



# Essays on the Political Economy of Local Corruption

Elena Costas-Pérez

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de Barcelona

PhD in Economics | Elena Costas-Pérez



PhD in Economics

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## Essays on the Political Economy of Local Corruption

Elena Costas-Pérez



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Universitat

# PhD in Economics

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Essays on the Political Economy  
of Local Corruption

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*A mi abuelo Julián*



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# Chapter 1

## Introduction

### 1. Corruption in Democratic Systems

Corruption, defined as the abuse of public office for private gain,<sup>1</sup> has lately become a very prolific research field in both academic and policy areas. Since Mauro's seminal study (1995), which first revealed that a high level of corruption is associated with lower economic growth, several authors have analysed the negative effects of corruption on economic and social welfare levels. For example, corruption is frequently considered to diminish foreign investment and trade (Lambsdorff, 2006; De Jong and Bogmans, 2011), harm public finances (Hillman, 2004), increase poverty and social inequality (Gupta *et al.*, 2002; Canache and Allison, 2005), and threaten the legitimation of political institutions and the stability of young democracies (Rose *et al.*, 1998; Anderson and Tverdova, 2003; Gingerich, 2009).

Considering the main factors driving corruption, some studies have identified democratic systems as a hurdle to political scandals. For example, using several indexes of 'perceived corruption' for the 1980s and 1990s Treisman (2000) finds that a country's long exposure to democracy predicts lower levels of corruption. Also analysing a cross-country panel, Lederman *et al.* (2005) find that political stability under a democratic regimen is a key factor determining the level of corruption and the efficacy of checks-and-balance systems. Advanced democratic institutions tend to be associated with higher transparency and better political accountability mechanisms, which are the channels through which they accomplish lower levels of corruption (see, e.g.,

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<sup>1</sup> This is how 'corruption' is defined by the World Bank (1997).

Goldsmith, 1999; Besley and Burgess, 2002; Adserà *et al.*, 2003; Alt and Lassen, 2008). Factors such as an independent judiciary, press freedom, and free elections are key elements that define an advanced democracy.

The existence of an independent judicial system may prevent the use of corruptive influences by legally punishing corrupt politicians. It also reinforces the application of anti-corruption policies and laws (Rose-Ackerman, 1999; Schwartz, 1999). Additionally, court decisions, as well as the simple intervention of the judiciary, may help to disentangle well-founded from unfounded accusations of corruption, providing citizens with crucial information so they can hold politicians accountable. In the case of the free press, in democratic systems, professional investigative journalism reveals and deters corrupt public practices (Giglioli, 1996). Hence, the pluralism of the press is a useful remedy to the extent that media outlets offer a broad and fair coverage of corruption scandals (Power and Taylor, 2011). Media play a key role in giving citizens the information they need to know who is and who is not corrupt. Through elections, democracies provide voters with the power to punish illicit practices through the ballot-box. Elections are just a mechanism for choosing political leaders but also a tool through which citizens may express their rejection of corruption by not voting for corrupt politicians.

## **2. Corruption Scandals and Electoral Accountability**

Corruption practices may take a broad range of illicit behaviours, from fraud, nepotism or influence peddling to bribery or extortion. In any case, political corruption is characterised by politicians' desire for personal enrichment rather than meeting the demands of their voters (Rose-Ackerman, 1978). That undermines the quality of political representation, generating an incentive for citizens to use elections as a mechanism for holding politicians accountable. It implies that voters reward honest politicians with their re-election, rejecting illicit activities by bringing down corrupt governments.

Several authors have analysed the electoral consequences of corruption in different countries. For example, Reed (1999) observes that 62% of corrupt Japanese legislators were re-elected, and those who were ultimately convicted even experienced an increase in their share of the votes. Chang *et al.* (2010) also find that Italian legislators accused of corruption did not have different re-election rates from others candidate, with the exception of the 1992-94 period (the 11th legislature). Chong *et al.* (2012) use an experimental setting in

Mexico to show that information on corruption does not significantly affect an incumbent's vote share, a similar result to that found for Brazil (Winters and Weitz-Shapiro, 2013). Considering the UK members of Parliament (MPs) affected by fiscal scandals, Eggers and Fisher (2011) found an average loss of about 1.5% points in their share of the votes.

Findings range from no effects of corruption to a quite modest decrease in candidates' vote share, a result that could be interpreted as a cultural acceptance of corruption. Consequently some societies could be more accepting of corruption, since voters do not react to scandals.

However, there are other analyses that find higher levels of electoral punishment of corruption scandals. Peters and Welch (1980) suggest that candidates for the U.S. House of Representatives lost on average around 8% of their votes as a consequence of being charged with corruption between 1968 and 1978. That loss goes up to 10% for the period 1982–90 (Welch and Hibbing, 1997). A remarkable study is the one realised by Ferraz and Finan (2008) for Brazilian municipalities involved in random federal audits. They report a 10% fall in the probability of re-election of mayors involved in those audits. They also find that mayors with audits not reporting significant corruption experienced an increase in their vote shares. Also, the probability of being ousted rises to 30% in those municipalities with a radio station that disseminated information from the audits. Chang *et al.* (2010) found that Italian legislators were only punished in the 11th legislature, a period where media largely cover a major judicial crackdown. Hence, those studies reinforce the idea that voters need to be informed about acts of corruption in order to punish the perpetrators in the polls.

In terms of factors that may affect a country's level of corruption, political decentralisation has been pointed out as a way to increase government accountability and discipline (see, e.g., Fisman, R., and Gatti, R. 2002). In that context, we can expect local corruption to be more punished by voters at the local elections. Voters have more information on local government performance, and it is easier for them to punish corrupt behaviours if responsibilities are divided among several levels of government (Fan *et al.*, 2009). However, we should bear in mind that fiscal and political decentralisation may also be a way to increase corruption. In decentralised systems there is a greater connection between citizens and local officials that may incentivise illicit practices (Tanzi, 1995), yet competition between

autonomous levels of government to extract bribes could lead to ‘overgrazing of the commons’ (Treisman, 2000).

The study presented in Chapter 2 analyses how information on local corruption affected local electoral outcomes in Spanish municipalities between 1999 and 2007, a period characterised by the surge in local scandals. We use a novel database on those corruption cases to estimate an incumbent's vote share equation, accounting for the omission of popularity shocks, something that is lacking in prior studies. As an additional enrichment to the literature we have into consideration the degree of attention that the media devoted to each case and when the judiciary was involved in the scandal, analysing whether voters react to the amount of information and to information regarding the seriousness of the case. Thus, we account for the complementarity of these institutions in the fight against corruption.

### **3. Disaffection and Voter Turnout**

When analysing the effects of corruption in the polls, we must remember that electoral outcomes are the result of who votes and for whom. Hence, in order to evaluate the overall electoral impact of scandals, electoral turnout must be also taken into consideration.

Abstention is one way in which some individuals respond to corruption scandals. Several reasons could be behind this reaction. Corruption harms citizens’ faith in democratic principles, affecting their trust in the political institutions and the democratic processes. As has been mentioned, democratic systems offer different mechanisms to keep politicians accountable (i.e., independent judiciary, press freedom or free elections), which should result in lower levels of corruption. The appearance of an abundant number of scandals, or the fact that several governments are involved in dishonest practices, may make citizens doubt the utility of the democratic system to get rid of corruption. However, corruption scandals may also generate a ‘mobilization effect’ on turnout if citizens to go to the polls to punish/support the malfeasant politician.

As a consequence of the ‘disaffection’ with a democratic system that does not help to keep governments accountable, some citizens may decide to withdraw from the electoral process. Using experimental evidence for Mexico, Chong *et al.* (2011) find that access to information on corruption reduces voter turnout. They also find that scandal information negatively affects voters’ identification

with the corrupt incumbent's party. However, the data they use do not allow them to determine whether the level of individual partisanship affects electoral response to corruption. Individuals with lower partisan leanings tend to be more independent of the political system, being more affected by shocks such as occasional episodes of corruption (Sobbrio and Navarra, 2010). Hence, we would expect these voters to be more likely to abstain as a consequence of scandals.

Conversely, political parties' core supporters have stronger levels of partisanship, and are less likely to defect at the elections (Chong *et al.*, 2012). In fact, instead of being disaffected by the scandal, core supporters could be 'mobilised' by the party to support the accused politician. Alternatively, followers of the parties opposing the accused incumbent could see the opportunity to punish corruption.

Hence, to determine the impact of scandals on electoral participation several effects come into play. There are not many studies in the literature that analyse the effect of corruption on voter turnout. For example, for the US Peter and Welch (1980) find no effect of scandals on turnout. Drawing on public opinion data for Mexico, Dominguez and McCann (1998) find that higher perceptions of corruption decrease the likelihood of voting, a pattern that seems to apply to all Latin American countries (Davis *et al.*, 2004; Morris, 2004). Kostadinova (2009) shows that perceptions of widespread corruption send some voters to the polls in post-communist countries while discouraging others from voting. However, her study analyses perceptions, which casts some doubt on the model's exogeneity given their correlation with voting decisions. There are also aggregate studies, such as those by Stockemer (2013) and Stockemer *et al.* (2013), which find that corruption is negatively related to electoral participation. However, all these studies present ad hoc explanations of changes in turnout, without following a plan to identify the disaffection or mobilisation effects that scandals may have on electoral participation.

Another drawback of these studies is their failure to consider that corruption at different times may have different effects on voters' participation decisions. Recent cases of corruption may be easier to remember, whereas corruption in the past could be forgotten (Fair, 1978; Kramer, 1971). Also, repeated corruption scandals could generate a higher disaffection effect with the electoral system (Kostadinova, 2009).



Chapter 3 studies how corruption affects voter turnout using information on local scandals occurring in Spain between 1999 and 2007 and survey data. This analysis has the advantage over the previous literature as it relies on a research strategy for differentiating between the ‘mobilisation’ and ‘disaffection’ effects of corruption on voter turnout. To the best of our knowledge this is the first study that is able to analyse empirically how these two effects are influenced by partisan leanings or corruption at different times, untangling the conclusions of earlier studies.

#### **4. Media Coverage of Corruption Scandals**

So far we have considered how voters may react to corruption either by not voting for the accused incumbent or by not voting at all. However, voters cannot react to corruption if they do not know that corruption has occurred. Dishonest governments do not have an interest in informing the electorate about their illicit activities, and if voters are not aware of their politicians’ scandals they cannot vote against them (Rose-Ackerman, 1978). Since media outlets are the way in which most citizens find out about their politicians’ activities, we would expect media to adopt a watchdog role. Hence, to guarantee the efficiency of elections as an accountability tool, media outlets need to provide fair and reliable coverage of scandals. We must remember that their failure to provide an unbiased coverage of corruption will affect the information citizens have, calling into question the efficiency of elections as a way of keeping governments accountable.

Media outlets generally display a profit-maximisation behaviour when they choose the amount of news devoted to corruption cases (Besley and Prat, 2006). However, they may also face political incentives to bias the coverage of such scandals. For example, if media owners present an ideological slant they could decide to bias the coverage of scandals to follow a specific political agenda. That behaviour could also correspond with the ideological preferences of their readers. Thus, media outlets could bias information on corruption to increase their sales (Gentzkow and Shapiro, 2006).

Another factor that could make media bias the coverage of corruption is the pressure exerted by the government involved. Corrupt politicians would like to control the information published by media, in order to avoid the electoral punishment of corruption in the polls. Hence, they may try to buy media

outlets, which in turn make a profit from their collaboration with the government (Besley and Prat, 2006).

Both ideological slant and media capture may result in distortion of the amount of news published on corruption, compare to the baseline situation where media give an unbiased coverage of the scandals. However, the literature has largely analysed these influences as two independent factors in the study of media bias regarding corruption scandals.

Considering the coverage of political scandals by US newspapers during the 2000s, Puglisi and Snyder (2011) find that ideological preferences reflected in the editorials are highly correlated with partisan bias. They also show that in the coverage of local scandals readers' ideological preferences explain that bias. Gentzkow and Shapiro (2010) also verify that US newspapers exhibit a systematic ideological bias which is mainly explained by the ideological position of their readers. If we turn to media capture, Di Tella and Franceschelli (2011) find that Argentinian government advertisements implied an important reduction in the media coverage of corruption scandals. However, for the US between 1869 and 1928, Gentzkow *et al.* (2014) find evidence of the limited influence of incumbent party on the partisan composition of the press.

Chapter 4 studies the media coverage of 165 Spanish local scandals spanning between 2004 and 2007 by national and regional newspapers. It analyses the incentives that media outlets may have to bias the information they report on those scandals. The literature has identified ideological slant and capture on the part of the government as two political elements that may bias media coverage of scandals. The study presented in chapter 4 is an improvement respect previous papers since it analyses both ideological slant and media capture as complementary factors rather than independent drivers of media bias. As an additional contribution we also consider the role of government's popularity on the coverage of scandals.

## **5. The Spanish Setting**

The three studies presented in this dissertation draw their main conclusions from Spanish data. After decades without relevant cases of local corruption, in the late nineties the housing boom fuelled a growth in scandals related to land use regulations. That wave of corruption cases was largely unveiled and investigated by media, a highly politicised sector in Spain. That provides us

with the perfect setting to test our hypotheses regarding the electoral response of citizens to scandals and how media outlets cover corruption cases.

### **5.1. Corruption Scandals**

During the early years of democracy (1979-99), few local corruption cases were reported in the Spanish media, the population not being especially concerned about the possible lack of accountability (Jiménez and Caínzos, 2006). The situation began to change in 1995, with the switch in the housing market situation. The number of corruption cases rose significantly in the late nineties, when the Spanish media started unveiling scandals related to land use regulations, and the judiciary started several investigations. Indeed, the number of cases peaked around the 2007 local elections. Spanish newspapers played a key role in unveiling local corruption scandals, providing daily reports on those involving the incumbent parties. After the local elections of 2007, and the beginning of the economic crisis, the collapse of the housing market reduced the opportunities for corruption.

### **5.2. Local Politics and Land Use Regulations**

The vast majority of the aforementioned wave of local corruption scandals had in common their link with the real estate market. In Spain, land use regulations were an area especially sensitive to corruption during the years of the housing boom. Several of the cases analysed throughout this thesis involved local politicians taking bribes in return for introducing changes in municipal land use plans (i.e., changing the permitted land uses or allowing for more development). Spanish local councils are responsible for the definition of urban use plans. These plans define the municipalities' use of lands and are designed and approved by the city council. They assign the use of each area (i.e., residential, commercial, or industrial), set the maximum floor-to-area ratios and designate some areas as green zones or public facilities, among others (Fundación Alternativas, 2007). In that context, mayors hold a high degree of independence regarding amendments of the land use regulations. Hence, they have wide discretionary authority as regards urban planning decisions, an important source of political corruption.

For studying the efficiency of elections as an accountability tool, the typology of Spanish scandals provides an additional advantage. Since local governments have the ultimate responsibility for land use regulations, voters can visibly

recognise the incumbent as being guilty of land use-related scandals. That eases the identification of the effect of these scandals on electoral outcomes.

### **5.3. The Media Market**

The media market in Spain constitutes a pluralist and polarised mass media system (Hallin and Mancini, 2004), where political parties have a close relationship with media outlets, and newspapers exhibit low circulation rates. Nevertheless, Spanish newspapers have an important role as political agenda-setters and, as noted, they are the most active actor in terms of unveiling corruption scandals.

Spanish press legislation has not fixed any limit on newspaper ownership, so media outlets exhibit a high degree of ownership concentration among editorial groups (Jones, 2007). Regarding public intervention in the media sector, the Spanish financial model has changed considerably in recent years. Since the 2000s regional governments have assigned almost all public funds to media outlets; for example, in the form of language protection grants. Yet public advertising and regulatory measures constitute a relevant form of informal press subsidy, often used by the Spanish regional governments as a way to exert political pressure (Hallin and Mancini, 2004).

The specific characteristics of the Spanish media market will be relevant in order to analyse the political incentives media outlets have to report a bias coverage of corruption scandals. So far the main studies on media bias have been mainly applied to the US (i.e., Puglisi and Snyder (2011) or Gentzkow and Shapiro (2010)). Thus, the particular institutional traits of that media market may be driving previous findings. The analyses included in this dissertation aim to provide new evidence on how media outlets inform about corruption cases in a highly polarised media market.

## **6. Databases and Methods**

One of the main advantages of this dissertation is the use of a novel and rich database with information on corruption scandals that affected Spanish local governments during the period 1996–2009. Modifications of the same database are used along the three studies presented in Chapters 2, 3 and 4. The main source of that data is a study conducted in 2007 by the Fundación Alternativas. Following an important wave of corruption scandals unveiled by the media, this Spanish think tank commissioned a survey to record all

corruption scandals between 2000 and 2007 (see *Fundación Alternativas*, 2007). They hired a journalist in each Spanish province to compile all corruption-related stories involving municipalities in the province between 1 January 2000 and 1 February 2007 that appeared in national, regional or local newspapers and related to both present and past. All those scandals were related to land use regulations, such as charges of bribe-taking in exchange for amendments to land use plans. The search found 663 local cases of corruption since 1991. We also verified that our data did not present a partisan bias by comparing that information with other corruption maps compiled by the media outlets of different political ideologies. The percentage of corruption cases by political party did not differ significantly across these databases, verifying that our compilation of cases was not ideologically biased. We completed the database of corruption scandals with Internet-guided searches in MyNews (<http://mynews.es>), a paid digital information management service covering all national and many of the regional newspapers. We found 20 additional cases prior to 2000 and 203 post 1 February 2007.

First, for the study presented in Chapter 2, we consider the 565 municipalities affected by corruption for two different periods: from July 1999 to May 2003, and from May 2003 to May 2007. We only consider those scandals that were published in the same period in which they occurred. That prevents us from using in the analysis corruption cases that did not affect the mayor in office. For the same reason we do not include scandals that affected parties not in power. The information in our database also includes the number of news stories published. However, it is important to mention that neither the *Fundación Alternativas* analysis nor our own additional Internet-based searches aimed to account for the media coverage of corruption scandals. Hence, the objective of the news search was to identify the corruption scandals, but not to gather all the news published on each scandal.

Second, regarding the corruption cases analysed in Chapter 3, we make use of a list of 291 municipalities obtained after applying a matching strategy to the database used in the study in Chapter 2. To conduct a survey on trust that also collected information on individuals' electoral participation for several Spanish municipalities, Solé-Ollé and Sorribas-Navarro (2014) selected a sample of 160 treatment municipalities and 131 controls for scandals between 1999 and 2009. That sample was representative with regard to population sizes, the geographical location of the municipalities and the timing of the corruption scandal. Using that database we selected for our study purposes 122

municipalities that had experienced at least one corruption scandal between 1999 and 2007 and 97 control municipalities that had not. These are the 219 municipalities considered in the analysis of corruption scandals and voter turnout included in Chapter 3.

Finally, in order to perform the analysis explained in Chapter 4, we considered the aforementioned matched sample of 160 municipalities affected by scandals between 1999 and 2009. The substantial wave of local corruption scandals experienced in Spain peaked before the local elections held in May 2007. For that reason we focused our analysis on scandals up to that point. Also, to avoid the influence that national corruption cases might have had on the coverage of local scandals we restricted our sample to those cases published after the general elections of March 2004. Thus, from the original list of 160 municipalities we ended up with 93 municipalities which had experienced at least one local scandal between March 2004 and May 2007. For all the scandals in those municipalities we compiled all the news reports published in the Spanish newspapers, accumulating more than 5,500 articles.

Through the different chapters presented in this dissertation several empirical methods are applied to identify our main findings. In Chapter 2 we estimate an incumbent's vote share equation for the 2007 and 2003 municipal elections. Most previous studies on this topic fail to account for the omission of popularity shocks. We use a 'difference-in-differences' (DD) approach to describe this problem. Hence, we estimate the effect of corruption scandals on the change of the incumbents' vote share between two consecutive elections, comparing them with those municipalities that did not experience any scandal. In Chapter 3 we take the advantage of a database selected by matching methods that allows us to identify a control group for those municipalities affected by corruption, by selecting 'twin' municipalities that did not experience scandals in the period analyses. While increasing the transparency of our research design, the matched sample also improves the identification of the effect of corruption scandals on voter turnout, balancing the distribution of the covariates in the two subsamples. In Chapter 4 count models are used to estimate the causal effect of media bias on the coverage of corruption scandals. We address the potential omitted variable bias by including either fixed-effects or a set of scandal specific controls in the estimations.

