excluding Batasuna from the city council. Finally, figure C shows the post-ban actual city council. Since in this example the ban is the only thing that changes between the pre and post-ban elections, the

Total Effect of the ban is given by differences between C, the post-ban actual city council, and A, the pre-ban actual city council. The Mechanical Effect is given by differences between B, the pre-ban counterfactual city council, and A, the pre-ban actual city council. The ban mechanically changes the seat allocation because it changes the mapping between votes and seats. In particular, in Basque Municipalities, which use a proportional electoral rule, the ban of Batasuna mechanically increases the seat share of the remaining parties approximately proportionally. The Psychological Effect is given instead by differences between C, the post-ban actual city council, and B, the pre-ban counterfactual city council.

Notice that the Total Effect is the sum of the Mechanical and the Psychological Effect. While both the previous expressions for Total, Mechanical and Psychological Effects and the example in table 10 assume that the only thing that changes between the pre and post ban political environment is the Ban of Batasuna, in practice there are other factors which change from election to election and which might affect voters' and parties' behavior. This means that the total and the psychological effect of the ban are not identified for a given municipality (note instead that mechanical effects are identified, by construction). However, it is possible to estimate them, in this case by using the municipalities where Batasuna did not exist before the ban as a control group.

3.1 Data on Political Outcomes

I use data from the 1995, 1999, 2003 and 2007 municipal elections in the Basque Country, collected by the Interior Ministry.[22] These data include turnout, spoilt –"null"– votes, votes and seats for each party in every municipality and election.

Table 1 shows descriptive statistics of the main political outcomes before and after the ban averaged over the corresponding periods. The left panel shows that while turnout remains stable, null votes (as a fraction of turnout) sharply increase from less than 1% before the ban to almost 14% after the ban, presumably because whenever Batasuna could not contest the elections it was asking for a null vote. Moreover the table shows that the region is characterized by a large number of absolute majorities: almost 60% of municipalities had an absolute majority

[22] Pre-ban: 1995 and 1999 elections. Post-ban: 2003 and 2007 elections. These data can be freely downloaded from `http://www.infoelectoral.mir.es/min/`, in the "Área de Descargas"

before the ban, and after the ban this percentage increases up to 70%. Instead, the Effective Number of Parties, a measure of Competition given by the reciprocal of the Herfindahl index of seat share concentration, declines after the ban from around 2.6 to 2.2.[23]

Table 1: Descriptive Statistics – Main Political Outcomes

	Pre-Ban		Post-Ban	
	Mean	S.D.	Mean	S.D.
Turnout	0.627	0.087	0.629	0.088
Null Votes	0.014	0.017	0.133	0.138
Absolute Majority	0.580	0.494	0.719	0.450
ENP	2.590	0.882	2.194	0.922
N	440		440	

	Pre-Ban		Post-Ban	
	Mean	S.D.	Mean	S.D.
Seat Share Left Wing	0.426	0.243	0.285	0.262
Seat Share Right Wing	0.490	0.255	0.596	0.299
Seat Share Nationalist	0.755	0.260	0.704	0.278
Seat Share Federal	0.148	0.180	0.163	0.195
N	440		440	

The right panel shows that the average seat share of the sum of all leftist parties increased by more than 10% and the average seat share of right wing parties increased by around 10%.[24] The change in the share of Basque Nationalist parties and Federal parties is smaller: the share of Nationalist declined by 5% but the share of Federal parties increased by only slightly more than 1%. The overall picture is that while before the ban, city councils were on average rather balanced on the left-right dimension (only slightly more right wing), after the ban this difference becomes large. Regarding the identity of the political parties obtaining representation, both before and after the ban the Basque Nationalist Parties obtain more than 50% of the seats on average.

Table 2 shows the average seat shares of the main political parties before and after the ban. Among the Basque parties, the PNV has a slightly larger seat share after the ban while the opposite happens to EA. This is surprising since EA is the party which is ideologically closer to Batasuna but it can be explained by an increase of the joint PNV-EA candidatures, which obtain larger seat shares in the post-ban period. Adding up the seat shares of the PNV, EA and their joint candidatures the table shows that their seat shares increase by 10% on average.

Regarding Batasuna, table 2 shows that before the ban it used to hold almost 25% of the seats in the city councils of the region.[25] After the ban, this fell until 7% (instead of 0%) because in 2007 the courts could not block all the candidatures of EAE-ANV. Figure 1 shows a

[23]The ENP was introduced by Laakso and Taagepera (1979)

[24]Parties are classified as leftists (mainly Batasuna, the PSOE and IU), centrists (mainly EA) and right-wing (mainly the PNV, the joint lists PNV-EA and the PP)

[25]Before the ban, Batasuna was named Herri Batasuna and Euskal Herritarrok. After the ban, EAE-ANV

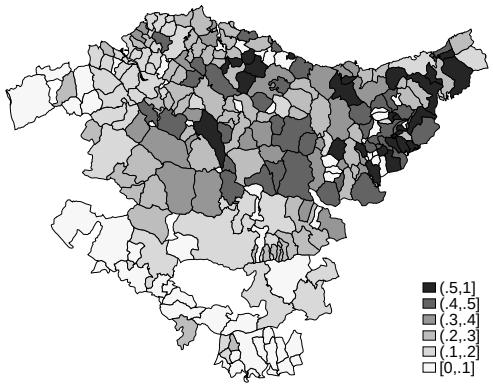
map with the seat shares obtained by Batasuna in every Basque municipality in the 1999 local elections, the last before the ban, revealing that before the ban their presence was important and quite heterogeneous across municipalities.

Table 2: Seat Shares - Main Political Parties

	Pre-Ban		Post-Ban	
	Mean	S.D.	Mean	S.D.
PNV	0.349	0.258	0.363	0.331
EA	0.094	0.145	0.066	0.127
PNV-EA	0.063	0.156	0.161	0.300
PNV+EA+PNV-EA	0.506	0.237	0.590	0.299
N	440		440	

	Pre-Ban		Post-Ban	
	Mean	S.D.	Mean	S.D.
Batasuna	0.244	0.198	0.073	0.169
PP	0.066	0.105	0.071	0.115
PSE-PSOE	0.070	0.112	0.092	0.134
IU	0.012	0.033	0.013	0.034
N	440		440	

Figure 1: Euskal Herritarrok's Municipal Seat Shares, 1999 Election



Regarding the federal parties, on the right panel of table 2 we observe that the differences before and after the ban are rather small, the most significant being the increase in seat shares for the Socialist Party (PSOE) after the ban. The PP also marginally increases its seat shares from 6.5% to 7%. To sum up, these descriptive statistics show that the political environment changed substantially after the ban of Batasuna. The aim of the next subsection is to estimate what fraction of these changes are due to the ban, and within the changes which are due to the ban, what share is due to mechanical effects and what share is due to changes in behavior.

3.2 Total, Mechanical and Psychological Effects

3.2.1 Total Effects

To estimate the Total Effect of the ban on a political outcome, I use data on the actual outcome from the 1995 and 1999 elections (pre-ban) and the 2003 election (post-ban) and estimate the

following equation by OLS:[26]

$$\text{Political Outcome}_{mt} = \alpha_m + \delta_t + \beta_T Ban_{mt} + \epsilon_{mt} \tag{5}$$

Where m stands for municipality and t for time. $Ban_{mt} = 1$ for the post-ban observations if Batasuna used to be present in that municipality before the ban and zero otherwise. Therefore, I use the fact that Batasuna was not present in all municipalities to separately identify the election effect and the effect of the ban, so that the election effect captures time-specific changes in the outcome which are not related to the ban. The coefficient of interest is β_T, the total effect of the ban of Batasuna on the political outcome of interest.

3.2.2 Mechanical Effects

To estimate the Mechanical Effect of the ban on a generic political outcome, I use data on the actual outcome corresponding to the pre-ban elections (1995 and 1999), and data from the counterfactual outcome corresponding to the same pre-ban period (1995 and 1999 elections). The counterfactual outcome is the outcome computed from the seat distribution that would have arised if, given the pre-ban voting results, the votes of Batasuna would have not translated into seats (the equivalent of $h(f_2(v_1))$ in the previous example).[27] With these data, I estimate the following equation by OLS:

$$\text{Political Outcome}_{mtc} = \alpha_m + \delta_t + \beta_M Ban_{mtc} + \epsilon_{mtc} \tag{6}$$

Where m stands for municipality, t for time and c for counterfactual. $Ban_{mtc} = 1$ only for the observations corresponding to the counterfactual outcome if Batasuna used to be present in that municipality before the ban. It is zero for the observations corresponding to the actual pre-ban outcome and for the observations corresponding to the counterfactual outcome if Batasuna was not present in that municipality before the ban (note that for these municipalities, the counterfactual is identical to the actual result). Therefore, fixing the pre-ban voting results, β_M

[26] I only use the 2003 election as post-ban outcome to make the interpretation easier as in 2007 there is no perfect compliance with the ban, but the results including the 2007 election results are qualitatively similar

[27] For each municipality, the seat allocation is replicated without considering the votes of Batasuna, using the d'Hondt method with an electoral threshold of 5% of the votes

will capture how on average, holding the pre-ban voting pattern fixed, the ban changes a certain political outcome – the mechanical effect of banning Batasuna on that political outcome.

3.2.3 Psychological Effects

To estimate the Psychological Effect of the ban on a generic political outcome, I use data on the actual outcome for the post-ban election (2003), and data on the counterfactual outcome for the pre-ban period (1995 and 1999 elections). The counterfactual outcome is the outcome computed from the seat distribution that would have arised if, given the pre-ban voting results, the votes of Batasuna would have not translated into seats (the equivalent of $h(f_2(v_1))$ in the previous example). With these data, I estimate the following equation by OLS:

$$\text{Political Outcome}_{mt} = \alpha_m + \delta_t + \beta_S Ban_{mt} + \epsilon_{mt} \tag{7}$$

Where m stands for municipality and t for time. $Ban_{mt} = 1$ for the post-ban observations if Batasuna used to be present in that municipality before the ban and zero otherwise. The effect of the ban is separately identified from the election effect since Batasuna was not present in all municipalities. The coefficient of interest is β_S and it captures how, fixing the "electoral rule", the outcome of interest changes due to the changes in the behavior of voters and parties.[28]

3.2.4 Results and Interpretation

Table 3 shows the estimates of the Total, Mechanical and Psychological Effects for the seat shares of the main parties in the Basque Local Elections. Each cell corresponds to the estimation of a separate regression. Columns indicate the outcome of interest (the dependent variable), and rows indicate the estimated equation and effect (Total, Mechanical or Psychological Effect, corresponding to the estimation of equations 5, 6 and 7). Note that by definition $\hat{\beta}_T = \hat{\beta}_M + \hat{\beta}_S$.

The mechanical effect of the ban of Batasuna on the seat share of another political party indicates the within municipality correlation between the seat shares of that party and the seat shares of Batasuna before the ban. In other words, the stronger a political party used to be

[28] Fixing the electoral rule here means fixing that the votes for Batasuna do not translate into seats

Table 3: Effects of the Ban, Main Political Parties' Seat Shares

	PNV	EA	PNV-EA	PNV+EA+PNV-EA	PP	PSOE	IU
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
TE	-0.001	-0.027	0.162**	0.134**	-0.001	0.011	0.009***
	(0.039)	(0.027)	(0.063)	(0.056)	(0.029)	(0.014)	(0.002)
ME	0.113***	0.034***	0.034***	0.181***	0.019***	0.021***	0.006***
	(0.008)	(0.004)	(0.005)	(0.010)	(0.003)	(0.003)	(0.001)
PE	-0.114***	-0.061**	0.128**	-0.047	-0.020	-0.010	0.003*
	(0.038)	(0.028)	(0.062)	(0.056)	(0.029)	(0.014)	(0.002)

Each cell corresponds to the estimate of a separate regression. Columns indicate the outcome of interest (the dependent variable), and rows indicate the estimated equation and effect (Total, Mechanical or Strategic Effect). All regressions are differences-in-differences models with municipality fixed effects and election (time) fixed effects, where the treatment is an indicator variable for the presence of Batasuna before the ban. Total Effect regressions use the actual sample (pre and post-ban); Mechanical Effect regressions use the pre-ban actual sample and the counterfactual city council sample based on pre-ban voting results; Strategic Effect regressions use the counterfactual city council sample based on pre-ban voting results and the actual post-ban sample. For Total and Strategic Effect regressions, N=660; for Mechanical Effect Regressions, N=880. Standard Errors Clustered at the Municipality Level in parentheses. Significance at the 10% level is represented by *, at the 5% level by **, and at the 1% level by ***. Basque Nationalists: PNV and EA. Federal: PP, PSOE, IU. Conservatives: PNV, PP. Leftists: PSOE, IU.

wherever Batasuna was also strong, the larger the estimated mechanical effect of the ban on the seat share of that party. The results show a negative effect of the ban for the seat shares of both the PNV and EA, but a positive effect for the coalition PNV-EA, which is driven both mechanically and psychologically. Looking at the sum of them (alone and in coalition), they increase their seat shares by 13 percentage points. This effect is mostly driven mechanically, as the psychological effect is more than three times smaller than the mechanical effect and it is not statistically significant.