## **7. Dissertation Structure**

The analyses undertaken in the thesis are presented in Chapters 2, 3 and 4 of this dissertation. Chapter 5 describes the main conclusions.

Chapter 2 describes the effects of the availability of information about corruption scandals on electoral outcomes. Drawing on Spanish voting data for the local elections, the study analyses how corruption affected electoral outcomes for the mayors involved in the scandals. The results suggest that information on scandals modifies voters' beliefs regarding the prevalence of corrupt activities. For the 2007 elections, our findings reveal that the mean vote loss after a corruption scandal is around 4% and that this effect goes up to 9% in those cases given wide attention by the media. The impact in the 2003 local elections is smaller and our findings are less precise. We also consider information regarding the degree of judicial involvement for a subsample of our scandals. In those cases the vote loss rose to 14% if the judiciary initiated an investigation or the incumbent was prosecuted. However, we find no punishment at all in relation to the cases dismissed or those that did not lead to further judicial intervention. That result suggests that an independent judiciary helps citizens to disentangle cases of founded vs. unfounded scandals, making voters aware of corruption.

The study presented in Chapter 2 has the advantage over previous papers in that is able to measure the degree of attention that the media devoted to each case and the quality of the information provided. It also addresses the endogeneity presented in other studies by using a DD method to estimate the effect of experiencing a corruption scandal on the variation in incumbents' vote share.

From results described in Chapter 2, we can say that voters are not immune to local corruption scandals. However, the Spanish case also reveals that corrupt mayors are barely affected by these scandals in terms of their re-election rates. Specifically, around 70% of mayors who faced some kind of corruption accusation were re-elected in the 2007 local elections (Fundación Alternativas, 2008). That result has sometimes been considered as an indicator of the cultural acceptance of corruption, a hypothesis that considers some societies more tolerant of corruption scandals. In that respect, we suggest that, rather than not voting for the accused candidates, some individuals could be reacting to corruption by not voting at all. In such cases, scandals would affect electoral outcomes in a broader way than the incumbent's vote share. The

relationship between corruption scandals and voters' abstention is explored in Chapter 3.

Chapter 3 analyses how scandals might modify individual's voting behaviour. As we saw in Chapter 2, if elections act as an effective accountability tool, individuals who feel betrayed by a corrupt politician may cast a ballot to remove him or her from power. An alternative option is party members and sympathisers being asked to mobilise to vote for the accused politician. Second, corruption may also be a drain on voter turnout. Corruption might harm citizens' trust in local and national politicians, generating cynicism and voter apathy. Our research strategy draws a necessary distinction between the 'mobilisation' and 'disaffection' effects of corruption on voter turnout.

Using survey data for the 2007 local elections, in Chapter 3 we study whether these two effects depend on individuals' partisan leanings. This is the first study, to the best of our knowledge, which empirically analyses such effects. We also test the impact of corruption at different times on voter turnout, being able to untangle conclusions drawn in earlier studies that did not differentiate voter responses on the basis of the timing of scandals. Our findings suggest that the disaffection effect is far stronger than the mobilisation factor. On average, corruption scandals make individuals 1.5% less likely to vote. Also, repeated corruption cases increase abstentionism. Regarding partisan leanings, independent voters – those with no political attachments – are the only group of individuals who withdraw from elections as a consequence of corruption. The incumbent's core supporters fail to recognise corruption within their party, and both independent voters and the opposition's core supporters report higher corruption perceptions in response to a scandal.

Results from Chapter 3 allow us to reinterpret explanations that attribute the absence of notable electoral punishment of corruption to cultural explanations. The fact that scandals lessen voter turnout confirms the idea that the actual impact of corruption on electoral outcomes is much higher than the vote loss for the accused incumbent.

As observed, a key factor in the satisfactory functioning of democratic systems is the existence of a free press that can report and unveil corruption scandals. Thus, to guarantee the efficiency of the elections as accountability tool media outlets should report reliable information on corruption, do not biasing the coverage of the scandals. Chapter 4 addresses that issue, analysing the political



factors that may bias newspaper coverage of 165 local corruption scandals occurred in Spain between 2004 and 2007. Specifically, we consider two different situations: first, media outlets are ideologically slanted if they report less news on those local scandals that affect mayors from their same ideology; second, media will be captured by the government if newspapers publish less news on those scandals that involve the regional incumbent's party.

We find that newspapers publish half of the news on a local corruption case if the editorial's ideology is the same as that of the mayoral party involved in the scandal. Also, readers' ideology does not seem to drive media bias in Spain. The effect on the reduction of coverage is higher when media capture is considered, and our findings reveal that this capture effect dominates newspapers' ideological slant.

The study described in Chapter 4 makes several contributions to the literature on the media coverage of political scandals. First of all, we are the first to consider slant and capture at the same time. Thus far, the literature has considered ideological slant and capture as two independent driving factors of media bias in the coverage of corruption scandals. We are also able to identify how the competition level at the local elections may affect both ideological slant and media capture.

Our results reveal that ideological slant makes media outlets reduce their coverage of a corruption scandal. Newspapers publish half of the news on a local corruption case if the editorial's ideology is the same as that of the mayoral party involved in the scandal. We do not find evidence that readers' ideology drives media slant in Spain. Considering media capture, the effect on the reduction of news about a scandal is higher when the scandal involves the party in office at the regional level. Hence, we find evidence that incumbent regional governments influence the press. It seems from our findings that the capture effect dominates newspapers' ideological slant.

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## Chapter 2

### Corruption Scandals, Voter Information, and Accountability

#### 1. Introduction

Corruption is a complex phenomenon, and its negative political and economic consequences have been widely analysed in recent years. Corruption is said to erode trust in government and the legitimacy of political institutions (Anderson and Tverdova 2003; Bowler and Karp, 2004) and also to harm public finances (Hillman, 2004), deter foreign investment and trade (Wei, 2000; De Jong and Bogmans, 2010) and reduce growth (Shleyfer and Vishny, 1993; Mauro, 1995; Méndez and Sepúlveda, 2005). Institutions such as the World Bank identify corruption as being the single most important impediment to development. Given the potentially devastating impact of corruption, a better understanding of the institutions that might help to mitigate it seems to be crucial. One of the main findings from recent studies of the institutional determinants of corruption (Treisman, 2000; Lederman *et al.*, 2005) is that democracies are less corrupt than other political systems. The key ingredients of democracy, including party-based competition, free elections, press freedom, and an independent judiciary, are negatively correlated with corruption (e.g., Goldsmith, 1999; Besley and Burgess, 2002; Adserà *et al.*, 2003; Alt and Lassen, 2008; Feld and Voigt, 2003).

The basic mechanism ensuring democracy works is the capacity voters have to hold politicians accountable, ousting them from office if they have evidence of corruption, and rewarding honest behaviour with re-election. Yet, most of the empirical studies addressing this question report just modest effects of corruption on a candidate's vote. For example, Chang *et al.* (2010) find that Italian legislators went unpunished during most of the post-war period. In a

case study conducted in Japan during the same period, Reed (1999) finds that the electoral punishment of legislators indicted for corruption was also quite modest. Similar results were found by Peters and Welch (1980) in their study of the effects of corruption charges on the re-election of candidates to the U.S. House of Representatives. They estimate that candidates accused of corruption during 1968-78 lost on average around 8% of the vote. An update of this study for the period 1982-90 (Welch and Hibbing, 1997) found somewhat higher results, with an average vote loss of 10%, and lower probabilities of re-election for corrupt politicians. In their analysis of the congressional check-kiting scandal in 1992, Dimock and Jacobson (1995) find that most incumbents managed to be re-elected, albeit with a reduced vote share of around 5%.

One prominent exception to this pattern of results is the article by Ferraz and Finan (2008), which examines the electoral prospects of corrupt mayors in Brazil. They use random local government audits conducted before the election to study whether the disclosure of information about corruption affected the incumbent's vote. Their results indicate that mayors identified as being corrupt in this way might lose from 10 to 30% of their vote share and see their re-election chances reduced by as much as 17%. Mayors with audits not reporting significant corruption saw an increase in votes and re-election probabilities. They also find that the punishment is much higher (the probability of being ousted rising to 30%) in municipalities with a radio station that disseminates this information. According to this study, the electoral consequences can be sizeable when voters are informed about corruption acts, and this information provides conclusive evidence of corruption.

Other papers have already suggested that the severity of the electoral punishment might depend on the information voters have over corruption or, more generally, over government performance. For instance, the paper by Chang *et al.* (2010) finds that Italian legislators were only punished after considerable media coverage following a major judicial crackdown during the Italian 11<sup>th</sup> legislature. The papers by Brender (2003) and Berry and Howell (2007), in their respective analyses of the effects of public service performance of voting in Israel and the US, also find that punishment only occurs during terms with wide media coverage of the issue. Recent field experiments, where randomly selected subjects are provided with information about incumbent's corrupt acts (Chong *et al.*, 2012) or performance (e.g. Wantchekon, 2009; Banerjee *et al.*, 2011) confirm the impact of information on vote decisions. A

few papers focus directly on the effects of media coverage on accountability. For example, Strömberg (2004a) finds that US counties with a radio station received more New Deal funds, and Snyder and Strömberg (2010) find that in House districts with more press coverage voters are better informed about the activities of their representative and, in turn, representatives tend to work harder for the district.<sup>1</sup>

Note, however, that none of these papers is really able to measure the degree of attention that the media devoted to each case and the quality of the information provided. As we explain in detail below, this chapter is able to improve on this by using a novel and rich database with information on recent corruption scandals that affected Spanish local governments. The database includes information about press coverage of each scandal (i.e. number of news) and also about the information supplied by the press regarding the intervention of the judiciary (e.g. whether there are judicial charges or not, or whether the case has been dismissed or ended with a conviction). There are several justifications to our decision to focus on newspapers reports. Firstly, corruption scandals in Spain were mainly brought to light by newspapers. Press coverage provides thus a good metric of how much voters know about a case of alleged corruption and also about what they know about the case and when they received the information. Secondly, the extent of media coverage can be also considered a measure of the seriousness of the scandal. Since newspapers main objective is to sell newspapers, they use to focus more on cases that are potentially more shocking and morally unacceptable. Because of political bias (e.g., Puglisi and Snyder, 2008; Larcinese *et al.*, 2011), they might occasionally publish weakly founded corruption scandals, but the reputation of a newspaper would be seriously undermined if he insists on this route with additional news (Puglisi and Snyder, 2011). Although only available for a smaller sample of municipalities, the information regarding the stage of judicial

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<sup>1</sup> A related literature on retrospective ‘economic voting’ discusses whether voters are rational, i.e. use the right ‘cues’ to evaluate the incumbent. On the one hand, there is evidence, for example, that citizens blame incumbents for poor economic performance that is out of their control (Wolfers, 2002) or reward them for positive events completely unrelated to the incumbent or to the policy (Healy *et al.*, 2010). There is also evidence that voters are ‘myopic’, focusing only on the short run impact of policies (see Healy and Malhotra, 2009, on the effects of policies to prevent and mitigate the effects of floods). On the other hand, there are also some papers that show that voters are able to disentangle between factors that are under the control of the incumbents and those that are not (see, e.g., Alesina *et al.*, 1997, and Brender and Drazen, 2008, on economic voting, and Healy and Malhotra, 2010, on voters’ decisions after tornadoes).



intervention is also a promising novelty, for several reasons. Firstly, it is very difficult for a given newspaper to ignore or distort this type of information once the scandal broke. Second, given the credibility of the Spanish judiciary, the knowledge about these details has the potential of allowing the voter to disentangle cases of founded vs. unfounded corruption.

Drawing on Spanish data for the 2007 and 2003 municipal elections, the present study analyses the effects of corruption on local electoral outcomes. Taking press news published between 1996 and 2009, we construct a novel database on corruption scandals and news related to bribe-taking in exchange for amendments to land use plans that allow more development to take place. The main source of this data is the ‘Fundación Alternativas’, a Spanish think tank, which in 2007 commissioned a survey that recorded all corruption scandals as published by national, regional and local newspapers during the period 2000-2007. This database was complemented by a bibliographical news search for the years before and after this period. Thus, the database contains 565 municipalities with at least one news item of corruption during the period July 1999 to May 2007 (which covers the two terms eventually analysed here) and 5,144 news stories about corruption. The richness of the database allows us not only to evaluate the average impact of corruption scandals on voting outcomes, but also to assess the role of press coverage (e.g. number of news stories, type of newspaper). A second survey commissioned by the same think tank identified a subset of the scandals arising during the 2003-07 term (i.e., 133 out of the 241 scandals published during this period and that affect the current incumbent) with some type of intervention by the judiciary.

We use the corruption data to estimate an incumbent’s vote share equation for the 2007 and 2003 municipal elections. Most previous studies on this topic fail to account for the omission of popularity shocks. We use ‘difference-in-differences’ (DD) to attenuate this problem. The DD method estimate the effect of experiencing a corruption scandal on the variation of the incumbents’ vote share between two consecutive elections, compared with municipalities without any scandal. Our results for the 2007 elections suggest that the mean vote loss after a corruption scandal is around 4% and that this effect is larger in cases receiving wide attention by newspapers (up to 9%). The impact in the 2003 elections is smaller and our findings are less precise. Using a reduced sample for the 2007 elections, we are also able to document that the vote loss can rise to 14% when we consider cases in which the incumbent has been charged with corruption and press coverage has been extensive. However, we

find no punishment at all in cases dismissed or with reports to the courts which did not lead to further judicial intervention. Overall, the results suggest that information provided by the press modifies voters' beliefs regarding the prevalence of corrupt activities and, where accompanied with details regarding the degree of judicial involvement, it helps them disentangling cases of founded vs. unfounded corruption.

The rest of the chapter is organized as follows. In the next section we provide the basic background to the Spanish case, briefly describing the recent upsurge in corruption and the role that land use planning has played in it. We also present the details about the construction of the database. Section three describes our empirical strategy and section four presents the results. Section five concludes.

## **2. Background and Data**

### **2.1. Corruption in Spain**

#### *2.1.1. The Recent Corruption Upsurge*

In the first two decades following the restoration of Spain's democratic local governments (1979-99) not much concern was expressed in the media, among the political elite, or the population in general to the lack of accountability or possible cases of corruption (see Jimenez and Caínzos, 2003). The situation began to change after 1995, with the switch in the housing market situation, but it did not really take off until 1999. Before 1999, there were just 46 cases of corruption, and this number jumped to 288 during the term 1999-2003 (see next section for a discussion of the data sources). Corruption did not go into decline after this, with 408 cases occurring during the 2003-07 term. During the period that runs from the June 2007 elections to November 2009, 72 new cases appeared. The reduction in the rate of new cases might be related to the crisis in the real estate market, which began in 2007 and became more intense in the years that followed.

#### *2.1.2. Land Use Regulations*

The fact that most local corruption scandals involve bribes received in exchange for amendments to the land use plans suggests that the specific traits

of this type of regulation have been important in this surge, especially when combined with the massive boom in real estate.<sup>2</sup> Land use regulations in Spain adhere to an extremely interventionist and highly rigid system (Riera *et al.*, 1991). The main tool employed by the government is town planning, which is essentially a municipal responsibility. Municipalities draw up a ‘General Plan’ that fixes a ‘development border’, a line between plots of land on which developers are allowed to build and plots where development is prohibited. In periods of high demand this border creates a rent differential which might fuel the bribes developers are willing to pay to local politicians in exchange for shifting this border to their advantage.<sup>3,4</sup> The ‘General Plan’ includes very detailed regulations regarding many other aspects: land zoning (residential, commercial, industrial), maximum floor-to-area ratio for each plot, reservation of land for streets, green spaces and public facilities, etc. The discretionarity of local governments regarding these other margins has also been a source of political corruption. Many of the recent cases of corruption in Spain are consistent with these explanations. Thus, there are a large number of cases involving local officials that wrongfully allowed huge tracts of land to be developed, that amended the land use plan so as to permit higher construction densities in already developed land, or that allowed building in places where it had been previously prohibited (Fundación Alternativas, 2007).<sup>5</sup>

### *2.1.3. Local Politics*

Municipalities are the main tier of local government in Spain. The members of the municipal council are elected from a closed list using a proportional system (i.e., the d’Hondt rule with a 5% threshold). The mayor is then elected by a

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<sup>2</sup> See Fundación Alternativas (2008), Transparency International (2007) and Nieto (1997), for a discussion of other possible causes of corruption in Spanish local governments.

<sup>3</sup> The idea that a government monopoly in the control of regulations can create rents and that these can in turn give incentives for corrupt behaviour can be found in many prominent studies on corruption (see, e.g., Rose-Ackerman, 1978, and Ades and Di Tella, 1998).

<sup>4</sup> See Solé-Ollé and Viladecans-Marsal (2012) for an analysis that shows that political competition has an impact on the decision of local governments to expand or not this development border. Glaeser *et al.* (2005) and Hilbert and Robert-Nicoud (2010) are other papers that discuss the lobbying engaged in by developers to influence zoning decisions.

<sup>5</sup> Many of the cases are also related to questionable contracts between developers and the city council, as a recent report has identified (Transparency International, 2007). Finally, in some cases corruption arises because land owned by the municipality is sold at below market prices or because payments made by developers for basic infrastructure are lower than those provided for under the law. This type of corruption is similar to that described by Cai *et al.* (2009) in Chinese land market auctions.

majority of the council (see Colomer, 1995). The council operates as a small representative democracy, and has to reach a majority vote to pass the initiatives and regulations proposed by the mayor, who acts as the agenda-setter. The discipline enforced by Spain's parties' means that the chances of amending the mayor's proposals are quite low when the mayor's party or coalition controls a majority of the seats. Direct democracy mechanisms are not used, participatory channels are quite limited, and the transparency of many government decisions is low. This means that a resident's ability to monitor performance has traditionally been limited to casting a vote every four years.

This is also true in the case of land use regulations. Both the plan and its amendments have to be approved by a majority of the council, with no much direct input of the citizenship. In theory, a number of participatory and transparency requirements apply to local planning. These requirements are stricter in the case of the initial introduction of the plan, but the actual degree of transparency of the system is very much dependent on the will of local politicians. Moreover, to implement the plan, local officials can resort to a variety of means to introduce the desired amendments, without these changes having to come under much scrutiny from residents or the media.<sup>6</sup> There is a general agreement that this state of affairs has facilitated the recent upsurge in political corruption (see Transparency International, 2007).

## 2.2. The Corruption Database

Empirical studies of corruption use at least three different approaches to obtain the data they require. Most use either *perceptions* of corruption (see, e.g., Wei, 2000) or draw on data from public records related to corruption *charges* (see, e.g., Glaeser and Saks, 2006; Alt and Lassen, 2008). Given the difficulties of gathering data of this kind, either for long periods or at the local level, some authors have used bibliographical and/or internet-guided searches (Glaeser and Goldin, 2004; Saiz and Simonshon, 2011). Besides overcoming problems of availability, this approach has a number of additional advantages: it accounts for corruption only if voters had access to information about it, and the number of news or citations provides a natural way to measure both the

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<sup>6</sup>This is the case, for example, of the contractual arrangements made between local governments and developers (the so-called 'Convenios Urbanísticos'), which are permitted under Spanish law. Such contracts might modify the status of a plot, its floor-to-area ratio, or involve the renegotiation of developers' fees.

occurrence of corruption and its intensity. We, therefore, take this approach in this chapter. We had access to a database of corruption scandals compiled by the Fundación Alternativas (2007), a Spanish think tank. In 2007, shortly after the surge in corruption scandals that occurred in 2006, this organization commissioned a survey of local corruption in order to gauge quantitatively the relevance of the phenomenon. They hired a journalist in each Spanish province with the task of compiling all corruption related stories involving municipalities in the province between 1 January 2000 and 1 February 2007 that appeared in national, regional or local newspapers, and related to this period or to the past. The search found 663 cases of corruption occurring since 1991.