Regarding the main federal parties, the results show that the ban did not have any significant effect on the seat shares of the PP and the PSOE. While mechanically they slightly increase by around two percentage points and this is statistically significant, the net effect is close to zero and not significant. The lower mechanical changes for the PP and the PSOE indicate that compared to the nationalist parties, these parties did not have a strong presence in the municipalities where Batasuna used to be stronger. Note that while the descriptive statistics show that the PSOE had larger seat shares after the ban, these results suggest that this was due to other trends. This is possibly due to the fact that it was a period of great success for the PSOE everywhere in Spain (the PSOE won the Spanish General Elections in April 2004). Finally, IU obtains one percentage point more on average, which is not small given its pre-ban seat shares. This effect is mostly driven mechanically, but also the psychological effect is marginally significant and accounts for one third of the total effect of the ban.

Table 4 displays the estimates of the Total, Mechanical and Psychological Effects for some

relevant descriptive statistics of the political environment — the share of null votes, the seat share of leftist parties, the seat share of right wing parties, the seat share of nationalist parties, the seat share of federal parties, the Effective Number of Parties - ENP, and an indicator variable for Absolute Majorities. Again, each cell corresponds to the estimation of a separate regression. Columns indicate the outcome of interest (the dependent variable in the regression), and rows indicate the estimated equation and effect (Total, Mechanical or Psychological Effect, corresponding to the estimation of equations 5, 6 and 7). The results show that the ban had large effects on these political variables. It increased null votes (as a percentage of turnout) by almost 15%, which is consistent with the fact that after the ban Batasuna called for a null vote. In fact, the share of null votes is only 10 percentage points lower than the pre-ban average vote share of Batasuna in the municipalities where it was present, which was 26%. The mechanical effect of the ban on null votes as a fraction of turnout is thus exactly of 26%, as we are interpreting the ban as a change in the electoral rule such that the votes for Batasuna no longer translate into seats but are counted as null (non-valid) votes. If everyone who voted null was a former voter of Batasuna, this would mean that 60% of their former voters decided to vote null and only 40% of their former voters decided to vote for other parties or to abstain.

The second column in table 4 shows that the ban reduced the share of leftist parties by 24 percentage points and that this reduction is mostly mechanical. Note that the mechanical effect is close to the pre-ban average seat share of Batasuna, which means that on average Batasuna was the main leftist party in the city council. The share of right wing parties increases on average by around 25 percentage points, and again this effect is mostly mechanically driven. The fact that the mechanical effect on the share of right wing parties is smaller (0.17) than the mechanical effect on the share of leftist parties (0.24) means that while the competitors of Batasuna before the ban were mostly right wing parties, a fraction of them were also centrist or independent.

Table 4 also shows that the share of nationalist parties decreases and the share of federal parties increases. The fact that these effects, specially the mechanical effects, are small in comparison to those in the ideological dimension suggest that in the municipalities where Batasuna was present before the ban parties were rather homogeneous in terms of identity and more het-

erogeneous in terms of ideology. The results suggest that in the municipalities where Batasuna was present the remaining parties where mostly nationalist as well. In spite of the mechanical decrease in the seat share of Batasuna of around 25 percentage points, the share of nationalist parties mechanically falls by only 8.4 percentage points. Thus, regarding the identities of the parties (nationalist vs. federal), the ban does not seem to significantly change (aggregate) voting behavior towards any specific direction since the results are mostly mechanically driven.

Table 4: Effects of the Ban - Other Political Outcomes

	Nulls/Turnout	Share Left	Share Right	Share Nationalist	Share Federal	Abs Maj	ENP
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
TE	0.159***	-0.239***	0.248***	-0.101**	0.079***	0.280***	-0.763***
	(0.011)	(0.017)	(0.050)	(0.046)	(0.023)	(0.063)	(0.099)
ME	0.259***	-0.242***	0.170***	-0.084***	0.048***	0.241***	-0.662***
	(0.011)	(0.011)	(0.008)	(0.010)	(0.005)	(0.028)	(0.021)
PE	-0.100***	0.003	0.078	-0.017	0.031	0.039	-0.105
	(0.010)	(0.013)	(0.050)	(0.047)	(0.023)	(0.058)	(0.097)

Each cell corresponds to the estimate of a separate regression. Columns indicate the outcome of interest (the dependent variable), and rows indicate the estimated equation and effect (Total, Mechanical or Strategic Effect). All regressions are differences-in-differences models with municipality fixed effects and election (time) fixed effects, where the treatment is an indicator variable for the presence of Batasuna before the ban. Total Effect regressions use the actual sample (pre and post-ban); Mechanical Effect regressions use the pre-ban actual sample and the counterfactual city council sample based on pre-ban voting results; Strategic Effect regressions use the counterfactual city council sample based on pre-ban voting results and the actual post-ban sample. For Total and Strategic Effect regressions, N=660; for Mechanical Effect Regressions, N=880. Standard Errors Clustered at the Municipality Level in parentheses. Significance at the 10% level is represented by *, at the 5% level by **, and at the 1% level by ***.

Finally, the results show how the ban increases the probability of having an absolute majority by almost 25 percentage points. The psychological effect is of less than a percentage point, which means that the effect is mostly mechanical again. The results also show that the ban had a negative effect on the ENP, which on average declines by 0.7 (the pre-ban mean of the ENP is around 2.6) and this effect is also mechanically driven.

Therefore, the picture that emerges from the results in tables 3 and 4 is that of a political environment which changes towards the right, becomes less nationalist, with elections that are on average less competitive and with is a larger number of absolute majorities. Moreover, these effects are mostly driven mechanically, that is, by the simple fact that Batasuna is not legal and its votes do not translate into seats, as the aggregate distribution of votes across ideologies and identities (nationalist vs. federal) barely changes. The fact that the effects are mostly mechanical can partly be explained by the fact that the share of null votes in the municipalities where Batasuna had representation before the ban increases from almost 1% to 16%, which corresponds to almost two thirds of the average vote share that Batasuna used to

have before the ban. Although it is not possible to observe individual behavior, it is very likely that these are former Batasuna voters who followed the request of the political movement to cast a null vote. This result is interesting as other papers empirically disentangling mechanical from psychological effects always found significant psychological effects. This could be due to the fact that the ban was perceived as unfair by the former voters of Batasuna, possibly raising his attachment to the party in the short run. This could make them reluctant to support a close substitute party if the policy benefits of doing it were smaller than the disutility they could face by having to vote for another party. This could be the case specially if they believed that signalling that they still support the banned party could have effects in the law or in other parties' behavior in a longer horizon. However, this can only partially explain the results, as the voters of other parties also saw how their incentives to vote for smaller parties increased, and in spite of that, the psychological effect on the ENP and absolute majorities is not significant and negative. This could be due to a strong feeling of party attachment of Basque voters, such that proportionality considerations become of small order when deciding who to vote for.

4 Absolute Majorities and Policy Outcomes

4.1 Data on Municipal Fiscal Variables

The Basque Country consists of more than 200 municipalities, which as most European local governments are multipurpose governments and have spending responsibilities in a number of areas. All municipalities must provide and mantain street lighting, waste collection, cemetries, street cleaning, drinking water, sanitary sewer, road paving, and most of them also public parks, libraries, civil protection, primary health care, care for the elderly, public sports facilities, environmental protection, urban planning or public transportation.

I use panel data on yearly Total Spending and its two components (Current Spending and Capital Spending), on the main component of Current Spending (Public Goods and Services Spending) and on Total Revenues, corresponding to 123 municipalities over 15 years (from 1997 to 2011), which correspond to four electoral terms (1996-1999, 2000-2003, 2004-2007 and 2008-2011).[29]

[29]The sample includes all municipalities with more than 1200 inhabitants to have comparable treatment and

Table 5 displays descriptive statistics of yearly local spending and revenues in per-capita €2011.[30] Regarding spending, around 62.5% is devoted to current expenditures, with personnel expenditures and goods and services expenditures being its largest components. Regarding capital spending, it mainly consists of investments. A small share is devoted to capital transfers and debt service. The main sources of revenues of Basque municipalities are "own" revenues (mostly local taxes and fees), grants, and debt. On average, grants are the larger component of revenues (almost 60%) and current grants are twice as large as capital grants. Own revenues represent almost 40% of total revenues, and the share of revenues that is obtained from debt is lower (around 4%). Typically current spending is mostly funded out of own revenues and unconditional grants and capital spending is largely funded out of conditional capital grants.

Table 5: Per-Capita Expenditures and Revenues (2011 €)

	Mean	S.D.
Total Expenditures	1445.162	533.814
Current Expenditures	904.110	234.071
Public Goods Expenditures	415.246	159.859
Capital Expenditures	541.053	399.966
Total Revenues	1438.84	533.98
N	1845	

I also use data on the municipalities' demographic characteristics which change over time. The average population size is 16761.77 (s.d. 42081.3) and the median municipality has around 5000 inhabitants. On average, 14% of the inhabitants are young (0-16) and 17.5% are older than 65.

4.2 Identification

I use the dataset which includes the municipalities' yearly fiscal variables from 1997 to 2011 merged with the political variables corresponding to the 1995, 1999, 2003 and 2007 elections and with the demographic variables to investigate the effect of government fragmentation on policy outcomes by estimating the following regression:

$$\text{Fiscal Policy}_{mt} = \alpha_m + \delta_{p(m),t} + \beta_1 \text{Absolute Majority}_{mt} + \beta_3' \text{X}_{mt} + \epsilon_{mt} \quad (8)$$

control groups. The municipalities of Markina-Xemein and Ziortza-Bolibar are excluded form the sample as they used to be a single municipality until they split in 2003.

[30] Data on revenues and spending have been obtained from EUSTAT, the regional statistics service of the Basque Country

The Fiscal Policy of Municipality m in year t is regressed on an indicator variable which is equal to one if there is an absolute majority in the city council (a party holds more than 50% of the seats).[31]. To control for time-invariant municipality-specific unobserved heterogeneity, I include municipality fixed effects, and to control for time-specific municipality-invariant unobserved heterogeneity I include province-specific year fixed effects, which are denoted by $\delta_{p(m),t}$.[32] X is a vector of municipality-specific time-variant demographic controls.

It must be emphasized that I only observe whether there is an absolute majority in the city council or not, and that although I refer to the governments which do not hold an absolute majority as coalition governments, some of them could also be single party minority governments. This partition is common in the literature as single party minority governments and coalition governments could be considered formally equivalent as in both cases the most voted party needs to reach agreements with other parties, but it has to be taken into account when interpreting the results.

We are interested in estimating a causal effect of Absolute Majorities on Policy (β_1). However, in general it is not possible to interpret the estimates from equation 8 as causal effects because coalitions and single party government might be different in dimensions related to policy other than executive fragmentation. In particular, within a proportional system, this absolute majorities are more successful electorally and on average have large electoral advantages, and we cannot treat this as being randomly assigned. For example, if parties have a preference for managing large budgets, if they anticipate that important spending projects will have to be pursued after the elections, they would exert more effort in the elections, making it more difficult for a single party to hold an absolute majority. This could lead to a correlation between government fragmentation and spending even in the absence of a causal effect of government fragmentation on spending. Besides this reverse causality problem, one would expect candidates or platforms managing to obtain an absolute majority to be different in unobservables from candidates or platforms who do not manage to obtain such a majority. And there are some unobservables potentially related to electoral success, such as politicians' quality, education or preferences for

[31] 1997-1999 fiscal variables - 1995 election results, 2000-2003 fiscal variables - 1999 election results, 2004-2007 fiscal variables - 2003 election results and 2008-2011 fiscal variables - 2007 election results

[32] There are three provinces in the Basque Country: Álava (Vitoria), Bizkaia (Bilbao) and Gipuzkoa (San Sebastián), and a fraction of the transfers received by local governments is given by provincial authorities. Time effects are province-specific since a fraction of the local budget is funded by provincial authorities

spending which are likely to lead to different policies. Moreover, electoral advantage is also related to reelection probabilities, which are likely to affect policy through different channels, such as accountability and rent extraction or such as the internalization of the costs of spending through budget deficits over time.[33][34]

To address these identification problems, I use the ban of Batasuna as an exogenous source of variation to construct an instrument for absolute majorities. The first stage regression is given by:[35]

$$\begin{aligned} \text{AM}_{mt} = \pi_m + \rho_{p(m),t} + \delta_1 (\text{Mechanical Change in AM})_{mt} \\ + \delta_2 (\text{Mechanical Change in Batasuna's seat share})_{mt} + \delta_4' \text{Controls}_{mt} + v_{mt} \end{aligned} \tag{9}$$

The main instrument for an absolute majority is the Mechanical Change in Absolute Majority due to the Ban of Batasuna. This variable is equal to zero for the pre-ban period, since before the ban there are no mechanical changes due to the ban. After the ban (2003), it is computed as the municipality specific average difference in absolute majority between the pre-ban actual city councils and the pre-ban counterfactual city councils.[36] The counterfactual city council is obtained by applying the post-ban electoral rule (i.e. the votes of Batasuna do no longer translate into seats) to the pre-ban voting results.[37]

$$\text{Mechanical Change in AM}_m = (\text{Avg. Pre-Ban AM} \mid \text{Counterfactual City Council})_m - (\text{Avg. Pre-Ban AM})_m$$

It is important to be precise about the variation that I exploit for identification. I account for systematic differences between municipalities by including municipality fixed effects, which

[33] Regarding competition and rent-extraction, Persson and Tabellini (2002), Svaleryd and Vlachos (2009)

[34] Regarding re-election probabilities and policy, Persson and Svensson (1989),Alesina and Tabellini (1990), Fiva and Natvik (2013)

[35] This identification strategy is inspired by Waldinger (2010) and Waldinger (2012) who uses "mechanical" changes in average faculty quality and student/faculty ratio and "mechanical" changes in the number of peers and peer quality to estimate the impact of these variables on PhD student outcomes and researchers productivity, respectively, using the dismissal of politically unreliable scientists in Nazi Germany as an exogenous source of variation.