Before deciding to use this database we ran various verifications of its reliability. Fundación Alternativas has close links with the socialist party (PSOE), and we were concerned about a possible partisan bias of its database. Our suspicions were roused by the fact that the main left-wing newspaper in Spain ('El País') began a crusade in 2006 against corruption, with daily news on corruption scandals involving the main right-wing party (Partido Popular, PP). To check for this possibility, we compared this database with another one compiled by the right-wing newspaper 'El Mundo'.<sup>7</sup> The comparison showed that the proportion of corruption scandals by parties was not statistically different in the two databases.<sup>8</sup> It seems, therefore, that Fundación Alternativas' database (2007) is not biased in its coverage of the scandals involving different parties. Indeed, in the description offered of the procedure employed in its data gathering, the institution states that the choice of journalists compiling the cases in each province included people working for both left and right-wing media outlets.<sup>9</sup>

A further concern is the coverage provided by our database for the pre-2000 period and for the year 2007 given that the local elections took place in June

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<sup>7</sup> This database covers the same period as that of the Fundación Alternativas (2007) and we find that the number of reported scandals is similar. However, it only provides information as to whether a scandal happened or not, but says nothing about the number of news reports it attracted and sheds little light on the other case details that we use in this study.

<sup>8</sup> These data and the statistical test have been omitted for reasons of space but are available from the authors upon request.

<sup>9</sup> Of course, there is the possibility that this database is biased in terms of counts of news or of qualitative information recorded, but we are not able to check it. Also, this does not mean that the coverage of corruption by specific Spanish newspapers is not biased. We have no means of checking for this with our data.

of that year. Just 26 of the cases identified occurred before 2000, which could be due to the fact that most news were published near the date when the alleged corruption occurred or to the fact that there were virtually no cases of alleged corruption before that year. Moreover, just nine cases occurred in 2007, which is the result of the fact that only one month was examined in that year. Since the period we are interested in runs from May 1995 to June 2007, we completed the database with internet-guided searches in MyNews (<http://mynews.es>), a paid digital information management service covering all national and many of the regional newspapers.<sup>10</sup> We screened the periods that run from 1 January 1996 (when the service's coverage starts) to 1 January 2000 (the starting date for the other survey), and from 1 February 2007 to 1 November 2009 (the day this search was performed). We conducted a search for news containing the word 'corrupción urbanística' (i.e. corruption related to land planning) and each of the more than 8,000 names of the Spanish municipalities. We found 20 additional cases prior to 2000 and 203 post 1 February 2007, 131 of which occurred before the June 2007 elections.<sup>11</sup> Thus, the overall number of cases in the database is 814, while the number of cases during the two terms of office studied (July 1999 to May 2007) is 696 (see Table 1).

Both databases also provide data on the publication date of each news item. The number of *scandals* during these two terms, defined as cases for which at least one news item was published during the term of office, is 565 (see Table 1). This number is lower than the number of cases of alleged corruption based on occurrence, because some of the cases were published in the term following that in which the alleged corruption was perpetrated. Given that we are interested in how incumbents are affected by the corruption scandals in which they were involved, we focus on scandals rather than on cases. Moreover, in our empirical analysis we do not use scandals that affected parties not in power (i.e. that had already been ousted) or that affected incumbents that had been involved in a corruption scandal in the previous term (see next section for an explanation). The numbers in parentheses in

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<sup>10</sup> The service covers just a few of the local papers for the pre-2000 period. However, only 7% of the cases in the database from Fundación Alternativas were covered solely by local newspapers (and not by regional and national ones as well), making this problem relatively unimportant. Further, as our results show, local news is far less relevant than national and regional news in the eyes of the voters (see next section).

<sup>11</sup> As a robustness check, we also searched for news containing just the word 'corrupción', but we did not find additional cases.

Table 1 indicate the number of scandals remaining once these two classes are removed. This reduces the number of scandals during these two terms to 453, 212 during the 1999-2003 term and 241 during the 2003-07 term of office.

Table 1: *N° of corruption cases vs. n° of corruption scandals*

		<i>Corruption is published (=Scandals)</i>					
		Jan-96 June-99	July-99 May-03	June-03 May-07	June-07 Nov-09	July-99 May-07	Jan-96 Nov-07
<i>Corruption occurs (=Cases)</i>	June-91 May-95	6 (3)	7 (5)	1 (1)	--	8 (6)	14 (9)
	June-95 Jun-99	14 (7)	10 (8)	8 (2)	--	18 (10)	32 (17)
	July-99 May-03	--	227 (212)	<b>31</b> (17)	<b>30</b> (26)	258 (229)	288 (255)
	June-03 May-07	--	--	307 (224)	<b>101</b> (49)	307 (224)	408 (273)
	June-07 Nov-09	--	--	--	72 (60)	--	72 (60)
	July-99 May-07	--	227 ( <b>212</b> )	338 ( <b>241</b> )	131 (75)	565 (453)	696 (528)
	June-91 Nov-09	20 (10)	244 (225)	347 (244)	203 (135)	591 (469)	814 (614)

Notes: (1) Both number of cases and scandals refer to the number of municipalities affected, (2) Corruption cases = recorded during the term in which the corrupt act originating the scandal occurred. (3) Scandals = recorded during the term the press published the case. (4) In brackets we show the number of observations after excluding: a) those municipalities where corruption happened in a period before that in which the scandal was published and the incumbent was not the same; b) those municipalities that have been involved in cases of corruption in the past (these are the criteria used in building our 'treated' group). (5) In bold are the scandals used in the empirical analysis, and in bold and italics the cases used to build the alternative control group based on municipalities that are corrupt but where corruption was published after the elections. Source: Fundación Alternativas (2007) and authors' own data search in MyNews.

The database also contains the number of news related to each of these cases and which were published during the term-of-office of the incumbent implicated in the scandal. The number of news totals 5144, with an average of ten news items per scandal (see Table 2).

Table 2: Descriptive statistics. 1999-2003 and 2003-07 terms

<i>Variable</i>	<i>Mean</i>	<i>S.D.</i>	<i>Max</i>	<i>Min</i>
<i>Corruption scandal</i> <sup>(4)</sup>	0.050	0.218	1	0
<i>Corruption news</i> <sup>(4)</sup>	10.434	22.584	208	1
<i>More than 10 news</i> <sup>(4)</sup>	0.253	0.402	1	0
<i>2<sup>nd</sup> 1/2 of term</i> <sup>(4)</sup>	0.458	0.499	1	0
<i>News in 2<sup>nd</sup> 1/2 of term</i> <sup>(4)</sup>	6.99	13.22	134	0
<i>Local scandal</i> <sup>(4)</sup>	0.229	0.421	1	0
<i>National scandal</i> <sup>(4)</sup>	0.468	0.499	1	0
<i>Local news</i> <sup>(4)</sup>	1.294	5.523	87	0
<i>National news</i> <sup>(4)</sup>	3.983	12.509	158	0
<i>More than 2 Local news</i> <sup>(4)</sup>	0.103	0.305	1	0
<i>More than 5 National news</i> <sup>(4)</sup>	0.160	0.367	1	0
$\Delta$ <i>Vote share</i> <sup>(1)</sup>	-0.061	0.155	-0.569	-0.569
<i>Re-election</i> <sup>(1)</sup>	0.675	0.468	1	0
<i>Incumbent in t-1</i> <sup>(1)</sup>	0.734	0.564	1	0
<i>Coalition</i> <sup>(1)</sup>	0.356	0.478	1	0
<i>Population growth</i> <sup>(2)</sup>	0.041	0.169	2.650	-0.237
<i>Unemployment growth</i> <sup>(3)</sup>	0.004	0.014	0.371	-0.078

Definitions: *Corruption*:  $dC = 1$  if a corruption scandal occurred during the term, 0 otherwise. *2<sup>nd</sup> 1/2 of term* = the scandal broke (the first news was published) during the 2<sup>nd</sup> half of the term. *Corruption News* = number of news related to the scandals occurring during the term. *More than X news* = 1 If *Corruption news* > X. *News in 2<sup>nd</sup> 1/2 of term* = number of news published in the 2<sup>nd</sup> part of the term. *Local News* = number of news published by local newspapers. *National News* = number of news published by national newspapers. *Local Scandal* = 1 if a corruption scandal is published by a local newspaper. *National Scandal* = 1 if a corruption scandal is published by a national newspaper. *More than X Local (National) news* = 1 If *Local (National) news* > X.  $\Delta$ *Vote share* =  $\Delta$  vote for the incumbent party/parties/total vote in two consecutive elections. *Re-election* = 1 if the party of the mayor is the same in t than in t-1. *Incumbent in t-1* = 1 if the party of the mayor was the same in t-1 than in t-2. *Coalition* = 1 if the mayor's party does not have a majority of seats in the city council. *Population growth* =  $(pop. \text{ in } t - pop. \text{ in } t-4) / pop. \text{ in } t-4$ . *Unemployment growth* =  $(unemp. \text{ in } t - unemp. \text{ in } t-4) / pop. \text{ in } t-4$ . Data sources: (1) Ministry of Interior and Ministry of Public Administrations; (2) National Institute of Statistics ([www.ine.es](http://www.ine.es)), (3) Social Security Register, (4) Fundación Alternativas and authors' own elaboration using MyNews.

For nearly 30% of the cases there is only one news item, for 33% the number of news is greater than one but less than five, 12% of them were mentioned in between five and ten news items, while 25% of the cases were written about in more than ten news stories. The database also informs us about the timing of the publications and the type of outlet publishing these news, which is in national, regional or local newspapers. We know, for example, that 45% of the scandals broke in the second half of the mandate, and that 67% of the news was also published during this period. National newspapers published 46% of the scandals, regional newspapers 63%, and local newspapers just 23%. The



sum of these percentages is greater than 100 because most cases were covered by more than one type of newspaper: 20% of the scandals were covered by both national and regional newspapers, 10% by regional and local, 6.5% by national and local, and just 3% by the three types of publication at the same time. The average number of news per scandal in national, regional and local newspapers was 9.4, 5.8 and 2.4, respectively.

A second survey commissioned by the same think tank identified a subset of 133 scandals arising during the 2003-07 with some involvement of the judiciary, out of the 241 that occurred during this term. A group of researchers, lawyers, and experts on land use regulations verified that all the scandals included were relevant and also to aid in the classification of the stage of judicial intervention. Scandals with judicial intervention are those in which the politician's name appears in a report to the court, in an attorney's investigation, or in a judicial decision. Moreover, the database (see Table 3) allows us to classify these scandals into: (i) cases already *Dismissed* and thus not ending in conviction (15% of the scandals), which include a few acquittals and many situations in which the attorney initiated an investigation but he and/or the judge concluded that there was insufficient evidence to go to trial; (ii) cases involving a *Report* to the court from an opposition party or any other organization but without any investigation initiated (10%), (iii) cases in which the attorney decided to initiate an *Investigation* but where the case has yet to go to trial (60%); (iv) cases in which there has been a formal *Accusation* by the attorney and which are awaiting trial (11%) and, finally, (v) cases that resulted in a *Conviction* (4%).<sup>12</sup> We define these three last categories as cases with *Corruption charges* (= *Investigation* + *Accusation* + *Conviction*). The remaining 108 scandals are in theory cases that broke because the attention of the press but without any formal involvement of the judiciary. The average number of news per scandal in those with judicial involvement is around 14. Cases that have reached an advanced stage, like convictions and filed cases, accumulate the highest number of news (20 and 18 news, respectively), but this is probably due to the fact that more time has elapsed since the initiation of the process. The number of news is also high in cases at the investigation and accusation stage (17 and 16 news per scandal), and is really low for reports to the court without further investigation (2 news). The number of news in scandals with

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<sup>12</sup> The low rate of conviction or even of cases going to trial is due to the fact that most of the cases occurred during the same term of office and to the extremely slow speed of the Spanish judiciary.

no judicial involvement (those 108 unclassified cases) is around 9. Although this number is lower than the one for classified cases, is still quite high, and higher than the one for mere reports. Unfortunately, given this evidence and the difficulties in data collection (see Fundación Alternativas, 2008) we cannot be fully sure that none of these 108 cases has been misclassified. This suggests that the results should be interpreted with care. Table 3 also provides information on the increase in incumbent's vote share between the 2003 and 2007 local elections and on the incumbent's re-election rate at the 2007 elections for the different groups of municipalities. The data shows that the vote loss was higher and the re-election rate lower for incumbent's affected by a corruption scandal.

Table 3: *Corruption scandals by type of judiciary intervention: 2003-07 term.*

<i>Variable</i>	<i>Number of scandals</i>	<i>News per scandal</i>	$\Delta$ <i>Vote share</i>	<i>Re-election rate</i>
<i>Corruption scandals</i>	241	10.43	-0.069	0.592
<i>Corruption charges</i>	100	14.22	-0.067	0.593
<i>Investigated</i>	80	17.31	-0.074	0.581
<i>Accused</i>	15	16.10	-0.078	0.552
<i>Convicted</i>	5	20.03	-0.070	0.612
<i>Dismissed or Reported</i>	33	18.99	-0.058	0.651
<i>Remaining scandals</i>	108	9.67	-0.055	0.643
<i>No corruption scandals</i>	4360	--	-0.060	0.665

Definitions: *Investigated* = scandals being investigated by the court; *Accused* = scandals where there is an official charge of corruption and are awaiting for trial; *Convicted* = scandals that ended in a conviction; *Corruption charges* = Investigated + Accused + Convicted; *Dismissed* = scandals that after an investigation by the court, did not go to trial or went to trial but ended with acquittal; *Reported* = scandals that have been reported to the court, but the court decided not to investigate them; *Remaining scandals* = scandals published by the press but where there have been no reporting to the court; *No corruption scandals* = municipalities without corruption scandals. Data sources: See Table 2.

### 3. Empirical Analysis

#### 3.1. Dependent Variable, Period and Sample

The purpose of this analysis is to estimate the effect of news of alleged corruption involving an incumbent mayor, during a given term-of-office, on that incumbent's vote share at the following local elections. We analyse the vote for the incumbent party or parties, but not the vote for specific

candidates, since our database does not provide this information. However, only a few of the candidates involved in corruption scandals chose not to run again or were forced by their parties to stand down. For example, in the 2007 elections just 19 corrupt candidates did not run again (see *Fundación Alternativas*, 2008).<sup>13</sup> The 2007 results (available upon request) do not change if we exclude these municipalities from the analysis. We have no information regarding the number of candidates who stood down at the 2003 elections, but the picture presumably differs little.

Since a substantial percentage of municipalities are governed by coalitions (34% and 32% in the 1999-2003 and 2003-07 terms, respectively), our dependent variable is constructed as the sum of votes for all the parties in the government team (including the mayor's party, which is the one receiving most votes in the vast majority of cases, and its partners) over the total number of votes (recorded by parties both in and out of government). The average incumbent's vote share was around 55%, both in 2003 and 2007 and both for majority parties and coalitions (see Table 2 for data sources). Here, we focus on the share of the incumbents vote at the two local elections (i.e. those of 2007 and 2003) that may well have been affected by the upsurge in the number of corruption scandals. As reported in the previous section, it seems that the media and the electorate concern about corruption reached a peak before the 2007 elections, while the effect was less apparent in 2003 and certainly non-existent at earlier elections (1999 and 1995). For this reason, we pay more attention to the 2007 elections, albeit we also present results for the 2003 polls. In all circumstances, we believe that the evolution over time of this phenomenon justifies the separate treatment of the two elections.

In our analysis we compare the municipalities that experienced a corruption scandal for the first time during the term analysed (either 1999-2003 or 2003-07) with those that did not experience a corruption scandal in the previous terms (i.e. 1995-99 and 1999-2003 in the case of the 2007 elections, and 1995-99 in the case of the 2003 polls). This means that our 'treated' group does not include the municipalities that experienced corruption both during this term and in the previous one, and nor does it include those municipalities with a corruption scandal that did not affect the current incumbent. The reason for

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<sup>13</sup> This report speculates as to the causes of the decision not to stand down, suggesting that a decision to stand down is an implicit acceptance of corruption by the party. Moreover, in some cases, the party lacks any disciplinary measures that might impede a candidate from standing for election in representation of a different party.

these exclusions is that corruption might have a different impact on the vote after having been experienced in the previous term, and this might also depend on whether the incumbent was ousted or not. Our ‘control’ group also excludes all municipalities that have experienced a case of corruption in the past so as to guarantee that we compare only those municipalities experiencing this problem for the first time with municipalities that have never faced such a problem. As a result, for the 2007 elections, the ‘treated’ group comprises 241 municipalities (see Table 1) while the control group comprises 4360 (from a total of 4601 municipalities).<sup>14</sup> In the 2003 analysis, we have 4867 municipalities (212 ‘treated’ and 4655 ‘controls’).

### 3.2. Empirical Strategy

Estimating the effects of corruption scandals on the incumbents’ vote share is not straightforward since the corruption might well be correlated with the degree of popularity of the incumbent. Failure to account for this could bias our estimates. We deal with this problem by adopting two methods: (i) OLS with control variables, and (ii) ‘difference-in-differences’ (DD).

#### 3.2.1. OLS with Control Variables

In this first approach, we use a cross-section of data to estimate by OLS a separate vote share equation for each of the two elections, according to the following linear specification (see, e.g., Healy and Malhotra, 2009, for a similar approach):

$$V_{ikj}^t = \alpha dC_i + \beta V_{ikj}^{t-1} + \delta_{kj} + \gamma Z_i + \varepsilon_i \quad (1)$$

where  $dC_i$  is a dummy equal to one if there has been a corruption scandal in the municipality during the term-of-office preceding the election (held either in 2007 or 2003). We also estimate the model with alternative measures of corruption (e.g. number of news, corruption charges), but for ease of presentation we refer only to the corruption scandal dummy in this section. ✓

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<sup>14</sup> Spain has more than 8,000 municipalities, but most are quite small. The control group is smaller than this because of data gathering problems. We believe that our control group is fairly representative of the population, since it includes the vast majority of municipalities with more than 5,000 inhabitants and a number of tests run on the remaining part of the sample show that the average values in the sample and the population (for the few variables which are available in both cases) are quite similar.

is the incumbent's vote share, while the sub-indexes indicate that votes were obtained in municipality  $i$ , belonging to region  $k$ , by party  $j$ , and the super-indexes inform that the votes were obtained by the incumbent at the electoral contests  $t$  and  $t-1$  (i.e., 2007 and 2003, for the 2007 elections, or 2003 and 1999, for the 2003 elections). The incumbent's vote share in the previous election controls for differences across municipalities derived from voters' historical attachment to a given political party (see Solé-Ollé and Viladecans-Marsal, 2012). The  $\delta_{kj}$  are region x party fixed effects,<sup>15</sup> accounting for regional popularity differentials between parties. Its inclusion is justified by the fact that local elections in Spain can be seen partly as functioning as by-elections for regional and national polls. This means that when the popularity of a party falls regionally or nationally, so does its vote share at local elections (see, e.g., Bosch and Solé-Ollé, 2007a and 2007b). The intensity of these tide effects often differs from region to region, so we allow these effects to differ across regions and parties.  $Z_i$  is a vector of controls, including a dummy indicating whether the incumbent at  $t$  was also incumbent at  $t-1$ , a dummy indicating whether the government is a coalition, and the growth during the term in unemployment and in population. These last two variables have been included to account for the possibility that voters punish poor economic performance and/or dislike the possible adverse social and/or environmental effects of excessive growth. Both variables are potentially correlated with corruption, since our corruption measures are related to bribe-taking in exchange of permitting additional growth (which could be both correlated with new jobs and environmental damage). In addition to these variables, we also discuss the results obtained when expanding the set of controls to include population size dummies, property tax increase, and increases in current spending and investment and  $\varepsilon_i$  is a random error term with the usual properties.