[36] It is the average mechanical change of the mechanical change using the 1995 election results and the mechanical change using the 1999 results to construct the counterfactual city council

[37] The counterfactual city council is the analogous of $f_2(v_1)$ in 2, or the analogous of B in the example in table 10 in the Appendix

means that I exploit the changes due to the ban within each municipality. At the same time, I include province-specific year dummies, to account for any time-variant changes in spending needs or capacity that are common to all municipalities in a province.

The intuition behind this instrument is that municipalities which are mechanically pushed by the ban towards an absolute majority are exogenously more likely to have an absolute majority after the ban. However it must be emphasized that my identification assumption is not that this instrument is valid unconditionally but rather conditionally. This is because the disappearance of Batasuna could have effects on policy *per se* and the mechanical changes in Absolute Majorities could be correlated with the pre-ban weight of Batasuna. I deal with this by controlling for the mechanical change in the seat share of Batasuna, and this means that I assume that all the direct effects of the ban on policy due to the disappearance of Batasuna (i.e. due to Batasuna specific policy preferences or policy changes by other parties to capture disenfranchised voters) are proportional to the previous weight that this party used to have in each municipality.[38] Note that after conditioning on the mechanical change in the seat share of Batasuna, there is still variation in the mechanical changes in Absolute Majorities. Table 11 in the Appendix illustrates this possibility. In the example one can see how while Batasuna used to have the same seat share in either municipality (1 and 2), differences in the relative pre-ban seat shares of the remaining parties give rise to differences in the mechanical changes in Absolute Majorities. In municipality 1, the ban leads mechanically to an absolute majority, while in municipality 2, it doesn't. This is the type of variation that I exploit, which accounts for the pre-ban weight of Batasuna.

Moreover, to account for the fact that municipalities mechanically pushed towards an absolute majority could also be mechanically pushed towards a lower level of political competition or a larger electoral advantage which could have effects on policy unrelated to government fragmentation, I include the mechanical change in political competition, as measured by the electoral margin, as a control.

In addition to these identification assumptions, the correspondence between the mechanical changes in Absolute Majorities and the post-ban Absolute Majorities, which is not perfect, has

[38] All results are robust to the inclusion of a non-linear function of its pre-ban weight, i.e. the square or the square and the cubic of the mechanical change in the seat share of Batasuna

to be strong enough. Table 6 shows the results of the first-stage regression. The mechanical change in absolute majority is a significant predictor of having an absolute majority after the ban. The heteroskedasticity-robust F statistic is equal to 96.63, which is significantly larger than the critical value for weak instruments, as tabulated by Stock and Yogo (2002). To improve on precision in the second stage, I include controls for time-variant and municipality-specific demographic characteristics: the log of the municipality's total population and its square, the log of the share of young people (aged 0-16) in the municipality, and dummies for population thresholds at which revenues from the central or regional government change.

Table 6: First Stage

	Dependent Variable
	Absolute Majority
	(1)
Mech. Change in Absolute Majority	0.692***
	(0.0704)
Municipality F.E.	✓
Province-Year dummies	✓
Demographic Controls	✓
Kleibergen-Paap F	96.63
R^2	0.213
N	1845

Standard Errors Clustered at the Municipality Level in parentheses. Significance at the 10% level is represented by *, at the 5% level by **, and at the 1% level by ***. The mechanical change in the seat share of Batasuna and the mechanical change in political competition are included as a control. Demographic controls include the log of population and its square, the log of the share of young inhabitants and dummies for population thresholds at which revenues from the central or regional government change

In a constant treatment effects framework, the relevance of the first stage together with the validity of the previously stated identification assumptions would be sufficient for the IV estimator to consistently estimate the Average Treatment Effect of Absolute Majorities. However if the gain from treatment is not constant, for the IV estimator of equation to consistently estimate a causal effect we need a further assumption: monotonicity. Monotonicity requires that the instruments affect the treatment status in a monotone way. In this context, monotonicity implies that there should be no municipalities which would be less likely to have an absolute majority after a mechanical increase in Absolute Majority due to the ban. If monotonicity is satisfied, according to the Angrist-Imbens-Rubin framework of heterogeneous treatment effects (Angrist *et al.*, 1996), the IV estimator of equation 8 will consistently estimate the Local

Average Treatment Effect (LATE) of Absolute Majorities on Policy, which is the average treatment effect for the subpopulation of compliers: those municipalities such that their government fragmentation is affected by the mechanical changes due to the ban of Batasuna.

The monotonicity assumption is fundamentally untestable as we cannot observe counterfactuals for a particular municipality. In the context of the ban of Batasuna there is a particular mechanism that could be at work, which if sufficiently strong could lead to a violation of monotonicity. This mechanism is the expected increase in proportionality due to the expectation that a non-negligible share of the former voters of Batasuna would cast a null vote. An expected increase in proportionality raises the incentives to vote for smaller parties, and therefore it could be that a mechanical increase in competition comes along with a decrease in competition, and the same applies to absolute majorities. However, I believe that monotonicity is unlikely to be violated, for the following reasons. The results in table 4 show (1) that the changes in political competition and absolute majorities due to the ban are mostly driven mechanically and (2) that the sign of the psychological effect is the same of the mechanical effect. Moreover, the expected increase in proportionality is likely to be proportional to the mechanical change in the seat share of Batasuna, and the variation that I exploit is conditional on the mechanical change in the seat share of Batasuna.