### *3.2.2. Difference-in-Differences (DD)*

There are, however, some differences in popularity that might be municipality-specific and that are, therefore, difficult to capture with the lagged incumbents' vote share or the region x party dummies. For example, in some places the

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<sup>15</sup> In Spain there are 17 regions (the so-called Autonomous Communities). Only 15 of them were covered by the survey of Fundación Alternativas. The average number of municipalities per region is 326 and goes from a minimum of 33 (Asturias) to a maximum of 735 (Andalucía). All regions have some municipalities with corruption scandals. The average per cent of municipalities with corruption scandals is 12%, the minimum being 1% (Cantabria) and the maximum 33% (Murcia).

incumbency advantage might be higher than in others (i.e. in some places there is a higher probability that an incumbent that obtained a given vote share in the past elections will be ousted from government). If these differences are constant in time, they can be controlled by the inclusion of a municipality fixed effect,  $\theta_i$ , in the equation:

$$V_{ikjt}^t = \alpha dC_{it} + \beta V_{ikjt}^{t-1} + \theta_i + \delta_{kjt} + \gamma Z_{it} + \varepsilon_{it} \quad (2)$$

Note that now we allow the region x party effects also to vary by election. To eliminate the municipality fixed effect, we need access to the data of at least one other election. Since we also have information for the 1999 and 1995 local elections, we are able to use two cross-sections for each election. For the 2007 local elections, we have the 2003-07 and 1999-2003 cross-sections. Note, moreover, that given the definition of the ‘control group’ (see previous section),  $dC_i=0$  for all the municipalities in 1999-2003.<sup>16</sup> First-differencing over two consecutive terms, the estimated equation is just:

$$\Delta V_{ikjt}^t = \alpha dC_{it} + \beta \Delta V_{ikjt}^{t-1} + \delta_{kjt} + \gamma \Delta Z_{it} + \Delta \varepsilon_{it} \quad (3)$$

In this context, the interpretation of the ‘difference-in-differences’ estimate is that  $\alpha$  is the effect on the incumbents’ vote share between two consecutive elections of experiencing a corruption scandal for the first time, compared with municipalities where this did not happen and where it had never happened in the past. Obviously, since we control here for region x party x election effects, this effect is measured with respect to the increase in the incumbents’ vote share in municipalities of the same region and controlled by the same party.

The DD estimates of equation (3) will be unbiased whenever there are no uncontrolled municipality x election popularity shocks. If, for example, more popular incumbents tend also to be more corrupt, then the effect of

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<sup>16</sup> We proceed in a similar way in the case of the 2003 local elections, using the 1999-2003 and the 1995-99 cross sections.

corruption on the vote could be biased downwards.<sup>17,18</sup> A way of addressing this problem is to use an alternative control group, namely the municipalities in which we know cases of corruption occurred in the same term, but which were not published until the following one (see, e.g. Ferraz and Finan, 2008). There are 62 and 101 such municipalities for the 1999-2003 and 2003-07 terms (see Table 1), respectively. This procedure would completely eliminate this type of bias, since we would be comparing the electoral results of corrupt municipalities where corruption went unnoticed before the elections (because the press failed to publish about it) with the electoral results of incumbents which are also allegedly corrupt (and thus supposedly similar) but where the press did publish about the cases of corruption before the election and, thus, a scandal occurred.

However, this procedure is not free of problems. The main reason is that, since our corruption data comprise cases brought to light by the press, it is conceivable that lower vote margins lead to more news being published (see, e.g., the evidence provided in Snyder and Strömberg, 2010). If this is the case, the estimated effect using the *not-reported as corrupt* control group will be biased upwards. Nevertheless, we also report these results, since their comparison with those obtained when using the first control group (*non-corrupt* municipalities) might also be informative. For instance, let us assume that the first type of bias (more corruption with more popularity) dominates the second (more news with more popularity) when using the *non-corrupt* municipalities as a control group. In this case, the estimates obtained when using the *non-corrupt* and the *not-reported as corrupt*, respectively, as control groups

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<sup>17</sup> Predictions arising from political agency models suggest that increasing political competition should help reduce rents and corruption (see, e.g. Persson and Tabellini, 2000, Besley *et al.*, 2010). Empirical evidence on the effect of electoral competition (usually measured with the electoral margin) has confirmed this hypothesis (see, e.g., Svaleryd and Vlachos, 2008). Recent evidence for Spain also confirms that the influence of developer lobbies on local land policies is higher the higher the electoral margin of the local incumbent (see Solé-Ollé and Viladecans-Marsal, 2012).

<sup>18</sup> In Spain there is also anecdotal evidence supporting this idea. For example, in the two scandals followed with more attention by the press (i.e. Marbella and Andratx), the incumbent accumulated several landslide electoral victories before corruption was detected. In Marbella, the GIL populist party won 80%, 76%, 70% and 64% of the representatives in the local elections of 1991, 1995, 1999 and 2003, just before all the mayors serving during this period were sent to jail after the MALAYA crackdown in 2006. In Andratx, the governing coalition won these elections by 75%, 80%, 70% and 64%, respectively, also just before a crackdown in 2007 sent the mayor to jail. In both cases, accusations were related to accepting bribes and other charges related to land use regulations (see Fundación Alternativas, 2007).

are the lower and upper bounds for the true effect of corruption on the vote. The usefulness of this approach depends on these bounds not being very far apart from each other. As we show in the results section, the DD estimates with the *not-reported as corrupt* control group are higher than those with the *non-corrupt* control group, confirming our expectations. Since the difference between the two estimates is not large, we are confident that our estimates are not severely biased.

## 4. Results

Tables 4 to 9 present the results of the estimation of the effects of corruption scandals on incumbents' electoral outcomes. Table 4 presents the basic OLS and DD results for the 2007 elections using either the scandal dummy or measures of corruption based on counts of news published. Table 5 show how the DD results change when we take into account the information regarding judicial charges as provided by the press. Table 6 studies how the impact of the number of news and of judicial charges depends on the timing of publication (distance to next election) and on the type of newspaper (national, regional or local), respectively. Tables 7 and 8 present a summary of the OLS and DD results for the alternative control group and for the 2003 elections. These two tables focus on the effects of the number of news and do not analyse the effect of charges. The reason is the lack of information about judicial intervention for scandals that appear prior the 2003 and also for the cases included in the alternative control group.<sup>19</sup> Finally, Table 9 presents a summary of the results regarding the effects of corruption on the probability of re-election of the mayor.

### 4.1. Corruption Scandals vs. Corruption News

Columns (1) and (2) of Table 4 show the OLS and DD results for the 2007 elections when using the *Corruption scandal* dummy ( $dC=1$ ). These are our baseline results and provide information about the impact on the vote of a scandal brought to light by the press, with independence of the intensity of

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<sup>19</sup> The municipalities included in the alternative control group have a similar number of news per scandal and the proportion of cases with more than 10 news is also similar. Unfortunately, we do not know the proportion of these municipalities with different types of corruption charges.



press coverage and of the kind of information provided.<sup>20</sup> In both columns, we control for the lagged incumbent's vote, a dummy indicating whether the party of the mayor was also the incumbent in the previous elections, a dummy indicating whether the government is a coalition, measures of unemployment and population growth over the term, and region x party fixed effects. The estimates suggest that an incumbent will lose between 2.8% (OLS) and 3.8% of the vote after a corruption scandal broke. The estimates in column (4) suggest that an incumbent implicated in an average scandal measured in terms of the number of news (i.e. ten during the 2003-07 term) will lose a 2.8% of the vote following publication of the first news item and an additional 2% (0.2% per news item x 10, which is the average number of news per scandal) as a result of total press coverage, giving a total vote loss of 4.8%. Column (6) seeks a possible non-linear effect of the number of news, using a dummy that recognise a threshold of more than ten news. We find that more than ten news results in a significant additional vote loss (6.1%). This means that for the 25% of scandals in the sample, which are the ones with more than ten news, the incumbents' vote loss is much higher than in the rest of cases, rising to 8.8% (i.e. 2.7%+6.1%).<sup>21</sup>

The results of Table 4 also show that DD results are higher than the OLS ones (3.8% vs. 2.8% when all the controls are included), which is consistent with omitted popularity being positively correlated with corruption. Moreover, in additional results (not shown here to save space) we find that while the OLS estimates grow as we add the control variables, the DD do not change greatly. Of all the control variables, the region x party fixed effects are the ones with more explanatory power, and seem to control quite well for omitted popularity, especially in the OLS case (i.e. when municipality fixed effects are not taken

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<sup>20</sup> These results are interesting because they are directly comparable with those of other studies of the effects of corruption on the vote (see, e.g. 'Fundación Alternativas, 2007) that are not able to disentangle the effects of founded vs. unfounded corruption, as the information regarding judicial involvement will allow us to do.

<sup>21</sup> We estimated the equation with additional thresholds. We tried with dummies indicating whether the scandals generated more than 5, 10 and 20 news reports. We find that publication of more than five reports (but fewer than ten) does not make any difference, but that publication of more than ten news reports results in a significant additional vote loss. The publication of more than twenty reports does not make any difference, once a scandal has been written about in more than ten news stories. It seems, therefore, that the ten news report threshold best defines a scandal receiving substantial coverage by the press. Results are available upon request. We also checked whether the results are sensitive to the exclusion of the cases with more news. The results are virtually the same when exclude the scandals with more than 100 or 50 news.

into account). With the exception of *Population growth* in the DD equations, several control variables included are statistically significant and their effects are in line with our expectations. Of particular interest is the fact that voters seem to punish *Unemployment growth*.

Table 4: *Corruption scandals vs. Corruption news. Dependent variable: Incumbents' vote share. OLS and DD estimates. 2007 elections.*

	<i>Corruption scandal</i>		<i>Corruption news</i>		<i>More than 10 news</i>	
	OLS (1)	DD (2)	OLS (3)	DD (4)	OLS (5)	DD (6)
<i>Corruption scandal</i>	-0.028 (-3.55) <sup>***</sup>	-0.038 (-2.32) <sup>**</sup>	-0.017 (-2.09) <sup>**</sup>	-0.028 (-2.12) <sup>**</sup>	-0.018 (-2.31) <sup>***</sup>	-0.027 (-2.48) <sup>***</sup>
<i>Corruption news</i>	---	---	-0.001 (-1.67) <sup>*</sup>	-0.002 (-2.47) <sup>**</sup>	---	---
<i>More than 10 news</i>	---	---	---	---	-0.040 (-2.56) <sup>***</sup>	-0.061 (-2.27) <sup>***</sup>
<i>Incumbent vote share in t-1</i>	0.592 (17.57) <sup>***</sup>	0.185 (2.11) <sup>***</sup>	0.587 (16.79) <sup>***</sup>	0.182 (2.10) <sup>***</sup>	0.583 (16.86) <sup>***</sup>	0.182 (2.10) <sup>***</sup>
<i>Incumbent in t-1</i>	0.028 (2.61) <sup>**</sup>	0.085 (4.70) <sup>**</sup>	0.026 (2.40) <sup>**</sup>	0.080 (4.54) <sup>**</sup>	0.025 (2.34) <sup>**</sup>	0.071 (4.38) <sup>**</sup>
<i>Coalition</i>	0.038 (5.39) <sup>***</sup>	0.036 (10.18) <sup>***</sup>	0.037 (5.65) <sup>***</sup>	0.035 (12.33) <sup>***</sup>	0.036 (5.01) <sup>***</sup>	0.034 (8.87) <sup>***</sup>
<i>Population growth</i>	0.004 (2.34) <sup>**</sup>	0.001 (1.37)	0.004 (2.28) <sup>**</sup>	0.001 (1.44)	0.004 (2.39) <sup>**</sup>	0.001 (1.01)
<i>Unemployment growth</i>	-0.010 (-3.44) <sup>***</sup>	-0.023 (-5.68) <sup>***</sup>	-0.011 (-3.25) <sup>***</sup>	-0.020 (-5.12) <sup>***</sup>	-0.010 (-2.54) <sup>***</sup>	-0.018 (-4.09) <sup>***</sup>
R2	0.202	0.148	0.234	0.154	0.252	0.162
<i>F-stat. (All variables)</i>	44.76 [0.000]	12.70 [0.000]	51.23 [0.000]	14.45 [0.000]	53.87 [0.000]	15.03 [0.000]

Notes: (1) Dependent variable is the incumbent's party/parties vote share, in the OLS case, and the increase in the vote share between two consecutive elections in the DD estimation; (2) *Corruption scandal*:  $dC=1$  if a corruption scandal involving the incumbent was reported during the 2003-07 term; (3) Control group are non-corrupt municipalities; Number of municipalities in the control group is 4360; Number of municipalities with  $dC=1$  is 241; Number of observations is 4601; (4) Region x party effects included in all the equations; (5) t-statistics in parenthesis; p-values in brackets; \*\*\*, \*\* and \* = statistically significant at the 99, 95 and 90% levels; (6) Robust standard errors; (7) *F-stat. (All variables)* = test of joint statistical significance of all variables.

## 4.2. Corruption News vs. Corruption Charges

Table 5 presents the DD results for the 2007 elections when adding to the equation the variables that account for the information provided by the press

regarding the intervention of the judiciary in each scandal. Columns (1) to (3) show how the results change when we add a dummy identifying whether the press has informed that there are *Corruption charges* related to a given scandal, understood as a case whether the judiciary has decided to intervene (either by investigating or by formally presenting an accusation) and the procedure is still alive or has ended with a conviction. In these equations we also control for a dummy identifying whether the case has been dismissed or whether there has been reporting to the court but the judiciary has decided not to open a case (*Dismissed or Reported*). These two dummies identify the 133 cases in which there has been some type of involvement by the judiciary. Since the sample used includes all the 241 scandals of corruption that broke during the 2003-07 term-of-office, the base category are the 108 scandals of corruption without judiciary intervention. The effect of this type of scandal on the vote is picked up by the coefficient of the *dC* dummy.

The results suggest that electoral punishment varies depending on whether the incumbent is charged or not and also (as above) on press coverage. Scandals in which formal charges have been made and for which press coverage is wide (i.e. with more than ten news) cause a substantial vote loss ( $12.4\% = 1.4\% + 5.7\% + 5.3\%$ , see column (3)). Scandals already *Dismissed* or *Reported* (but with no further investigation) and with wide press coverage cause a vote loss of just 2% ( $= 1.4\% - 5.1\% + 5.7\%$ ), and even become a vote gain when there is little press coverage ( $-3.7\% = 1.4\% - 5.1\%$ ). Column (4) uses finer categories of judicial involvement, breaking corruption charges into cases where the politician has been *Investigated*, *Accused* or *Convicted*, and the *Dismissed* or *Reported* dummy into cases that have been either *Dismissed* or in which the case was *Reported* to the court but not investigated. The results suggest that cases in which the politician has been formally *Accused* by the attorney (that is, cases going to trial) lead to a substantial vote loss (around 7% more than cases for which no charges are brought, which are the base category, picked up here by the *dC* dummy). *Conviction* also results in an additional 6% vote loss (than in the base category), while scandals in which the politician is being *Investigated* (but which were not taken any further) result in an additional 2% vote loss.

Table 5: *Corruption news vs. Corruption charges. Dependent variable: incumbents' vote share. DD estimates. 2007 elections.*

	(1)	(2)	(3)	(4)	(5)
<i>Corruption scandal</i>	-0.017 (-1.33)	-0.014 (-2.12)**	-0.014 (-2.21)**	-0.014 (-1.93)*	-0.014 (-1.73)*
<i>Corruption news</i>	--	-0.001 (-2.31)**	--	--	--
<i>More than 10 news</i>	--	--	-0.057 (-2.33)**	-0.059 (-2.25)**	-0.029 (-1.65)*
<i>Corruption charges</i>	-0.050 (-1.89)*	-0.052 (-2.09)**	-0.053 (-2.21)**	--	-0.017 (-1.93)*
<i>Investigated</i>	--	--	--	-0.022 (-3.33)**	--
<i>Accused</i>	--	--	--	-0.070 (-2.33)**	--
<i>Convicted</i>	--	--	--	-0.057 (-2.91)**	--
<i>Dismissed or Reported</i>	0.052 (1.88)*	0.050 (1.85)*	0.051 (1.76)*	--	0.062 (1.76)*
<i>Dismissed</i>	--	--	--	0.060 (2.47)**	--
<i>Reported</i>	--	--	--	0.048 (1.21)	--
<i>Corrup. charges x More than 10 news</i>	--	--	--	--	-0.085 (-2.23)**
<i>Dismissed or Rep.. x More than 10 news</i>	--	--	--	--	-0.010 (-0.80)
R2	0.170	0.173	0.175	0.173	0.167
F-stat. (All variables)	14.89 [0.000]	15.10 [0.000]	15.22 [0.000]	15.57 [0.000]	14.95 [0.000]

Notes: (1) See Table 4; (2) The coefficient of the  $dC=1$  dummy is the effect of the base category, which is the group of 108 municipalities without corruption charges; (3) See Table 3 for definitions.

Interestingly, cases already *Dismissed* (and which thus did not end in trial or if ended with a trial there was acquittal) actually resulted in additional votes (around 6%) being cast in favour of the incumbent, relative to scandals with no judicial intervention and the same number of news. The overall impact of such cases is very low (1.3% = 1.4%+5.9%-6%, see column (4)). A *Dismissed* case appears thus to be interpreted by a portion of the electorate as direct evidence that the charge was motivated by an intention to harm the incumbent. The effect found for cases *Reported* to the court but not investigated is positive and of a similar magnitude (around 5%), although here the coefficient is not

statistically significant. In any case, when comparing with the strong negative effects of all the categories included in the *Corruption charges* definition, these results suggest that voters do not consider cases of corruption raised by the opposition as being credible. The information provided by the press regarding the status of judicial intervention seems, therefore, to help voters to disentangle between cases of founded and unfounded corruption.

The effect of a scandal without judicial intervention when there is no wide coverage is quite low (1.4%, see columns (2) to (5)) and lower than when the severity of the scandal was not accounted for (recall the results in Table 4). The effect of a corruption scandal without judicial intervention but wide press coverage is also substantial ( $7.1\% = 1.4\% + 5.7\%$ , see column (3)). However, this result might be due to a larger effect of news coverage when the case is really serious. To account for this possibility, in column (5) we add interactions between the two main categories of judicial intervention (i.e. *Corruption charges* and *Dismissed or Reported*) and the dummy indicating whether there have been more than ten news. The results confirm our intuition: the effect of a scandal with charges rises to a vote loss of 14.5% ( $14.5\% = 1.4\% + 1.7\% + 2.9\% + 8.5\%$ ) and the effect of cases that were dismissed or reported with wide press coverage result in additional votes ( $-1.9\% = 1.4\% + 2.9\% - 6\%$ , see column (5)). This last result suggests that scandals and press coverage have an effect on the vote even after controlling for judicial intervention. We have to admit, however, that this result can also be due to a possible contamination of the base category, which could include some cases with judicial involvement not identified by the survey providing the data.

### **4.3. Additional Results**

#### *4.3.1. Timing of Publication and Newspaper Type*

Table 6 presents the DD results for the 2007 elections taking into account the timing of the publication of news reports and the newspaper type. The first column includes a dummy identifying whether a case generated more than ten news reports and its interaction with a dummy representing the second half of the government's term of office (*2<sup>nd</sup> 1/2 of term*).<sup>22</sup> The second column adds the

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<sup>22</sup> We repeated the analysis to examine potential differences between the 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> years of the term of office. Our results suggest that there are some differences between the 3<sup>rd</sup> and 4<sup>th</sup> years, but these were small and not statistically significant. Complete results available from authors upon request.

dummies that identify whether *Corruption charges* have been brought or whether the case was *Dismissed* or *Reported*, and the interaction between this variable and the 2<sup>nd</sup> 1/2 of term dummy.<sup>23</sup> Controlling for the interaction between cases for which charges were brought and the distance in time to the next election is important because cases involving judicial intervention became more prevalent as the election approached, simply because of the time it takes for the judiciary to initiate proceedings.

The results suggest that the impact of more than ten news reports is higher if published in the second half of the term. The coefficient of the variable indicating that more than ten news reports have been published is six times higher in the second than in the first half of the term (see column (1)). Voters would thus seem to be ‘myopic’, attaching greater importance to more recent than to more distant reports of corruption. However, the effect of the news reports still depends on the severity of the case (see column (2)). A case of corruption for which charges have been brought with more than ten news published in the second half of the term generates an additional vote loss (2.5%). News items from a scandal without judicial intervention published in the second half of the term is associated with additional votes (3.3%).