4.3 Results and Interpretation

Table 7 reports the OLS and IV results. The dependent variables are total expenditures and its two components, current and capital expenditures, the main component of current expenditures (Spending in Public Goods and Services) and Total Revenues. according to the IV estimates, absolute majorities have a statistically significant effect on Current Spending which is consistent with the common pool hypothesis. Absolute majorities reduce Current Expenditures by €72.95 per capita, and this effect is driven by a statistically significant decrease in spending in Public Goods and Services of €62.59 per capita. The magnitude of these estimates is important, as the effect of absolute majorities on Current Expenditures is of around 8% of its sample mean or 13% of its sample standard deviation, and the effect on Public Goods and Services Spending is of around 15% of its sample mean or more than one third of its sample standard deviation. Regarding the effect of absolute majorities on Capital Expenditures, the estimate is very close

to zero. Unfortunately, the low precision of this estimate leads to an imprecise estimate of the effect of absolute majorities on Total Spending, which although it is very close in magnitude to the effect on current spending is not statistically significant. Although not fully conclusive, these results provide some support for the Common Pool hypothesis.

The IV estimates are mostly larger in magnitude than the OLS estimates, which are marginally statistically significant for Current Spending and Public Goods Spending. To directly compare OLS and IV estimates we would have to assume homogeneity in treatment effects. In that case, IV would consistently estimate the ATE/ATT and OLS would estimate the ATE/ATT plus differences at the baseline (i.e. the selection bias). According to this interpretation, these results suggest that regardless of government fragmentation, platforms which obtain absolute majorities behave differently, and in particular, spend more. This could be explained by the possibility that the large electoral advantage by absolute majorities could allow them to extract rents while keeping good reelection probabilities. An alternative or complementary explanation could be that unobservables driving electoral success are related to preferences for greater spending (i.e. ambitious-spendthrift politicians are more charismatic and electorally successful).

Moving from the constant treatment effects framework to the heterogeneous treatment effects framework (under which IV estimates the LATE) to interpret the results, it is interesting to compare these results to those of other papers which have estimated causal effects of absolute majorities using alternative identification strategies. Concretely, some recent working papers have used close elections in a Regression Discontinuity Design (RDD) as an alternative identification strategy, which delivers a different LATE. This is because the common-pool problem for coalition governments arises from the fact that each coalition party has some degree of discretion, unilateral or agenda setting powers in a certain area, an area which their voters value and for which they are hold accountable. It seems likely that this problem will be larger in cases in which parties in the coalition have more balanced weights, such that the small party (or parties) in the coalition is larger relative to the largest party and thus more likely to have more bargaining power to decide unilaterally or set the agenda in a certain area. Therefore, the IV estimates in table 7 measure the effect of a change in government fragmentation in municipalities where coalitions were relatively more balanced in terms of parties' seat shares, compared to a case in

which the first party holds almost 50% of the seats, as it is the case for compliers in an RDD of close elections. This could partly explain why the IV estimates in this paper to be larger (i.e. more consistent with the common-pool hypothesis) than the RDD estimates of Freier and Odendahl (2012) or Garmann (2012), which have even opposite signs. Which of these LATE is more policy relevant will depend on the situation faced by the policy-maker which is considering a change from a proportional system to a plurality system. If the proportional system at place is delivering coalitions where the largest party has a weight close to 50%, the RDD-LATE will be more relevant, but if instead it is delivering more balanced coalitions, the estimates in table 7 could be of interest.

A concern about the validity of these estimates, which are differences in differences, is that the results might be driven by differential time trends. In that case, it would not be possible to rule out the possibility that municipalities with different mechanical changes in absolute majorities would have implemented different policies even in the absence of the ban of Batasuna, and the IV estimates would not have a causal interpretation. I investigate this concern with a placebo test, using data corresponding to the pre-ban period (1997-2003, for the fiscal outcomes) and moving the ban to 1999.

Table 8 shows the results of the reduced form (the regression of the outcomes of interest on the set of instruments) and the placebo reduced forms (the regression of the outcomes of interest on the set of instruments, where the instruments are 0 until 1999 and equal to the mechanical changes afterwards, and which use only pre-ban data). The coefficients on the instruments in the placebo regressions are never statistically significant and even though the estimates are not very precise, the difference in magnitude between the true RF and the Placebo RF corresponding to the regressions where Current Expenditures and Public Goods Expenditures are the dependent variables are large (in the case of Public Goods Expenditures, which seems to be the the part of spending driving the results, the coefficients have opposite signs). Overall, the results suggest that the IV results are not driven by differential time trends.

Table 7: Instrumental Variables

	Dependent Variable									
	Total Expenditures		Current Expenditures		Capital Expenditures		Public Goods Exp.		Total Revenues	
	OLS	IV	OLS	IV	OLS	IV	OLS	IV	OLS	IV
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Absolute Majority	-42.58	-78.22	-28.54**	-72.95**	-14.04	-5.274	-22.96*	-62.59**	-38.60	-88.48
	(42.81)	(86.34)	(13.57)	(31.01)	(39.33)	(79.04)	(11.93)	(27.41)	(49.69)	(72.36)
Municipality F.E.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Province-Year dummies	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Demographic Controls	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Kleibergen-Paap F		96.63		96.63		96.63		96.63		96.63
R^2	0.133		0.112		0.103		0.126		0.148	
N	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845

All dependent variables are in €2011 and in per-capita terms. Standard Errors Clustered at the Municipality Level in parentheses. Significance at the 10% level is represented by *, at the 5% level by **, and at the 1% level by ***. OLS regressions include controls for the seat share of Batasuna and political competition and IV regressions control for the mechanical change in the seat share of Batasuna and the mechanical change in political competition. Demographic controls include the log of population and its square, the log of the share of young inhabitants and dummies for population thresholds at which revenues from the central or regional government change.

Table 8: Reduced-Form and Placebo Test

	Dependent Variable									
	Reduced-Form					Placebo moving ban to 1999 (Only [1997, 2003] observations)				
	Total Exp.	Current Exp.	Capital Exp.	Public Goods Exp.	Total Rev.	Total Exp.	Current Exp.	Capital Exp.	Public Goods Exp.	Total Rev.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Mech. Change in AM	-54.12	-50.47**	-3.649	-43.30**	-61.21	-3.250	-7.838	4.588	12.29	-11.39
	(60.16)	(23.00)	(55.60)	(19.82)	(49.94)	(70.82)	(19.45)	(63.08)	(17.77)	(-72.81)
Municipality F.E.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Province-Year dummies	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Demographic Controls	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
R^2	0.395	0.765	0.159	0.639	0.307	0.280	0.615	0.124	0.484	0.168
N	1845	1845	1845	1845	1845	861	861	861	861	861

Placebo regressions include only pre-ban observations [1997-2003]; the ban is moved to 1999. All dependent variables are in €2011 and in per-capita terms. Standard Errors Clustered at the Municipality Level in parentheses. Significance at the 10% level is represented by *, at the 5% level by **, and at the 1% level by ***. All regressions control for the mechanical change in the seat share of Batasuna and the mechanical change in political competition. Demographic controls include the log of population and its square, the log of the share of young inhabitants and dummies for population thresholds at which revenues from the central or regional government change.

4.4 Robustness Checks

To test the robustness of the previous results, table 9 reports the IV results including additional controls and for a number of subsamples. Each column in table 9 reports the results of 5 regressions, one for each dependent variable, with the same exact specification within every column. Column (1) displays the results of the benchmark specification. The specification corresponding to the results in column (2) includes two additional controls. First, the mechanical change in the share of leftist parties in the city council, to rule out concerns about the estimated reduction in spending due to absolute majorities being confounded by ideological changes in the city council, as we saw in section 3 that Batasuna used to be the main leftist party in the municipalities where it had representation. Second, the mechanical change in the incumbent, which controls for differences in the municipalities in which the ban mechanically changed the Mayor.[39] Since Batasuna used to be in office for at least one of the pre-ban electoral terms in 23% of the municipalities with a mechanical change in absolute majority , the aim of controlling for the mechanical change in the incumbent is to address concerns due to the fact that the change in the party in office could have an effect per-se. This could be because of learning or Batasuna-specific policy preferences or because of changes in transfers due to a change in the partizan alignment of the local government with respect to the regional or central government, a mechanism which Curto-Grau *et al.* (2012) have shown that is important for a sample of Spanish municipalities (although their sample does not include Basque municipalities). Note that the change in the incumbent is a direct effect of the ban, which according to the identification assumption should be proportional to the mechanical change in the seat share of Batasuna and therefore should not change the estimates. Table 9 shows how the estimates of the effects of absolute majorities on Current Spending and on Public Goods and Services' Spending including these controls are of slightly smaller magnitude but very similar and still statistically significant at the 5% level.

[39]This variable is equal to zero before the ban, for all municipalities. After the ban, it is equal to one if the Mayor used to be a Batasuna candidate in both pre-ban electoral terms, equal to 0.5 if it used to be a Batasuna candidate only in one of the pre-ban electoral terms, and zero otherwise

Table 9: Robustness Instrumental Variables Results

	Sample						
	Full Sample	Full Sample	Omitting 2003	Omit. 2002 & 2003	Pre-Crisis (2008)	Election Years	Non-Election Years
Dependent Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Total Expenditures:							
Absolute Majority	-78.22	-97.93	-104.2	-115.1	-93.17	-12.33	-104.6
	(86.34)	(86.04)	(93.76)	(102.4)	(91.74)	(108.5)	(95.57)
Current Expenditures:							
Absolute Majority	-72.95**	-67.00**	-73.39**	-78.44**	-50.72**	-96.95**	-64.98**
	(31.01)	(31.66)	(32.61)	(35.05)	(23.53)	(39.18)	(30.34)
Capital Expenditures:							
Absolute Majority	-5.274	-30.93	-30.79	-36.67	-42.45	84.62	-39.63
	(79.04)	(79.21)	(85.49)	(91.83)	(87.14)	(101.0)	(88.10)
Public Goods Exp.:							
Absolute Majority	-62.59**	-61.04**	-60.37**	-60.69**	-43.78**	-88.76***	-53.73*
	(27.41)	(29.03)	(29.44)	(30.59)	(21.26)	(32.12)	(27.66)
Total Revenues:							
Absolute Majority	-88.48	-96.88	-69.48	-96.24	-94.64	-106.88	-78.45
	(72.36)	(-75.52)	(82.08)	(88.96)	(74.24)	(93.92)	(87.2)
Municipality F.E.	✓	✓	✓	✓	✓	✓	✓
Province-Year FE	✓	✓	✓	✓	✓	✓	✓
Demographic Controls	✓	✓	✓	✓	✓	✓	✓
Mech.Change in Mayor		✓					
Mech.Change in Leftist Share		✓					
Kleibergen-Paap F	98.24	94.06	96.55	93.20	120.1	94.78	99.07
N	1845	1845	1722	1599	1476	492	1353

Results in the five panels correspond to separate regressions with Total Expenditures, Current Expenditures, Capital Expenditures, Public Goods Expenditures and Total Revenues as the respective dependent variables, in per-capita terms and in €2011. Standard Errors Clustered at the Municipality Level in parentheses. Significance at the 10% level is represented by *, at the 5% level by **, and at the 1% level by ***. All regressions control for the mechanical change in the seat share of Batasuna and for the mechanical change in political competition. Demographic controls include the log of population and its square, the log of the share of young inhabitants and dummies for population thresholds at which revenues from the central or regional government change.

In columns (3) and (4) the year 2003 and the years 2002 and 2003, respectively, are excluded from the sample. Since the parties' law was passed in 2002 and Batasuna was banned in 2003, one possible concern is that that the legal process leading to the ban would have disrupted the normal functioning of city councils for reasons unrelated to changes in political competition or government fragmentation in 2002 or 2003. However, the results hardly change after excluding these years from the sample.

In column (5), the sample includes observations from 1997 to 2008, excluding the last years of the sample where both the revenues and expenditures of city councils fell as a result of the economic crisis. The results are again fairly similar, indicating that the effects are not driven by the financial crisis period.

Columns (6) and (7) report the results separately by election and non-election years. Although for non-election years the effect of absolute majorities on Public Goods and Services Spending is only marginally significant, the results do not change substantially. Interestingly, the difference in spending between absolute majorities and coalition governments seems to be larger in electoral years, which is consistent with the common pool problem being a problem arising due to parties targeting spending to maximize electoral performance.

A final concern about the validity of these estimates is the existence of general equilibrium effects. The existence of such effects, which could arise in the form of spending spillovers (i.e. fiscal decisions of one jurisdiction influencing the fiscal decisions of its neighbors), would violate the Stable Unit Treatment Value Assumption (SUTVA) which is needed to causally interpret the estimates in this paper. This assumption is not testable and estimating whether spending spillovers exist is challenging. While Solé-Ollé (2006a) provides estimates of such spillovers for a sample of Spanish municipalities, finding positive effects mostly in urban areas, recent causal evidence (Isen, 2014) using US data does not find any spending externalities at the local level. In the case that such externalities were important for the Basque Country, this would lead to underestimate the effects of absolute majorities, as municipalities without absolute majorities would reduce their spending in response to the reduction in spending by neighboring municipalities which face an absolute majority due to the ban. However, the fact that such externalities are more likely to arise in urban environments and that the largest municipalities

in the Basque Country i.e. with more than 50000 inhabitants) in the sample are not affected by mechanical changes in absolute majorities suggests that a potential violation of SUTVA is not likely to have a large effect on the estimates presented in this paper.

5 Conclusions

This paper studies the effect of absolute majorities on municipal fiscal policy using data on political and fiscal outcomes of municipalities in the Spanish region of the Basque Country. To identify a causal relation, I use a quasi-experiment given by the ban of Batasuna, a leftist-independentist party in the Basque Country which was outlawed because of its tolerance of terrorism.