Columns (3) and (4) present the results when separating the cases of corruption and their news reports by newspaper type (national, regional (base category) and local). Column (3) combines the more than ten news reports dummy with thresholds for national and local news. Scandals receiving broad coverage from national and/or regional newspapers but not from the local media are found to result in a substantial number of votes being taken away from the incumbent involved in the corruption case (10.5%=3.9% +6.6%). If the scandal is also covered by the local media then the impact is not nearly so great (5.1%=10.5%-5.4%), albeit the impact is greater than if the scandal is not widely covered by any of the press (3.9%). These results might reflect the fact that newspaper competition is usually low at the local level. Typically, just one newspaper is published at that level, often being funded in part by the local council. We speculate, therefore, that government control over local media is highly likely when it comes to the reporting of corruption cases.

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<sup>23</sup> We limit the analysis to just these two categories given that the small number of observations in some of the sub-categories of judicial intervention (see Tables 3 and 5) in each sub-period would make any estimations imprecise. However, it should be borne in mind that the main difference between categories was the negative impact of *Corruption charges* on the share of the vote and the positive effect of *Dismissed* and *Reported* cases.

Table 6: *Timing of publication and type of newspaper. Dependent variable: Incumbents' vote share. DD estimates. 2007 elections.*

	(1)	(2)	(3)	(4)
<i>Corruption scandal</i>	-0.026 (-2.43) <sup>***</sup>	-0.016 (-1.68) <sup>*</sup>	-0.039 (-2.50) <sup>***</sup>	-0.014 (-1.55)
<i>Local scandal</i>	---	---	0.001 (0.60)	0.007 (0.45)
<i>National scandal</i>	---	---	-0.001 (-0.09)	-0.001 (0.24)
<i>More than 10 news</i>	-0.011 (-1.80) <sup>*</sup>	-0.008 (-1.87) <sup>*</sup>	-0.066 (-2.88) <sup>***</sup>	-0.016 (-1.86) <sup>*</sup>
<i>More than 10 news × 2 ½ of term</i>	-0.062 (-2.21) <sup>**</sup>	-0.042 (-2.34) <sup>**</sup>	---	---
<i>More than 2 Local news</i>	---	---	0.054 (3.18) <sup>***</sup>	---
<i>More than 5 National news</i>	---	---	0.001 (0.08)	---
<i>Corruption charges</i>	---	-0.027 (-2.15) <sup>**</sup>	---	-0.045 (-1.93) <sup>*</sup>
<i>Charges × 2 ½ of term</i>	---	-0.025 (-1.97) <sup>**</sup>	---	---
<i>Charges × Local scandal</i>	---	---	---	0.010 (0.61)
<i>Charges × National scandal</i>	---	---	---	-0.003 (-0.51)
<i>Dismissed or Reported</i>	---	0.010 (2.20) <sup>**</sup>	---	0.045 (1.71) <sup>*</sup>
<i>Dismissed or Reported × 2 ½ of term</i>	---	0.033 (2.11) <sup>**</sup>	---	---
<i>Dismissed or Rep. × Local scandal</i>	---	---	---	0.012 (1.60)
<i>Dismissed or Rep. × National scandal</i>	---	---	---	0.033 (1.55)
R2	0.158	0.168	0.143	0.151
F-stat. (All variables)	13.11	13.44	13.78	13.99
	[0.000]	[0.000]	[0.000]	[0.000]

Notes: (1) See Tables 4 and 5; (2) All the estimations include the same controls as in Table 4; however, we include two measures of unemployment and population growth, measuring growth in the first and in the second half of the term.

Column (4) looks at the effects when controlling for whether *Corruption charges* have been brought or whether the case was *Dismissed* or *Reported* and for the interaction of these variables and the local and national character of the scandal. It seems necessary to control for these interactions as national newspapers are more likely to publish more reports about the more serious

cases of corruption. Our results suggest that newspaper type does not have any statistically significant effect in this instance.

#### 4.3.2. Alternative Control Group

Both the OLS and the DD results are higher when we use the municipalities *not-reported as corrupt* as our control group as opposed to the *non-corrupt* municipalities (Table 7). The estimated vote loss following a case of corruption rises from 2.1% to 4.8% in the case of OLS, and from 3.7% to 5.4% in the case of DD, although the precision of the estimates is lower when using the alternative control group. For widely covered cases, the estimate is also higher when using the municipalities *not-reported as corrupt* as a control group (i.e. the DD results rise from 8.8% to 11.8% = 5.4%+6.4%, see column (6) of Table 7). These results are consistent with the expected direction of the bias. The control group of municipalities *not-reported as corrupt* presents upwardly biased estimates, while the *non-corrupt* control group presents downwardly biased estimates. Moreover, as the difference between these two estimates is not great, the estimated effect of corruption on the incumbents' vote share lies within a fairly narrow range.

Table 7: *Corruption Scandals vs. Corruption News. Dependent variable: Incumbents' vote share. Alternative control group. OLS and DD estimates. 2007 elections.*

	OLS			DD		
	(1)	(2)	(3)	(4)	(5)	(6)
<i>Corruption scandal</i>	-0.048 (-1.58)	-0.040 (-1.66)*	-0.040 (-1.06)	-0.054 (-1.75)*	-0.055 (-1.79)*	-0.054 (-2.19)**
<i>Corruption news</i>	---	-0.002 (-1.45)	---	---	-0.004 (-1.32)	---
<i>More than 10 news</i>	---	---	-0.045 (-2.37)**	---	---	-0.064 (-1.96)**
R2	0.119	0.125	0.134	0.104	0.114	0.125
F-stat.	7.10	4.91	6.54	4.56	5.54	5.83
(All variables)	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]

Notes: (1) See Tables 4 and 5; (2) All the estimations include the same controls as in Table 4, with the exception of the region x party effects, which were not statistically significant; (3) The control group comprised municipalities with cases of corruption during the 2003-07 term that were reported by the press after the 2007 elections. The number of municipalities in the control group is 101; number of municipalities with  $dC=1$  is 241; number of observations is 342.



4.3.3. *The 2003 Elections*

The main results for the 2003 elections are presented in Table 8. Both the OLS and the DD results show estimates that are much lower and less precise. In some instances, the coefficients are not even statistically significant. These results would seem to reflect the fact that the first cases of corruption appeared just before the 2003 elections, when press coverage and citizen awareness of the problem were both much lower than they would be in the following term.

Table 8: *Corruption Scandals vs. Corruption News. Dependent variable: Incumbents' vote share. OLS and DD estimates. 2003 elections.*

	(1)	OLS (2)	(3)	(4)	DD (5)	(6)
<i>Corruption scandal</i>	-0.018 (-2.33)**	-0.010 (-1.66)*	-0.012 (-1.78)*	-0.024 (-1.99)**	-0.014 (-1.29)	-0.018 (-1.73)*
<i>Corruption news</i>	---	-0.001 (-2.09)**	---	---	-0.001 (-2.12)**	---
<i>More than 10 news</i>	---	---	-0.034 (-1.46)	---	---	-0.056 (-1.27)
R2	0.221	0.234	0.218	0.104	0.101	0.098
<i>F-stat.</i>	10.44	9.55	8.33	4.56	2.45	2.90
<i>(All variables)</i>	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]

Notes: (1) See Tables 4 and 5; (2) All the estimations include the same controls as in Table 4. (3) The control group are the non-corrupt municipalities; (3) The number of municipalities in the control group is 4655; number of municipalities with  $dC=1$  is 212; number of observations is 4867.

4.3.4. *Probability of Re-election*

In the previous section we showed that alleged corruption had a considerable impact on the vote cast for government parties, especially when such cases were widely covered by the press, and the press provided information that enabled readers to distinguish between well-founded and unfounded cases of corruption. Note, however, that in order to assess the magnitude of the results accurately, we need to know whether this impact on the vote share is likely to be translated into the probability of the incumbent holding onto office. Here, given the fact that many governments are coalitions, the main indicator we focus on is the retention of the mayor's office by the party holding it in the

previous term.<sup>24</sup> We know, for example, that after the 2007 elections the same party retained office in 67.5% of municipalities (Table 2). This proportion fell to 59.2% for incumbents involved in a corruption scandal, and rose to 66.5% for those in municipalities without a scandal (Table 3). The difference between the two situations is, therefore, 7.3% and is statistically significant at the 1% level. This proportion fell to just 53.3% for incumbents involved in scandals that received wide press coverage (13.1% down in municipalities without corruption scandals, a difference that is also statistically significant at the 1% level). The probability of re-election is 60.7% for municipalities with a scandal that did not receive wide press coverage, and 59.3% in municipalities where incumbents face corruption charges.

To obtain a firmer basis for comparing the results obtained in the previous section, we repeated the estimations using a dummy equal to one if the mayor's party was re-elected and zero otherwise. The method of estimation is a logit with fixed effects, in order to take into account municipality-specific effects on the popularity of the incumbent as in the previous DD results. In Table 9 we present a summary of our key findings (full results are available upon request).

The results are in line with those using the vote share but here the interpretation is more informative. For example, column (1) shows that the probability of losing the election increases by around 5% following a corruption scandal and by 16% ( $16.2\% = 4.8\% + 11.4\%$ ) if the scandal received wide coverage in the press (i.e., more than ten news reports). Simulated probabilities suggest that the chances of re-election are 53.1%, 59.1%, and 69.3%, in instances of no alleged corruption, cases of corruption that did not receive wide press coverage, and cases widely covered by the press, respectively. An inspection of columns (2) and (3) shows that the most marked impact on the probability of re-election occurs when there are both corruption charges and wide press coverage. For example, the fall in the probability of re-election in column (2) is around 14% ( $13.6\% = 1.6\% + 5.7\% + 6.3\%$ ). Finally,

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<sup>24</sup> When repeating this analysis using the share of the vote won by the mayor's party (as opposed to that of all the parties in the coalition government), we find qualitatively very similar results. For example, the breaking by the press of an alleged case of corruption results in a loss of 4.1% of the vote cast in favour of the mayor's party (compared to 3.8% for the entire coalition, column (2) of Table 3) while wide press coverage of a scandal causes a vote loss of around 10% (i.e. about one percentage point more). Cases with corruption charges also have a more marked impact (around 15% compared to 14% for the whole coalition). These results are maintained across specifications. Complete results available upon request.

columns (4) and (5) illustrate the effect of the timing of the election. In column (4) we see that the probability of re-election decreases by nearly 20% (20.2%=4.6% +2.4% +13.2%) when news of the scandal is broken during the second half of the term and the case receives subsequent wide press coverage.<sup>25</sup> The effect also grows as the election approaches in the cases of *Corruption charges* and *Dismissed or Reported* (see column (5)). The effect of wide coverage is still statistically significant in this case and the differences between the first and second halves of the term are also striking.

Table 9: *Corruption scandals, news and charges. Dependent variable: Incumbents' re-election probability. Logit estimates. 2007 elections.*

	<i>Marginal effects</i>				
	(1)	(2)	(3)	(4)	(5)
<i>Corruption scandal</i>	-0.048 (-1.77)*	-0.016 (-1.58)	-0.015 (-1.43)	-0.046 (-1.84)*	-0.016 (-1.24)
<i>More than 10 news</i>	-0.114 (-2.04)**	-0.057 (-2.23)**	-0.035 (-1.56)	-0.024 (-1.13)	-0.035 (-1.56)
<i>More than 10 news</i> × 2 <sup>nd</sup> 1/2 <i>of term</i>	---	---	---	-0.132 (-2.46)**	-0.081 (-2.34)**
<i>Corruption charges</i>	---	-0.063 (-2.14)**	-0.032 (-1.65)*	---	-0.029 (-1.55)
<i>Charges</i> × <i>More than 10 news</i>	---	---	-0.092 (-2.36)**	---	---
<i>Charges</i> × 2 <sup>nd</sup> 1/2 <i>of term</i>	---	---	---	---	-0.033 (-2.12)**
<i>Dismissed or Reported</i>	---	0.022 (1.75)**	0.037 (2.01)**	---	0.013 (1.66)*
<i>Dis. or Rep.</i> × <i>More than 10 news</i>	---	---	-0.010 (-0.56)	---	---
<i>Dis. or Rep</i> × 2 <sup>nd</sup> 1/2 <i>of term</i>	---	---	---	---	0.040 (1.78)*
<i>Likelihood Ratio</i> $\chi^2$	82.34 [0.000]	83.71 [0.000]	85.35 [0.000]	84.44 [0.000]	85.35 [0.000]

Notes: (1) Fixed effects logit; (2) All the estimations include the same controls as in Table 4.

## 5. Conclusion

This chapter has studied the effects of the recent upsurge in corruption in Spain on the vote polled by incumbents in local government allegedly involved

<sup>25</sup> The effects conditional on the type of newspaper are not reported but are available upon request. The effects are similar in sign (i.e., local scandals have a lower impact on the re-election probability) but are not statistically significant.

in such scandals. Based on the press coverage of corruption between 1996 and 2009, we have constructed a novel database reporting incidences of corruption and news related to charges of bribe-taking in exchange for amendments to land use plans. With these data, we have then estimated an equation for an incumbent's vote share at the 2003 and 2007 municipal elections. Using OLS and 'difference-in-differences' (DD) methods, we show that voters punished corrupt local politicians, albeit that while the severity of this punishment was fairly great at the 2007 elections it was more modest at the 2003 polls. We are also able to demonstrate that when the press gives broad coverage to a case of corruption, politicians are punished more severely. DD results suggest that at the 2007 elections the mean vote loss following a corruption scandal was around 4% for cases that generated fewer than ten news reports, rising to 9% for cases with more than ten news items.

Our findings also show that the quality of information provided by the press is relevant. Information about the involvement of the judiciary in the corruption scandal seems to help voters to disentangle well-founded from unfounded accusations of corruption. We show that not all types of judicial involvement have a negative impact on the incumbent's vote. On the one hand, cases involving charges of corruption in which the judiciary has decided to initiate an investigation or has prosecuted the incumbent (without the case having been subsequently dismissed or the politician acquitted) have a substantial effect on the vote share (up to 14%). On the other hand, cases that have been dismissed (i.e. those that did not end in a conviction) or that were brought before the court by the political opposition or civil society and which were not subsequently investigated by the judiciary actually have a very small impact on the incumbent's vote. This suggests that, in some instances, corruption scandals are perceived by the electorate as attempts by opposition parties to inflict harm on the incumbent and voters perceive such accusations as being unfounded. This would seem to indicate that the press and the judiciary have complementary roles in making voters aware of corruption. In the initial stage, the press breaks a story about alleged instances of corruption, thereby raising voter awareness and, at the same time, facilitating subsequent judicial action. In the second stage, the press plays a role as a disseminator of information regarding the results of judicial activity.

Our results indicate that the above effects were less marked on the 2003 election outcomes. However, the number of scandals before these elections and the general awareness of the Spanish electorate was perhaps much lower.

As such, our findings provide additional evidence regarding the relevance of the role of the press in providing voter information. Interestingly, we found that the impact of reports of corruption is greater if the case broke during the second half of an incumbent's term of office. Voters would thus seem to be 'myopic', attaching greater importance to more recent than to more distant reports of scandal. This outcome contrasts with the above findings that seem to indicate that the electorate extracts different lessons from different types of information. Finally, we also detect that the impact of local news coverage is not as great as that of regional and national coverage, which might suggest that the information published by Spanish local newspapers is somewhat less credible.

However, the results obtained for the 2007 elections are quantitatively meaningful. Given the low average vote margins with which Spanish elections are typically won, the effect of corruption scandals on the probability of a mayor retaining office is considerable. For example, scandals that have received wide press coverage or cases in which corruption charges have been brought against a politician reduce this probability by as much as 16%. Admittedly, such an impact is limited to a relatively small fraction of the sample, as just 25% of the corruption scandals received wide press coverage and only 40% of the cases involved the intervention of the judiciary. Hence, drawing any conclusions about the effect of a single case of corruption on the vote share based on the average impact across all cases of corruption is by no means reliable. This is particularly true given that some of these scandals will, in all probability, not involve well-founded accusations of corruption, and for this reason do not merit the press's attention, and so ultimately are given very little consideration by the electorate when casting their vote.

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## Chapter 3

### Political Corruption and Voter Turnout: Mobilization or Disaffection?

#### 1. Introduction

In democratic systems elections serve as an instrument with which citizens, by withholding their vote, can punish dishonest politicians and so bring down corrupt governments. However, studies examining the effect of scandals on electoral outcomes tend not to find any significant evidence for this, implying that in most cases malfeasant politicians will be re-elected.<sup>1</sup> These results have, on occasions, been interpreted to indicate a cultural acceptance of corruption, a hypothesis that considers some societies to be tolerant of such scandals.

Yet, electoral outcomes, it should be recalled, are not only a reflection of who receives the votes but also of who turns out to vote. Once an election is called, individuals face the choice of a participation decision. Some citizens may react to corruption by abstaining, rather than by specifically withholding their electoral support for the accused incumbent. In such instances, scandals affect electoral outcomes in a much broader manner than just their direct impact on

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<sup>1</sup> Peters and Welch (1980) and Welch and Hibbing (1997) show that US House of Representative members involved in scandals are more likely to be re-elected than not. For Brazilian mayors, Ferraz and Finan (2008) report a 10% fall in their probability of re-election, if municipalities are involved in random federal audits. In Spain, Rivero and Fernandez-Vazquez (2011) find that corruption has no effect on local election outcomes and in Chapter 2 we estimate a 4% vote loss after a corruption scandal is revealed. Chong *et al.* (2012) use an experimental setting in Mexico to show that information on corruption does not significantly affect an incumbent's vote share, a similar result to that found for Brazil (Winters and Weitz-Shapiro, 2013).

the incumbent's vote share. Therefore, to identify the impact of the effects of corruption, voter turnout must also be taken into consideration.

Corruption scandals can affect individuals' participation decision either by mobilizing the electorate to go to the polls to punish/support the malfeasant politician – henceforth, the 'mobilization effect', or by dissuading them from voting given their disaffection with the democratic process – henceforth, the 'disaffection effect'. Most studies to date focus on the aggregate impact of scandals on voter turnout without distinguishing between the mobilization and disaffection effects (Dominguez and McCann, 1998). Indeed, the extant literature presents *ad hoc* explanations of variations in turnout that do not reflect a prior strategy to identify these different effects. Hence, once the analysis is complete, the impact of either the mobilization or the disaffection effects cannot be differentiated. Moreover, the aggregate level data used in some studies (e.g., Stockemer, 2013; Stockemer *et al.*, 2013) represent an additional obstacle to determining the relative power of the two effects.

The aim of this chapter is to determine whether the participation of individuals at local elections is affected by a corruption scandal involving the incumbent. Drawing on data at the individual level, we are able to identify the mobilization and disaffection effects that corruption may generate taking into consideration both the individual's partisan leanings and the timing of the scandals.

The likelihood of a citizen being mobilized to vote following an episode of scandal may depend on his or her partisan leanings. Those with strong political leanings tend to turn out at the polls to support their politicians regardless. Similarly, high degrees of partisanship appear to be a factor influencing the way in which some individuals evaluate corruption scandals (Rundquist *et al.*, 1977; Anduiza *et al.*, 2012). By contrast, individuals who vote only occasionally do not exhibit strong partisan attachments and are likely to be more sensitive to scandals (Chong *et al.*, 2012). Thus, the degree of partisanship will play a crucial role in determining how citizens perceive accusations of corruption of the incumbent, and how they translate their perceptions into voter behaviour.

The timing of scandals may also affect participation decisions differently. Recent cases of corruption are perhaps quite likely to mobilize voters, while more distant scandals may already be forgotten (Fair, 1978; Kramer, 1971). Additionally, the timing of the episode may also play a fundamental role in shaping faith in the democratic system. Repeated cases of corruption can

generate wide scale disaffection with the electoral system among the politically alienated, who eventually stop participating in elections (Kostadinova, 2009).

Here we examine the impact of corruption scandals at the local level in Spain, which constitutes a good setting in which to test their effects on electoral outcomes. The Spanish case combines a recent wave of scandals in local government, concentrated above all in the 2003 to 2007 term of office, with a significant number of municipalities that experienced recurring cases of corruption in two consecutive terms (1999 to 2003 and 2003 to 2007). Our database of local corruption scandals allows us to verify if past, recent or repeated corruption cases have different impacts on voter turnout. In addition, we draw on a survey conducted in several Spanish municipalities (affected or otherwise by corruption scandals) that collects information on, among others, individual voting behaviour in the 2007 local elections, on degree of partisanship, ideology, and perception of corruption.<sup>2</sup> The use of these survey data collected at the individual level permits us to analyse the mobilization and disaffection effects of corruption on turnout depending on the voters' partisan leanings.

The adoption of a matching strategy allows us to identify a control group for those municipalities affected by corruption, by selecting 'twin' municipalities that did not experience scandals in the period analyses. The use of a matched sample improves the identification of the effect of corruption scandals on voter turnout, balancing the distribution of the covariates in the two subsamples. Also, matching increases the transparency of our research design, as described in more detail in section 3.2. We report a series of placebo tests that further confirm the validity of our identification strategy.

Overall our results show that an episode of local corruption means citizens are, on average, 1.5% less likely to vote. However, not all individuals modify their electoral participation in response to a case of corruption in the same way. This study shows that partisan leanings play a key role in shaping individuals' responses to corruption. We find that independent voters are 4.4% less likely to vote if a corruption scandal occurs in their municipalities. Core supporters, defined as those citizens who always vote for the same party, do not seem to react to corruption scandals, irrespective of whether they support the incumbent party or the opposition. Regarding the timing of corruption

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<sup>2</sup> We refer specifically to a matching sample and a survey designed by Solé-Ollé and Sorribas-Navarro (2014).

scandals, we find that when cases of corruption recur in a municipality over various periods, citizens are more likely to abstain. However, this effect disappears when the episodes are distant in time or in the period in the run-up to the election analysed.

Taking both individuals' partisan leanings and the timing of scandals into consideration, our results show that corruption only impacts the participation of independent voters. These individuals are also less likely to vote in municipalities that have experienced old or repeated cases of corruption, the latter being responsible for a 6.3% fall in their likelihood of voting. This implies, all in all, that the disaffection effect of scandals predominates over that of mobilization. Regarding corruption perceptions, we find that independent voters report higher perceptions after revelations of a scandal. By contrast, core supporters of an incumbent involved in a case of corruption seem to turn a blind eye to the scandal, while the corruption perception of core supporters of the opposition parties increases. We also find that in the short term local scandals affect corruption perceptions, but that they do not immediately affect individuals' participation decisions.

Our study makes three significant contributions to the extant literature. First, our research strategy draws a necessary distinction between the 'mobilization' and 'disaffection' effects of corruption on voter turnout. Second, this is the first study, to the best of our knowledge, which empirically analyses how these two effects are influenced by partisan leanings. Thus, we identify the individuals that are potentially mobilized to vote, and those who withdraw from elections as a consequence of corruption scandals. Third, by testing the impact of episodes of corruption occurring at different times on voter turnout we are able to untangle conclusions drawn in earlier studies that did not differentiate voter responses on the basis of the timing of scandals.

Importantly, our study provides empirical evidence regarding the effects of actual corruption cases. Most empirical studies of the determinants and consequences of corruption rely on perceptions, which while being easier to obtain raise concerns as to both their bias and their accuracy. Moreover, we do not consider corruption at the aggregate level, but rather only at the local municipal level. Measuring corruption at this level provides us with a more extensive sample of cases. It also has the additional advantage that cases of corruption at this level are more easily linked by citizens with the corresponding local politician. That may increase the accountability function of the local elections.

The rest of the chapter is organized as follows. The next section explores the reasons why the timing of corruption and partisan leanings can affect turnout once a scandal becomes public, and it outlines the main hypotheses tested. Section 3 defines the empirical analysis undertaken here and the database used. Section 4 discusses the estimation strategy. Section 5 presents the results and, lastly, section 6 concludes.

## **2. The Mobilization and Disaffection Effects of Corruption**

### **2.1. Previous Literature**

Neither the theoretical nor the empirical literature agrees on the exact relationship between corruption and voter turnout.<sup>3</sup> A major shortcoming of this existing literature is the lack of an analysis design that aims to identify the effects of corruption scandals: either an increase in electoral participation through the mobilization of voters or a decrease in electoral participation as a result of voter disaffection with the democratic process. Kostadinova's (2009) study of post-communist transitional countries already mention both a direct (mobilization) and an indirect (disaffection) effect of corruption on turnout. However, she considers corruption perceptions, which given their possible correlation with voting decisions, casts some doubt on the model's overall exogeneity.

It has been shown that good governance is related to the citizens' capacity to hold their politicians accountable (Adsera, *et al.*, 2003). Thus, if we understand elections to be an effective tool for accountability, individuals who feel betrayed corrupt politicians may cast their vote to remove them from power. In this instance, corruption can be said to act as a mobilization factor – some citizens, who might otherwise have abstained, go to the polls in order to punish the politician embroiled in the scandal. Likewise, following reports of a scandal, party members and sympathisers may also be mobilized to give their support to the politician accused of being corrupt, either in the belief that the allegations are false or out of a need to offer their unconditional support. Alternatively, in highly corrupt contexts characterised by clientelistic networks,

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<sup>3</sup> In most cases the empirical evidence confirms the negative relationship between corruption and turnout (Domínguez and McCann, 1998; Kostadinova, 2009; Birch, 2010; Chong *et al.*, 2012). By contrast, a few studies (Karahana *et al.*, 2006; Escaleras *et al.*, 2012) attribute corruption with a positive effect on turnout. Finally, some studies find no relationship between corruption scandals and voter turnout (Stockemer, 2013).

such scandals could stimulate turnout as corrupt politicians seek to buy voters so as to retain their power (Karahan *et al.*, 2006).

Conversely, corruption can also undermine voter turnout (Putnam, 1993; Warren, 2004; Chang and Chu, 2006). Corruption is detrimental to levels of citizen trust in local and national politicians (Solé-Ollé and Sorribas-Navarro, 2014), and this can result in cynicism and voter apathy. Disaffection means individuals are less likely to vote for what they see as corrupt political parties (Warren, 2004; Wagner *et al.*, 2009). If episodes of corruption recur, disaffected individuals may in the long run decide to disengage from the electoral system (Chong *et al.*, 2012) in the belief that given the widespread nature of corruption, replacing the corrupt incumbent with a new one will do nothing to remedy the situation. In the most extreme cases, widespread corruption might even result in doubts being cast on the sustainability of the whole democratic system (Kostadinova, 2009). Empirical evidence confirms this negative relationship between corruption and turnout (Domínguez and McCann, 1998; Andersen and Tverdova, 2003; Kostadinova, 2009; Stockemer, 2013; and Stockemer *et al.*, 2013).

## **2.2. Who is Affected by Corruption and Why?**

The literature therefore fails to differentiate between the relative importance of the mobilization and disaffection effects resulting from corruption scandals. It is our contention that this is because two crucial factors tend to be excluded from such analyses: the role of individual partisan leanings and the timing of corruption.

First, we consider that the mobilization and disaffection effects of corruption will differ depending on the strength of the voters' partisan attachment with the incumbent implicated in the scandal. Adopting a similar strategy to the one we adopt here, Chong *et al.* (2012) take the analysis one step further, and show with experimental evidence that exposing Mexican citizens to information on corruption not only reduces voter turnout, but also negatively affects voters' identification with the corrupt incumbent's party. They find that providing information about high levels of corruption has a more marked impact on the challenger's vote than it does on the incumbent's; however, their data do not allow them to determine whether voters with different degrees of partisanship respond differently to corruption.

Independent voters, i.e., those that only vote occasionally or who do not always vote for the same party, do not present such strong partisan attachments, and tend to be more deeply affected by shocks such as occasional episodes of corruption (Rundquist *et al.*, 1977; Feddersen and Pesendorfer, 1996; Sobbrío and Navarra, 2010; Stockemer, 2013). As such, the disaffection effect is expected to be more marked for them and so we would expect to observe independent voters withdrawing from the elections if corruption scandals occur. Hence, the first hypothesis regarding partisan attachment is:

*H1.a: Independent voters (i.e., those who do not always vote for the same party) are more likely to abstain if a corruption scandal becomes public.*

By contrast, core supporters have stronger partisan leanings and are unlikely to defect (Chong *et al.*, 2012). If partisan leanings are strong, citizens may disregard corruption as a determining factor in their decision and continue to vote for the party to which they are ideologically aligned (Peters and Welch, 1980; and Anderson and Tverdova, 2003). Ideology or party allegiance can also modify the way in which voters evaluate corruption, depending on the party to which the corrupt incumbent belongs. Anduiza *et al.* (2012) find, in support of this hypothesis, which individuals tend to present a partisan bias and are more tolerant of corruption if the politician involved is a member of their own party. If this were to be true, the core supporters of corrupt incumbents should be unaffected by corruption scandals when deciding to vote. Thus, the hypothesis we test is:

*H1.b: The incumbent's core supporters do not modify their electoral participation decision as a result of a corruption scandal involving the incumbent.*

In the case of the core supporters of the opposition parties, our expectation is that, even though they are aware of corruption scandals, they continue to vote for their party. It may also be the case that, in the presence of corruption, some opposition core supporters who would otherwise have abstained go to the polls to oust the corrupt incumbent. However, those who identify closely with a political party are more likely to vote (Norris, 2004), so we are unlikely to observe this mobilization effect. Hence our final hypothesis regarding partisan attachment is:



*H1.c: Opposition core supporters do not modify their electoral participation decision as a result of a corruption scandal involving the incumbent.*

Second, we consider that the timing of a scandal may modify the influence of the mobilization or disaffection effects of corruption on voters' participation decisions. There is evidence that voters tend to give greater weight to information received close to an upcoming election, as recent events have a stronger influence on their evaluations of the incumbent's performance (Fair 1978; Kramer 1971). A further explanation for the stronger effects of recent scandals on turnout is that voters are more attentive to the indicators of the incumbent's performance as an election approaches (Valentino and Sears 1998). Moreover, voters are not likely to recall so readily the details of the incumbent's earlier performance (i.e., old corruption cases) (Huber *et al.* 2012) and old episodes of corruption are more easily forgotten.

Thus, while in the short term corruption can mobilize voters to oust corrupt governments, the relationship may not hold if corruption is persistent over time. This hypothesis is based on the fact that the persistence of corruption can affect citizens' trust in the political system in different ways. Repeated cases of corruption over a period of years can result in citizens doubting the democratic system's capacity to make politicians accountable (Kostadinova, 2009). Solé-Ollé and Sorribas-Navarro's (2014) study shows that, for the Spanish case, corruption scandals have an impact on levels of citizen trust in local politicians. A lack of trust in the political system leads to disaffection and alienation from politics, which may result in voters withdrawing from the electoral process, i.e., increased rates of abstention. In such a scenario, repeated cases of corruption will set in motion a mechanism of disaffection via which corruption scandals reduce voter turnout.

Hence, the following hypothesis regarding the effects of the timing of corruption cases on voter turnout can be formulated:

*H2: Old corruption cases do not affect turnout, while recent scandals either have no effect or mobilize people to vote. Repeated cases of corruption over time reduce voter turnout as a result of the disaffection effect.*

In conducting our study, we analyse these hypotheses, both independently and together. We predict that independent voters – those more susceptible to defection – will be more sensitive to repeated episodes of corruption, which

will further erode their trust in the system. It is difficult to know how core supporters will react to the timing of corruption, as we predict that they are less likely to modify their electoral participation as a consequence of corruption.

### 3. Data and Empirical Analysis

#### 3.1. Data and Typology of Corruption Scandals

In order to carry out our analysis, we use a novel database that includes information on local corruption scandals in Spain, in addition to survey data on individual's voting behaviour from Spanish municipalities. We define a local corruption scandal as the 'public allegation of corruption brought to light by a newspaper'. Our data on these corruption cases is based on a report compiled by the *Fundación Alternativas* (2007). Following a wave of local corruption scandals in the early 2000s, this Spanish think-tank hired several journalists to compile all the corruption-related stories published in the national, regional and local media between January 2000 and January 2007. However, the time period we are interested in runs from the local elections in July 1999 to those held in May 2007. For this reason, we had to complete the *Fundación Alternativas* information with an internet-guided search<sup>4</sup> for news on corruption scandals. Overall, we found that a total of 565 municipalities had been affected by corruption during this period.<sup>5</sup> We also verified that our data did not present a partisan bias by comparing our information with other corruption maps compiled by the media outlets of different political ideologies. The percentage of corruption cases by political party did not differ significantly across these databases, verifying that our compilation of cases was not ideologically biased.

It should be stressed that during the early years of democracy (1979-1999), few local corruption cases were reported in the Spanish media (Jiménez and Caínzos, 2006). The cases we study here concern land use regulations, an area especially prone to corruption in Spain during the years of the housing boom. The cases involved local politicians taking bribes in return for introducing

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<sup>4</sup> We used a paid digital information management service, MyNews, covering all national and many of the regional newspapers until November 2009. Thus, we have an additional sample of corruption cases occurring between the local elections of 2007 and November 2009 that we use to perform a placebo test (see section 5.6).

<sup>5</sup> See Chapter 2 for more information on the construction of the corruption database.

changes in the municipal land use plan (i.e., modifying land uses). As Spain's municipal governments are responsible for land use regulation, this makes it easier to detect the effect of these scandals on electoral outcomes. In such cases, voters can clearly identify the incumbent as being guilty of land-use related corruption.

The number of corruption cases rose significantly in the late nineties, when the Spanish media started highlighting this form of corruption and the judiciary began their investigations. Indeed, the number of cases shot up after 1999 (see Chapter 2), peaking before the 2007 local elections. This distribution of corruption scandals makes the Spanish situation an optimal context in which to test our hypothesis that the exact timing of a corruption has a different effect on citizens' voting behaviour.

Our database includes 122 municipalities affected by corruption in the period from June 1999 to May 2007. We classified them into three sub-categories (used throughout our analysis) according to the *persistence* of corruption. First, 32 municipalities experienced at least one corruption scandal in the term 1999-2003, but no subsequent cases were reported after that date. We refer to these as '*old corruption cases*', since by the 2007 elections voters can be expected to have only a distant memory of these scandals. Second, 58 municipalities experienced at least one corruption scandal in the term 2003-2007, but no cases of corruption had been reported in the previous term. We refer to these as '*recent corruption cases*' from the perspective of an individual deciding how (or whether) to vote at the 2007 local election. Third, we also considered those municipalities that have experienced repeated episodes of corruption, at least one case in both the 1999-2003 and in the 2003-2007 terms of office. A total of 32 municipalities are classified in the category of '*repeated corruption cases*'.

Hence, overall our corruption database indicates whether at least one corruption scandal was made public between June 1999 and May 2007 (the two terms of office analysed). Since our objective is to measure the impact of corruption, we need a sample of individuals from corruption-free municipalities that can be compared with those from municipalities affected by scandals. The fact of using a matched set of municipalities allows us to balance the distribution of covariates between *corruption-ridden* and *corruption-free* municipalities and so avoid biased estimations.

### **3.2. The Matching Strategy**

In order to construct the sample for analysis we use a database that identifies a control group for each of the municipalities affected by corruption. Hence, a matching procedure was followed to select the corruption-free municipalities that could be compared with the corruption-ridden municipalities (our control and treatment groups, respectively). Implementation of the matching strategy allowed us to balance the covariates in the two subsamples. We ended up with a treatment group of 122 municipalities that had experienced at least one corruption scandal between 1999 and 2007. These, plus 97 control municipalities that did not experience any corruption in those years, constitute the 219 municipalities included in our database.<sup>6</sup>

To confirm the quality of the match between the sample of treatment and control municipalities used in this chapter we conducted various tests. We first analysed the percentage reduction in the standardised bias as the result of the matching procedure, finding a considerable decrease that showed a statistically significant bias before the matching. Second, we performed a comparison of means between the treatment and control units in the unmatched and matched samples (see Rosenbaum and Rubin, 1985). Table A.2. in the Appendix shows the means of each group for all variables considered when performing the matching. The last column of the table reports the test and p-values of the differences in means between the treatment and the control groups. On matching the sample, these differences are no longer statistically significant. Third, we re-calculated the propensity score on the matched sample and compared the pseudo-R<sup>2</sup> before and after matching.<sup>7</sup>

We also performed a difference in means test for the individual level variables used in our analysis, using the survey observations as the treatment and control groups. The results of this test verify that interviewees from our treatment and control groups not only live in very similar municipalities, but also share the same individual traits. Table A.3. shows that the same

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<sup>6</sup> Solé-Ollé and Sorribas-Navarro (2014) originally selected a sample of 160 treatment municipalities and 131 controls for scandals between 1999 and 2009. For the specific purposes of this study we restricted the cases to those occurring before the 2007 local elections, and these are the matched sub-sample data that we use. All tests to verify that a good matching was achieved were conducted with both samples.

<sup>7</sup> They were 0.237 and 0.002, respectively. LR tests of joint significance of the regressors before and after the matching have values of 1871.77 and 2.32, with p-values of 0.000 and 0.941.

conclusions regarding matching quality are drawn when we use our individual sample data. For this reason we consider that matching at the individual level is not necessary in our case since the citizens interviewed in the treatment and control municipalities are already very similar.

After performing all these tests we can confirm that the sample of treatment and control municipalities selected for this chapter were successfully balanced in their baseline characteristics across the groups, both for the municipalities and the individuals analysed. An additional advantage of the matching procedure is that it ensures complete transparency and guarantees the predetermined nature of our research design. Since the matching algorithm has to be applied before the estimation of the treatment, the decisions taken at this stage are not influenced by any information from the estimation results (Ho *et al.*, 2007).

### **3.3. Data on Individual Turnout and Corruption Perceptions**

This chapter draws on the results of a survey specially designed for use in the selected matched municipalities.<sup>8</sup> The survey was conducted in November 2009 and specifically asked if the interviewee had voted in the 2007 local elections or not. Here, we use this information to obtain an indicator of individual electoral turnout.<sup>9</sup>

Among other socioeconomic characteristics, the survey included questions about the respondents' political preferences (e.g., partisan attachment and ideology), and information on a series of socio-economic controls (e.g., unemployed, type of job, marital status, etc.). A specific question included in the survey concerned the respondents' corruption perceptions: 'What level of corruption is there in local government, do you think?' The interviewees were asked to indicate one of following five levels: 5 'very high', 4 'high', 3 'medium', 2 'low', and 1 'none'.<sup>10</sup>

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<sup>8</sup> The questionnaire designed by Solé-Ollé and Sorribas-Navarro (2014) is available upon request. Box A.1. in the Appendix includes a description of the survey.

<sup>9</sup> The specific question asked in the survey was: 'Did you vote at the last local elections held in May 2007?' Our main dependent variable considers those individuals that reported having voted at that election, excluding from the analysis those who were either too young to vote or who were not registered in that municipality at that time.

<sup>10</sup> Two additional categories (*Don't know* and *No answer*) were used but they are not included in our analysis.

As Table A.1 shows, the average turnout of our sample is slightly higher than the figure reported in the official statistics.<sup>11</sup> Previous papers have also suffered from this ‘overreporting’ bias, explained by both the misreporting of non-voters among the survey’s respondents and the overrepresentation of actual voters (Traugott, 1989). However, several studies have shown that the overreporting problem has no real impact on the implications of the models’ estimations, which seek to shed light on the factors that may influence voting or abstention (Hillygus, 2003). Further, recent research shows that participation in surveys does not increase the probability of turning out to vote (Mann, 2005). Thus, we are confident of the implications of our results.

### 3.4. Data on Individuals’ Partisan Leanings

In order to test our hypothesis regarding the effects of partisan leanings on voter turnout, we classified interviewees according to the degree of partisan attachment shown and their self-reported ideology. To build our variables of partisan attachment we used the following survey question: ‘Do you usually vote for the same party at municipal elections?’ Interviewees who said they always vote for the same party were classified as ‘*core supporters*’; all others were classified as ‘*independent voters*’.<sup>12</sup> Note, independent voters include those that switch their vote from one election to another as well as those who do not always vote. As Table A.1 shows, ‘*independent voters*’ represent slightly more than half of our sample of individuals.<sup>13</sup>

In the survey, interviewees were also asked to place themselves on the left-right spectrum using a seven-point scale, where 1 represents ‘extreme left’ and 7 represents ‘extreme right’.<sup>14</sup> We also classified Spain’s political parties based on a combination of the party’s own ideological statements (where available), online rankings, as well as *ad hoc* rules for specifying party ideology. Our

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<sup>11</sup> The actual voter turnout at the 2007 Spanish local elections for the municipalities analysed was 68.9%. More information on Spanish electoral outcomes can be found at: <http://www.infoelectoral.mir.es/min/>

<sup>12</sup> Individuals who answered *Don’t know* or *No answer* were considered as ‘independent voters’. Interviewees who were too young to vote in the 2007 local elections were excluded from our analysis.