I estimate the effects of the ban of Batasuna on a number of political outcomes, such as the seat shares of the main regional and national political parties, absolute majorities and political competition. I disentangle these effects into a mechanical and a psychological component, and I find that they are mostly mechanical. Due to the ban, the political environment becomes less leftist, less competitive and characterized by more frequent absolute majorities.

I rely on the heterogeneity of the within municipality mechanical changes in absolute majorities due to the ban of Batasuna to construct an instrument for absolute majorities, to identify a causal effect of government fragmentation on local government spending. To control for direct effects of the ban on policy outcomes, the variation that I exploit is conditional on the weight that Batasuna had before the ban.

I focus on the effects of absolute majorities total spending, current and capital spending, spending in public goods and services and total revenues. The results show that absolute majorities have a causal effect on current spending, an effect which is large and driven by spending in public goods and services. The estimated effect on capital spending is instead very close to zero, but the estimate is imprecise and this leads to a non significant effect of absolute majorities on total spending. Moreover, revenues decrease accordingly, although not significantly, so that the fiscal balance is not affected. I use pre-ban data and conduct a placebo test to show that the results are not driven by pre-ban differential trends, and I show that the results are robust to the inclusion of controls and hold across a number of sub-samples.

While the results are not fully conclusive, they provide some support to the common pool hypothesis, which claims that coalition governments spend more since they can target spending to obtain electoral benefits, while the electoral costs are spread between the coalition members. Therefore, these results suggest that less proportional rules, which deliver more frequent single-party governments, would lead to a reduction in the size of the public sector. These results are specially relevant for local governments where the alternative to a proportional rule is likely to be a plurality rule with a single district. For larger jurisdictions, where the set of alternatives to a single-district proportional rule is larger, other trade-offs arise and should be considered together with this evidence.

These results qualitatively confirm the findings of Solé-Ollé (2006b) for Spanish municipalities regarding the effects of government fragmentation on spending, although in this paper I use an exogenous source of variation which allows to interpret the estimates as causal effects. The results regarding the effects of absolute majorities are in line with some of the findings of the cross-country literature, but differ from within country studies which use close elections in RDD to estimate the effects of absolute majorities, such as Freier and Odendahl (2012) or Garmann (2012). I argue that this difference can be plausibly rationalized by the LATE interpretation of instrumental variables: the municipalities which have absolute majorities due to the ban of Batasuna would have had more balanced coalitions than the compliers in an RDD, which would have had a coalition where one party holds almost 50% of the seats in absence of treatment and for this reason they are likely to experience larger common problems.

Finally, this paper also contributes to the literature on the mechanical and psychological effects of electoral rules by estimating the mechanical and psychological effects of the ban of Batasuna. Differently from previous contributions, I find that psychological effects are not significant. This is mostly because after the ban, a large fraction of voters (presumably former Batasuna voters) decided to cast a null vote. This result is interesting to the extent that it suggests that the perceived fairness of reforms and long run strategic considerations can have an effect on the short-run reaction of voters and parties to changes in incentives provided by changes in electoral rules.

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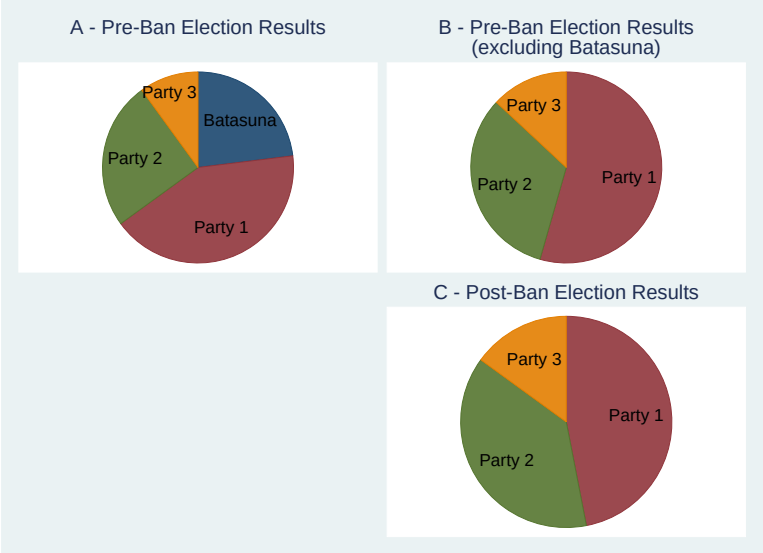
Appendix

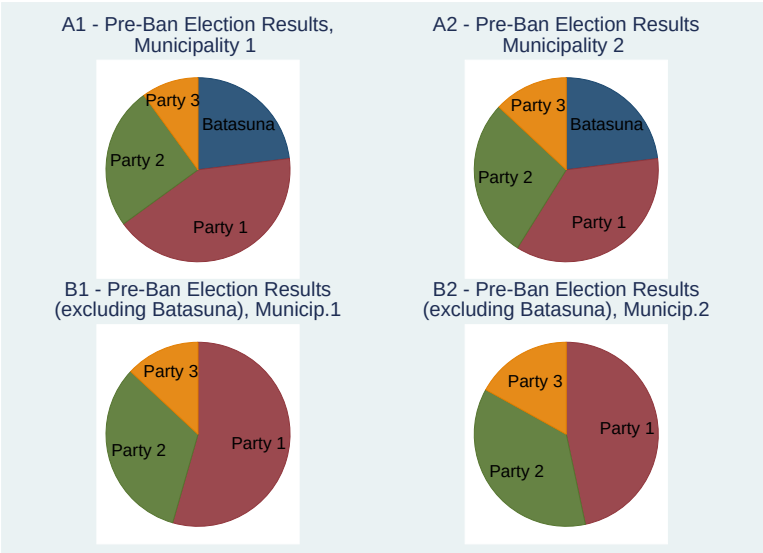
Table 10: Example: Total, Mechanical and Psychological Effects



Mechanical Effect= $B - A$. Psychological Effect= $C - B$
Total Effect= $C - A$ =Mechanical Effect+Psychological Effect

Note: this is just an example in which pre and post-ban elections are identical except for the ban of Batasuna, but in practice this is not the case and Total and Strategic Effects are not identified for a given municipality

Table 11: Heterogeneity in Mechanical Effects, conditional on Batasuna's weight



Mechanical Change in Batasuna's seat share, municipality 1: -0.22
Mechanical Change in Batasuna's seat share, municipality 2: -0.22

Mechanical Change in Absolute Majority, municipality 1: 1
Mechanical Change in Absolute Majority, municipality 2: 0