<sup>13</sup> This value is in line with that reported in other countries. For example, the 2013 [Gallup Poll](#) result estimated that, on average, forty-two per cent of Americans identified themselves as political independents.

<sup>14</sup> Interviewees who did not select any ideological position as an answer were classified as neither leaning to the left nor to the right, but as centre voters.

specification is necessarily arbitrary, but we consider it to account for the complex reality of the Spanish state.<sup>15</sup>

To avoid any errors in our classifications we normalised both databases – interviewees’ self-reported ideology and party ideology – into a three-point scale, where 1 represents ‘left’, 2 ‘centre’ and 3 ‘right’. We then combined the information in these two databases to determine whether each individual’s ideology matched that of the incumbent party. With this information we were then able to define the ‘*incumbent core supporters*’ as those core supporters who shared the ideology – left, centre or right – of the party forming the government in the term prior to the 2007 local elections (2003-2007). We classified the remaining core supporters as ‘*opposition core supporters*’.

#### **4. Estimation Strategy**

In line with Ho *et al.*’s (2007) proposal, we use the same parametric analysis on the matched sample as we would have used to analyse the original raw data. Derived for the dichotomous behaviour of our dependent variable – turnout – we use a Logit model. We need to bear in mind that when the matching is not exact the matching estimator will be biased in finite samples (Abadie and Imbens, 2002). Therefore, to reduce the biased term that remains after matching, we perform an additional bias correction, adjusting for covariates (Rubin, 1979; Dehejia and Wahba, 1999). Specifically, we run a Logit model with the matched sample and the covariates used in the estimation of the propensity score (Ho *et al.*, 2007).

Since matching with replacement was used to select the survey sample, we need to perform adjustments when implementing our analysis. We use weights in all estimations to ensure that the parametric analysis reflects the actual observations (Ho *et al.*, 2007; Dehejia and Wahba, 1999). Thus, we weight the control municipalities by the number of times they are matched to a municipality affected by corruption. To deal with the multilevel structure of the dataset, with individuals belonging to different municipalities, in all the estimations we cluster standard errors at the municipality level. There are 219 municipalities in our general estimation.

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<sup>15</sup> The classification (on the left-right spectrum) of the more than 200 Spanish political parties in office for the 2003-2007 term is available on request from the authors.

In order to measure the effect of corruption scandals on the voter turnout of an individual, we estimate the following general specification:

$$Pr (Vote_{ij} = 1) = \alpha + \beta_1 Corruption_j + \delta X' + \varepsilon_{ij} \quad (1)$$

where  $Vote_{ij}$  is a dummy variable equal to one if the individual  $i$  voted in municipality  $j$  in the 2007 local elections;  $Corruption_j$  is a dummy variable equal to one if at least one corruption scandal was made public in municipality  $j$  between June 1999 and May 2007 (two terms of office);  $X'$  is a vector that includes the covariates used in the propensity score estimation and additional individual-level information from the survey;<sup>16</sup> and  $\varepsilon_{ij}$  is the error term. The sign of  $\beta_1$  in Equation (1) indicates which effect – that is, mobilization (positive sign) or disaffection (negative sign) – predominates after a scandal is made public.

In order to capture the effects of partisan leanings on the voter turnout of an individual, and to test our hypotheses that certain individuals are more (or less) likely to vote as a result of corruption, we estimate alternative specifications of our model. We include in Equation (1) interactions between corruption scandals and the variables indicating if the individual is an ‘*independent voter*’, an ‘*incumbent core supporter*’ or an ‘*opposition core supporter*’.

$$\begin{aligned} Pr(Vote_{ij} = 1) = & \alpha + \beta_1 Corruption_j + \beta_2 IncumbentCore_i \\ & + \beta_3 OppositionCore_i + \beta_4 Corruption_j x IncumbentCore_i \\ & + \beta_5 Corruption_j x OppositionCore_i + \delta X' + \varepsilon_{ij} \end{aligned} \quad (2)$$

In Equation (2) we include interaction terms between the dummy variable that indicates if a corruption scandal has been made public in municipality  $j$  for the period analysed, and two dummy variables that indicate whether the individual is an incumbent or an opposition core supporter.<sup>17</sup> Hence, for independent voters the effect of corruption scandals on their participation decision is

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<sup>16</sup> We consider the following individual-level survey variables: income, education, gender, age, divorced, unemployed, student, retired, and immigrant.

<sup>17</sup> A detailed description of how the partisan leaning variables are built is included in Section 3.4.



identified by the estimation of the coefficient  $\beta_1$  (where *'independent voter'* is the base category of *'incumbent core supporter'* and *'opposition core supporter'*).

In the interaction model of Equation (2) the coefficients estimated for *'incumbent core supporter'* and *'opposition core supporter'* ( $\beta_2$  and  $\beta_3$ , respectively) are no longer interpretable as the unqualified turnout difference between the incumbent and the opposition's core supporters with and without corruption scandals in their municipalities. Once these interactions are included in the model, these coefficients no longer represent a meaningful partial effect.

The impact of corruption scandals on core supporters is represented by the linear combination of the estimated coefficients of *'corruption'* ( $\beta_1$ ) and those of the *'incumbent core supporter'* or *'opposition core supporter'* ( $\beta_4$  or  $\beta_5$ , respectively). These effects do not appear directly in the model, and the significance of their linear combination must be tested after the estimation.

All the corruption coefficients in Equations (1) and (2) estimate the overall effect of scandals on turnout, regardless of the timing of the corruption cases. To capture the different effects of corruption occurring at different points in time, we first estimate Equation (1) defining three different subsamples of corruption scandals: *'old corruption cases'* (municipalities that experienced scandals in the 1999-2003 term, but none thereafter); *'recent corruption cases'* (municipalities that experienced scandals in the 2003-2007 term, but none previously); and *'repeated corruption cases'* (municipalities that experienced scandals in both the 1999-2003 and 2003-2007 terms).

In order to estimate Equation (1) for each of these three corruption subsamples we adjusted the matching data to include just those municipalities affected by the specific corruption type under analysis and their pertinent controls. When the matching techniques were first applied to select the control municipalities in which to run the survey, the three subsamples – *old*, *recent*, and *repeated corruption cases* – were not considered separately. Taking the specific subsamples of the corruption-ridden municipalities under analysis and then applying a new matching procedure to each of them would have required a two-stage matching procedure. Unfortunately, this procedure was not adopted at that juncture. However, for all the estimations that consider the timing of the episode of corruption, the sample was adjusted to the specific group of treated municipalities, as well as their respective controls assigned during the full matching procedure. Thus, while we need to exercise some caution when interpreting the results from the matched data for these

subsamples, we achieved a good balance between the corresponding treatment and control groups.

As for the effects of corruption scandals on voter turnout, we also consider the combined cases of different corruption timings and individual partisan leanings. This interaction model follows the Equation (2) specification for each of the three subsamples of corruption scandals: *old*, *recent*, and *repeated corruption cases*. The interpretation of the coefficient is the same as in Equation (2).

Finally, to account for the possibility that our results are driven by the fact that citizens are unaware of the corruption scandals, we analyse the effect of these scandals on individuals' corruption perceptions. Specifically, we estimate Equation (2) using as a dependent variable the local corruption perceptions of the interviewees. The same covariates used in the previous estimations are included. The interpretation of the interaction effects is the same as in Equation (2) and Table 3. However, to account for the fact that our dependent variable is now categorical we estimate an Ordered Logit model.

## 5. Results

Our empirical study is structured in five different phases. First, we analyse how individuals modify their participation at local elections if a scandal implicating the incumbent has been reported in either of the two previous terms of office. Next, we compare the individual turnout of citizens at these elections in terms of their degree of partisan attachment. Third, we evaluate how the timing of corruption affects the participation decision. Fourth, we combine the different timings of corruption scandals and an individual's partisan leanings. Finally, we observe how scandals modify corruption perceptions so as to better understand the electoral behaviour of the individuals analysed.

### 5.1. General Results

The results of the Logit estimation of Equation (1) using our matched sample are presented in Table 1.<sup>18</sup>

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<sup>18</sup> Complete results for the covariates have been omitted for reasons of space but are available upon request.

Table 1: *Effects of corruption scandals on voter turnout: all corruption cases.*

	(1)	(2)	(3)	(4)
Corruption	-0.146 (0.088)*	-0.165 (0.071)**	-0.164 (0.087)*	-0.164 (0.074)**
<i>Contextual-level variables</i>	NO	YES	NO	YES
<i>Individual-level variables</i>	NO	NO	YES	YES
<i>Observations</i>	8,014	8,014	8,014	8,014

Notes: (1) Dependent variable: whether the individual has voted (=1) or not (=0); (2) Standard errors clustered at the municipal level in parentheses; \*\*\*:  $p < 0.01$ . \*\*:  $p < 0.05$ . \*:  $p < 0.1$ ; (3) Estimation method: Maximum Likelihood; (4) Treated observations weighted as 1, and control observations weighted by the number of times they are matched to a treatment observation.

We find that the revelation of a corruption scandal implicating the incumbent makes it less likely for an individual to vote at the local elections. This negative and statistically significant effect on voter turnout holds when we adjust both for the contextual-level variables and the individual characteristics (columns 2 to 4). As explained above, the adjustment for covariates in our model seeks to reduce the potential bias that remains after matching. However, the fact that our results are robust to the inclusion and exclusion of these covariates indicates that this bias is not a relevant issue in our estimation.

Our negative estimation of the corruption coefficient indicates that, overall, the disaffection effect of corruption prevails over the mobilization factor. However, the interpretation of the logistic coefficients is not straightforward. To measure the substantive effects of the significant factors and to better understand the consequences of these findings we compute a simulation of the impact of a corruption scandal being made public. For this reason we use our estimates to perform a series of predictions for an average voter.<sup>19</sup> We focus on the estimated changes in the probability of voting that result from the occurrence or otherwise of a corruption scandal in that municipality, holding all other variables constant. Thus, the predicted turnout probabilities were simulated using the significant coefficients from the Logit estimation of Equation (1). Predicted probabilities indicate that, on average, the revelation of a corruption scandal reduces an individual's probability of voting by 2.1 percentage points. This implies a 1.5% decrease in the likelihood that an individual from a corrupt municipality will vote as a consequence of the scandal being made public. Given that turnout at the 2007 local elections for

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<sup>19</sup> These and all subsequent predicted coefficients were simulated using the CLARIFY program in Stata (Tomz *et al.* 2000), available at <http://gking.harvard.edu/>

the municipalities analysed is 68.7%, with a standard deviation of 8.4%, our results indicate that corruption scandals account for a significant – albeit not huge – fall in aggregate turnout levels.

## 5.2. Partisan Leanings

The estimations in Table 1 show how all citizens considered as an aggregate group react to corruption scandals. However, as discussed, depending on their partisan leanings, some individuals might be mobilized to vote, while others might decide to withdraw from the elections as a consequence of the scandals. Table 2 shows the Logit estimation of Equation (2), as well as the linear combinations of the different coefficients.

The estimations in Table 2 are controlled by the fact that the individual can be either an independent voter or a core supporter of the incumbent or opposition, while they also include interaction terms between corruption and an individual's partisan leanings. Following the same strategy as in Table 1, column (1) estimates the model without adjusting for covariates, column (2) includes contextual-level variables, column (3) includes individual-level variables, and column (4) accounts for both groups of controls. The corruption coefficient is not statistically significant when the covariates are not included in the specification. Once they are included in the model, all estimations indicate a negative and statistically significant effect of corruption. Adjusting for covariates reduces the bias that remains after matching, and the estimation of the coefficient is stable in all specifications.

Table 2 also reports the linear combinations for the statistically significant interactions between corruption and an individual's degree of partisanship. With this information we can verify the hypotheses formulated in Section 2.1 regarding partisan leanings. Our first hypothesis (*H1.a*) states that independent voters are more likely to abstain if a corruption scandal is made public. Our results show that this holds once we adjust for covariates. The difference in the predicted probability of voting in the case of the independent voter, as the corruption variable (*'all corruption cases'* category) changes from zero to one, is 3.6 percentage points, revealing a 4.4% reduction in the independent voter's likelihood of voting.

To consider the reaction of the core supporters we need to observe (see Table 2) the linear combinations of coefficients associated with *'corruption'* and its interaction with *'incumbent'* or *'opposition core supporter'* in Equation (2).

Hypothesis *H1.b* considers those regular voters that share the same ideology as the party holding office in local government. We predict that partisan leanings make individuals more tolerant of their own party's corruption and so they do not change their participation decision in response to a scandal. Our results confirm this, suggesting that voters tend to accept evidence of the incumbent's corruption if they belong to the same party (Anduiza *et al.*, 2012).

Table 2: *Effects of corruption scandals and individual's partisan leanings on voter turnout. Logit results.*

	(1)	(2)	(3)	(4)
<i>Corruption</i>	-0.189 (0.145)	-0.213 (0.123)*	-0.237 (0.140)*	-0.244 (0.133)*
<i>Corruption x Inc. core sup.</i>	-0.035 (0.230)	0.002 (0.218)	0.043 (0.236)	0.088 (0.226)
<i>Corruption x Opp. core sup.</i>	0.140 (0.265)	0.154 (0.270)	0.218 (0.272)	0.223 (0.279)
<i>Incumbent core sup.</i>	-0.257 [0.249]	-0.224 [0.294]	-0.221 [0.392]	-0.194 [0.390]
<i>Test: <math>\beta_1 + \beta_4 \neq 0</math></i>				
<i>Opposition core sup.</i>	-0.034 [0.826]	-0.049 [0.778]	-0.059 [0.756]	-0.019 [0.917]
<i>Test: <math>\beta_1 + \beta_5 \neq 0</math></i>				
<i>Contextual-level variables</i>	NO	YES	NO	YES
<i>Individual-level variables</i>	NO	NO	YES	YES
<i>Observations</i>	8,014	8,014	8,014	8,014

Notes: (1) Dependent variable: whether the individual has voted (=1) or not (=0); (2) Standard errors clustered at the municipal level in parentheses; \*\*\*:  $p < 0.01$ . \*\*:  $p < 0.05$ . \*:  $p < 0.1$ ; (3) Estimation method: Maximum Likelihood; (4) Treated observations weighted as 1, and control observations weighted by the number of times they are matched to a treatment observation; (5) Test of linear combinations of coefficients  $\beta_1 + \beta_4/5 \neq 0$ , measuring the interaction's total effect. p-values in brackets.

Finally, in order to verify *H1.c*, which hypothesizes about the response of the core supporters of the opposition parties, we analysed the linear combinations of coefficients associated with 'corruption' and its interaction with 'opposition core supporter' in Equation (2). Our test results verify that opposition core supporters do not change their electoral participation. It should be borne in mind that the estimations in Tables 1 and 2 measure the overall impact of any scandal that broke out between June 1999 and May 2007. For this reason in the following sub-section the persistence of corruption scandals is taken into account.

### 5.3. Timing of Corruption

To test our hypothesis that cases of corruption occurring at different points in time may affect an individual's participation decision, we considered the following three subsamples: '*old corruption cases*', '*recent corruption cases*' and '*repeated corruption cases*'. The Logit results of these estimations are presented in Table 3.

Table 3: *Effects of corruption scandals on voter turnout: timing of corruption.*  
Logit results.

Panel A	(1)	(2)	(3)	(4)
<i>Old corruption cases</i>	-0.143 (0.162)	-0.139 (0.135)	-0.151 (0.151)	-0.124 (0.130)
<i>Observations</i>	1,796	1,796	1,796	1,796
Panel B	(1)	(2)	(3)	(4)
<i>Recent corruption cases</i>	0.046 (0.112)	-0.000 (0.112)	0.065 (0.112)	0.033 (0.112)
<i>Observations</i>	3,129	3,129	3,129	3,129
Panel C	(1)	(2)	(3)	(4)
<i>Repeated corruption cases</i>	-0.329 (0.125) ***	-0.276 (0.116) **	-0.384 (0.140) ***	-0.324 (0.118) ***
<i>Observations</i>	3,089	3,089	3,089	3,089
<i>Contextual-level variables</i>	NO	YES	NO	YES
<i>Individual-level variables</i>	NO	NO	YES	YES

Notes: (1) Dependent variable: whether the individual has voted (=1) or not (=0); (2) Standard errors clustered at the municipal level in parentheses; \*\*\*,  $p < 0.01$ . \*\*,  $p < 0.05$ . \*,  $p < 0.1$ ; (3) Estimation method: Maximum Likelihood; (4) Treated observations weighted as 1, and control observations weighted by the number of times they are matched to a treatment observation.

In these estimations the matching sample has been adjusted to include the municipalities affected by the specific corruption cases analysed, as well as their pertinent controlled pairs.

Panels A and B in Table 3 show the results of the estimation of Equation (1) considering '*old corruption cases*' and '*recent corruption cases*', respectively. None of the estimations are statistically significant, indicating that neither corruption cases that occurred some years previously nor cases coming to light in the period immediately preceding the elections modify the individual's electoral participation decision. Citizens appear not to remember old scandals, and our results fail to support the idea that individuals attach greater importance to more recent cases of corruption (Fair 1978; Kramer 1971). This might be because citizens perceive information received in the period leading up to the

elections as electoral noise and are unable to distinguish between real episodes of corruption and the electoral strategies of the opposition.

By contrast, Panel C shows that repeated episodes of corruption do have an impact on voter turnout, with individuals resident in these municipalities more likely to abstain in the local elections. After experiencing corruption scandals in consecutive terms of office, citizens may begin to call into question the efficiency of elections as a tool for ensuring the accountability of their representatives. This will lead to an increase in disaffection, resulting in some individuals withdrawing from the electoral process. Thus, persistent evidence of corruption means the disaffection effect becomes more predominant than the mobilization factor, reducing voter turnout.

Predicted probabilities indicate a fall of 4.5 percentage points in the individual turnout for citizens from municipalities that have experienced at least one corruption scandal in both terms of office analysed (1999-2003 and 2003-2007). This reduction represents a 4.8% fall in the probability of their voting, a much higher value than the 1.4% decrease obtained when we considered all corruption cases.

These results confirm our hypothesis regarding the timing of corruption (*H2*): occasional episodes of corruption (either old or recent) have no effect on voter turnout, while repeated scandals make an individual less likely to vote. Following this analysis of individual reactions to corruption (depending on partisan leanings) and how scandals occurring at different times modify voter turnout, we proceed to estimate the combined effect of both factors.

#### **5.4. Timing of Corruption and Partisan Leanings**

Table 4 shows the Logit estimation of Equation (2) considering all corruption cases and the three subcategories of scandals: '*old corruption cases*', '*recent corruption cases*' and '*repeated corruption cases*'. It also reports the results of the linear combination tests for the different coefficients.<sup>20</sup>

Column (1) in Table 4 measures the impact of all corruption cases (*corruption*) occurring between 1999 and 2007 on voter turnout, controlling for the fact that the individual might be an independent voter or an incumbent or

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<sup>20</sup> Tables 4 and 5 show the estimation adjusted for both the contextual-level variables and the individual characteristics. Alternative estimations not adjusting for those covariates lead to the same results, but they have been omitted for reasons of space. Complete results are available upon request.

opposition core supporter. Column (2) considers the same equation and category of corruption cases, also including the interactions terms between corruption types and an individual's partisan leanings. Columns (3) and (4) follow the same specification for the subsample 'old corruption cases', (5) and (6) for 'recent corruption cases' and finally, (7) and (8) for 'repeated corruption cases'. Even with the introduction of partisan leanings, scandals are significant for all corruption cases and repeated corruption (columns (1) and (7), respectively).

Table 4: *Effects of timing of corruption scandals and individual's partisan leanings on voter turnout. Logit results.*

	<i>All corruption cases</i>		<i>Past corruption cases</i>		<i>Recent corruption cases</i>		<i>Repeated corruption cases</i>	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Corruption</i>	-0.180 (0.078)**	-0.244 (0.133)*	-0.166 (0.137)	-0.268 (0.174)	0.004 (0.119)	-0.036 (0.155)	-0.309 (0.127)**	-0.368 (0.190)*
<i>Corruption x Inc. core sup.</i>	---	0.088 (0.226)	---	0.007 (0.382)	---	0.203 (0.306)	---	-0.053 (0.389)
<i>Corruption x Opp. core sup.</i>	---	0.223 (0.279)	---	0.529 (0.305)*	---	0.043 (0.287)	---	0.259 (0.382)
<i>Incumbent core sup.</i>	---	-0.156	---	-0.261	---	0.167	---	-0.421
<i>Test: <math>\beta_1 + \beta_4 \neq 0</math></i>		[0.440]		[0.439]		[0.552]		[0.194]
<i>Opposition core sup.</i>	---	-0.021	---	0.261	---	0.007	---	-0.109
<i>Test: <math>\beta_1 + \beta_5 \neq 0</math></i>		[0.912]		[0.338]		[0.976]		[0.708]
<i>Contextual-level variables</i>	YES	YES	YES	YES	YES	YES	YES	YES
<i>Individual-level variables</i>	YES	YES	YES	YES	YES	YES	YES	YES
<i>Observations</i>	8,014	8,014	1,796	1,796	3,129	3,129	3,089	3,089

Notes: (1) Dependent variable: whether the individual has voted (=1) or not (=0); (2) Standard errors clustered at the municipal level in parentheses; \*\*\*:  $p < 0.01$ . \*\*:  $p < 0.05$ . \*:  $p < 0.1$ ; (3) Estimation method: Maximum Likelihood; (4) Treated observations weighted as 1, and control observations weighted by the number of times they are matched to a treatment observation; (5) Test of linear combinations of coefficients  $\beta_1 + \beta_{4/5} \neq 0$ , , measuring the interaction's total effect. p-values in brackets.

Our results show that hypothesis *H1.a* - that independent voters are more likely to abstain if a scandal is made public - holds when repeated corruption cases are taken into account (column (8)). As Table 2 shows, *H1.a* is also true when we analyse all corruption cases (column (2)). Old and recent corruption cases do not affect the participation decision of independent voters. When considering independent voters only, the overall effect of corruption reduces



the estimated probability of voting by 3.6 percentage points. As a result, independent voters are 4.4% less likely to vote if at least one corruption scandal has been revealed in their municipalities between 1999 and 2007. Repeated cases of corruption account for a 6.3% reduction in their predicted probability of voting, implying a decrease of 5.3 points as the '*repeated corruption cases*' variable changes from zero to one. Hence, we can affirm that in this instance corruption cases do have an effect on independent voters, who will tend to withdraw from the elections as a consequence of increasing disaffection.

Hypothesis *H1.b* claims that higher degrees of partisanship make individuals more tolerant of corruption within their own party. Hence, we expect incumbent core supporters not to modify their participation in the elections as a consequence of corruption. As seen in Table 2, the hypothesis is found to hold even when the different sub-categories of corruption are considered.

If we analyse the behaviour of the opposition core supporters we can see, from the linear combinations shown in Table 4, that they do not modify their electoral participation. This holds for all the corruption categories analysed. Our results verify that the turnout of opposition core supporters does not increase if a scandal is revealed but remains unchanged.

The results in Table 4 show that neither the incumbent's core supporters nor those of the opposition modify their voting behaviour as a consequence of corruption scandals. We are therefore unable to identify any effect of corruption on the core supporters' level of electoral participation. This could indicate that the mobilization and the disaffection effects cancel each other out for individuals with a strong attachment to a political party. To verify this, and also to determine whether core supporters fail to see their party malfeasance as corruption (or if they do yet nevertheless opt to vote for them), we estimate the effect of corruption scandals on individuals' corruption perceptions.

## **5.5. Corruption Perceptions**

Table 5 shows the Ordered Logit estimation of Equation (2) using as a dependent variable the local corruption perceptions of the interviewees, as well as the linear combinations of the interaction coefficients. Our results show that, except for old corruption cases, scandals always increase independent voters' perceptions of corruption, even controlling for individuals'

partisan leanings. However, after including the interaction effects between scandals and ideology in our model, our results are no longer homogeneous across all groups of individuals.

The corruption perceptions of the incumbent's core supporters do not increase for any of the corruption types. Indeed, these citizens do not seem to be aware that their party is involved in a scandal, either because they fail to attach any value to the importance of the scandals attributed to the incumbent or they simply fail to believe the accusations of corruption. Or, it might be that the incumbent's core supporters are more tolerant when judging scandals affecting their own party, even while recognising the potential existence of corruption (Anduiza *et al.*, 2012).

Considering all corruption cases (*corruption*), the corruption perceptions of both independent voters and the opposition's core supporters rise after a scandal is made public. We have already shown that the opposition's core supporters do not modify their participation decision as a consequence of these scandals, but they do report higher levels of corruption perception. This supports our suspicion that if corruption is present, core supporters of opposition parties maintain their support for their party in an attempt at ousting the corrupt incumbent. We have no evidence of a mobilization effect for these individuals, which is not unexpected given that core supporters by definition tend to vote. However, we can conclude that the disaffection effect is not relevant in the case of opposition core supporters.

For *'old corruption cases'*, the corruption perceptions of all groups of individuals remain unchanged. This can be attributed to the fact that voters seem to have short memories in relation to old scandals. While independent voters are less likely to vote in municipalities marked by old corruption cases, they do not report higher levels of corruption perceptions. It would seem that voters in municipalities that reported corruption scandals in the past had already modified their perceptions by the time our survey was conducted; hence, they did not subsequently report an increased awareness of corruption. For *'recent corruption cases'*, the corruption perceptions of both independent voters and the opposition's core supporters increase after a scandal is made public. However, we did not find any effect on the turnout in either group. Hence, in the short term, local scandals do affect the corruption perceptions of independent voters and the opposition's core supporters, but this does not immediately affect individuals' electoral participation decisions. Finally, *'repeated corruption cases'* also increase the corruption perceptions of both independent voters and

the opposition’s core supporters. However, only the turnout of independent voters is affected by the persistence of corruption.

Table 5: Effects of corruption scandals on individual's corruption perceptions. Ordered Logit results.

	<i>All corruption cases</i>		<i>Past corruption cases</i>		<i>Recent corruption cases</i>		<i>Repeated corruption cases</i>	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Corruption</i>	0.327 (0.108)***	0.358 (0.117)**	0.194 (0.163)	0.261 (0.197)	0.356 (0.131)***	0.417 (0.161)***	0.391 (0.171)**	0.360 (0.193)*
<i>Corruption x</i>	---	-0.325	---	-0.262	---	-0.397	---	-0.183
<i>Inc. core sup.</i>		(0.146)**		(0.277)		(0.216)*		(0.227)
<i>Corruption x</i>	---	0.146	---	-0.045	---	0.105	---	0.237
<i>Opp. core sup.</i>		(0.130)		(0.231)		(0.176)		(0.182)
<i>Incumbent core sup.</i>	---	0.032	---	-0.001	---	0.020	---	0.177
<i>Test: <math>\beta_1 + \beta_4 \neq 0</math></i>		[0.796]		[0.997]		[0.914]		[0.384]
<i>Opposition core sup.</i>	---	0.505	---	0.216	---	0.521	---	0.597
<i>Test: <math>\beta_1 + \beta_5 \neq 0</math></i>		[0.002]		[0.339]		[0.004]		[0.014]
<i>Contextual-level variables</i>	YES	YES	YES	YES	YES	YES	YES	YES
<i>Individual-level variables</i>	YES	YES	YES	YES	YES	YES	YES	YES
<i>Observations</i>	6,259	6,259	1,387	1,387	2,394	2,394	2,478	2,478

Notes: (1) Dependent variable: Perceptions of local political corruption: 5=Very High Corruption. 4=High. 3=Medium. 2=Low. 1=None. (2) Standard errors clustered at the municipal level in parentheses; \*\*\*, p<0.01. \*\*, p<0.05. \*, p<0.1. (3) Estimation method: Maximum Likelihood; (4) Treated observations weighted as 1, and control observations weighted by the number of times they are matched to a treatment observation; (5) Test of linear combinations of coefficients  $\beta_1 + \beta_4/5 \neq 0$ , measuring the interaction's total effect. p-values in brackets.

In order to estimate the actual impact of corruption scandals on individuals’ perceptions we again follow a simulation-based (Tomz *et al.*, 2000). Table 6 reports the simulations of the predicted changes in probability of voting in the corruption perceptions using the significant coefficients obtained from the Ordered Logit estimation of Equation (2) using as a dependent variable the local corruption perceptions of the interviewees.

The model simulations included all the contextual and individual covariates, as well as the whole set of interactions (columns (2), (4), (6) and (8) in Table 5). We see that when a corruption scandal breaks out independent voters are 3.2 percentage points more likely to perceive their municipality as having ‘very high’ levels of corruption. This value rises to 4 points for recent corruption cases. However, as we saw in Table 4 this does not imply that independent voters withdraw from the elections if a recent corruption case has been revealed in their municipality. A similar effect is seen for the opposition’s core

supporters, which are 3 percentage points more likely to perceive ‘very high’ levels of corruption if a scandal breaks out, while for repeated cases of corruption, they are 3.9 points less likely to consider there to be no corruption (‘none’) in their municipality. This value for independent voters is 3.5 points. However, as we see in Table 5, modifications in perceptions following the reporting of a scandal depend to a large extent on the individual’s baseline corruption perceptions. That is, if independent voters already have a very low opinion of their local politicians’ integrity, they are less likely to report an increase in their corruption perceptions once a scandal is made public. In any case, the information included in Tables 4-6 indicates that corruption perceptions are not immediately translated into electoral actions for all individual types.

Table 6: *Effects of corruption scandals on individual's corruption perceptions. Simulations.*

	Perceptions of local political corruption category				
	None	Low	Medium	High	Very High
<b>All Corruption Cases</b>					
<i>Independent Voters</i>	-0,053	-0,035	0,007	0,049	0,032
<i>Incumbent core supporter</i>	-0,059	-0,028	0,010	0,049	0,028
<i>Opposition core supporter</i>	-0,056	-0,031	0,009	0,049	0,030
<b>Old corruption cases</b>					
<i>Independent Voters</i>	-0,044	-0,033	0,007	0,048	0,022
<i>Incumbent core supporter</i>	-0,047	-0,029	0,008	0,048	0,020
<i>Opposition core supporter</i>	-0,048	-0,027	0,009	0,047	0,019
<b>Recent corruption cases</b>					
<i>Independent Voters</i>	-0,070	-0,044	0,008	0,066	0,040
<i>Incumbent core supporter</i>	-0,075	-0,038	0,010	0,066	0,037
<i>Opposition core supporter</i>	-0,075	-0,038	0,010	0,066	0,037
<b>Repeated corruption cases</b>					
<i>Independent Voters</i>	-0,035	-0,047	0,003	0,048	0,031
<i>Incumbent core supporter</i>	-0,046	-0,034	0,009	0,048	0,022
<i>Opposition core supporter</i>	-0,039	-0,042	0,006	0,049	0,027

Notes: (1) Estimates generated by running post-estimation simulations of the significant coefficients from Table 5 using the Clarify routine in Stata as described by Tomz *et al.* (2000), setting each explanatory variable at its mean value. They indicate the difference in the predicted probability of voting as the corruption variable changes from zero to one; (2) Dependent variable: Perceptions of local political corruption: 5=Very High Corruption. 4=High. 3=Medium. 2=Low. 1=None; (3) Treated observations weighted as 1, and control observations weighted by the number of times they are matched to a treatment observation; (4) All estimations include contextual and individual level variables.

## 5.6. Validation of the Results

The ‘conditional independence’ or ‘unconfoundedness’ assumption is based on the presumption that the treatment satisfies some type of exogeneity (Rosenbaum and Rubin, 1983; Imbens and Wooldridge, 2008). As explained above, this requires turnout to be independent of corruption scandals. If this were the case, systematic differences in individual turnout between the treated and control municipalities, with the same individual and contextual traits, can be attributed to the treatment – corruption scandals. We check for the exogeneity of our treatment by testing that our results are not driven by either spurious correlations or an omitted trend that affects both the corruption cases and electoral turnout. Hence, we conduct two placebo tests to verify that levels of voter turnout are not explained by future corruption

Our first placebo test considers our general sample of observations at the municipal level, and verifies that corruption occurring after 1999 does not explain levels of turnout in that year:

$$\text{Turnout}_{99} = -0.005 \text{Corruption}_{>99} + 0.932 \text{Turnout}_{87-95} \quad (3)$$

*(0.007)**(0.038)*\*\*\*

where  $\text{Turnout}_{99}$  is the local electoral turnout in 1999 for the municipalities in our sample,  $\text{Corruption}_{>99}$  is a dummy variable equal to one if at least one corruption scandal broke out after 1999, and  $\text{Turnout}_{87-95}$  is the average level of electoral turnout between 1987 and 1995. Standard errors are in brackets and \*\*\* indicates a 1% level of significance. Thus, we find that corruption scandals had no significant effect on previous levels of turnout, confirming the assumption that there is no omitted variable bias.

Since the original sample was made up of 160 treatment municipalities, including those that experienced corruption after the local elections of 2007, there are 38 additional treatment municipalities that are not used in our analysis. These municipalities reported at least one corruption scandal between May 2007 and November 2009, when the survey was carried out, but not at any time before. Thus, we can also perform a placebo test with the corruption cases that were reported after the 2007 local elections. This placebo test follows the specification:

$$\text{Turnout}_{07} = 0.008 \text{Corruption}_{07-09} + 0.828 \text{Turnout}_{87-95} \quad (4)$$

*(0.012)**(0.044)*\*\*\*

where  $Turnout_{07}$  is the local electoral turnout in 2007 for the municipalities in our sample,  $Corruption_{07-09}$  is a dummy variable equal to one if at least one corruption scandal broke out after 2007, and  $Turnout_{87-95}$  is the average level of electoral turnout between 1987 and 1995, which was used to conduct our matching. Standard errors are in brackets and \*\*\* indicates a 1% level of significance. Our second placebo test confirms the previous results, turnout is affected by corruption that is revealed before the elections but not by corruption that is revealed after the elections. Hence, that verifies that the ‘conditional independence assumption’ holds.

## 6. Conclusions

This chapter has examined the effects of local corruption scandals on voter turnout and finds that corruption generates disaffection with the electoral system among the politically alienated. Consequently, some individuals abstain, withdrawing from the electoral process, thus helping corrupt incumbents retain office.

Drawing on data identifying cases of corruption at the local level in Spain between 1999 and 2007, and survey information on turnout at the individual level, we devise a balanced matched sample of corruption-ridden and corruption-free municipalities. Overall, our results support the hypothesis that the disaffection attributable to scandals predominates over the impact of such episodes on voter mobilization. On average, an episode of corruption in a municipality makes individuals 1.5% less likely to vote. This result, however, is lower than that reported by Chong *et al.* (2012), who found that exposing Mexican citizens to information on corruption reduces voter turnout by 3%.

The study’s main contribution is that we have been able to identify both individual partisan leanings and the timing of the scandals as being key determinants of the way in which potential voters react to corruption. We show, first, that scandals only affect the turnout of those citizens that do not manifest any strong political attachments. These independent voters are 4.4% less likely to vote if a corruption scandal becomes public. By contrast, those with strong partisan leanings (core supporters) do not react to cases of corruption, irrespective of whether they support the incumbent party or the opposition. Second, we show that, while neither old nor recent corruption scandals have an impact on the voting participation decisions of individuals,

repeated instances of corruption result in higher rates of abstention. Thus, for those municipalities that experienced at least one case of corruption in both terms of office analysed (1999-2003 and 2003-2007), individuals were 4.8% less likely to vote, a much higher probability than that found when all corruption scandals are considered together. Hence, persistent corruption causes feelings of disaffection to predominate over the mobilization factor, thus reducing voter turnout.

When considering the combined effect of these two determinants, we find that independent voters are even less likely to vote when faced by repeated cases of corruption. In this instance, the likelihood of voting falls by 6.3%. Old and recent corruption cases do not seem to have an impact on any group of individuals as neither the incumbent's nor the opposition's core supporters change their electoral participation decision if a scandal is revealed, irrespective of the timing of corruption analysed. Thus, our results show that, with the exception of recent scandals, cases of corruption only have an effect on independent voters, who may abstain as a result of their feelings of disaffection.

Our analysis of the corruption perceptions of individuals suggests that the incumbent's core supporters say they are unaware of such episodes. Their failure to report higher levels of corruption perception when a scandal is made public supports Anduiza *et al.*'s (2012) findings that citizens are more tolerant of an incumbent's malfeasance if they share the same ideology. The corruption perceptions of both the core supporters of opposition parties and independent voters are raised when a scandal is revealed; however, the former do not modify their electoral participation. We surmise that they continue to vote for the candidate of the party with which they share a close ideological affinity with the aim of defeating the party embroiled in the scandal.

Voter turnout is one of the key indicators of a political system's democratic health. We have found that local corruption scandals affect voter turnout by dissuading citizens from voting. These results allow us to reinterpret earlier conclusions reported in the literature that attribute the absence of any notable electoral punishment of corruption to cultural explanations. Considering the non-trivial effect reported here of scandals on voter turnout, we are able to confirm that some individuals react to corruption by withdrawing from elections. It is difficult to speculate as to what would happen if independent voters did not withdraw from the elections as a consequence of corruption. However, since a fall in turnout tends to have a more marked effect on

minority parties (Hansford and Gomez, 2010), it seems highly likely that the votes cast by disaffected citizens would make it much more difficult for corrupt politicians to retain power. Considering both the incumbent's vote loss and the fall in voter turnout, the actual impact of corruption on electoral outcomes may be much higher than is currently reported in the literature.

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## Appendix

Table A.1: Definition of the variables and Summary Statistics

Variable	Definition	Mean	St.Dev.	Min	Max
<i>Individual-level variables</i>					
<i>Turnout</i>	Dummy variable coded 1 if the individual voted in the 2007 local elections	0,775	0,418	0	1
<i>Income</i>	Self-reported socio-economic classification (1-5): 1: Low; 2: Medium-low; 3: Medium; 4: Medium-High; 5: High	3,357	1,308	1	5
<i>Schooling</i>	Highest level of education completed (1-5): 1: any studies; 2: primary; 3: secondary; 4: graduate	46,323	16,697	1	5
<i>Age</i>	Age in years	0,499	0,500	18	99
<i>Female</i>	Dummy variable coded 1 for females			0	1
<i>Divorced</i>	Dummy variable coded 1 for people who are divorced or separated	0,046	0,209	0	1
<i>Unemployed</i>	Dummy variable coded 1 for people who are unemployed	0,142	0,349	0	1
<i>Student</i>	Dummy variable coded 1 for students (do not work)	0,058	0,233	0	1
<i>Retired</i>	Dummy variable coded 1 for people who are retired	0,208	0,406	0	1
<i>Immigrant</i>	Dummy variable coded 1 for people who are not born in Spain	0,035	0,183	0	1
<i>Corruption Perceptions</i>	Self-reported perceptions of local political corruption (1-5): 1: None; 2: Low; 3: Medium; 4: High; 5: Very High	2,719	1,313	1	5
<i>Ideology</i>	Self-reported ideology (1-3): 1: Left; 2: Centre; 3: Right	1,831	0,711	1	3
<i>Independent</i>	Dummy variable coded 1 for people who do not always vote for the same party	0,512	0,500	0	1
<i>Incumbent core Supporter</i>	Dummy variable coded 1 for people who always vote for the same party, and their ideology is the same as the incumbent's	0,215	0,411	0	1
<i>Opposition core Supporter</i>	Dummy variable coded 1 for people who always vote for the same party, and their ideology is the same as the opposition's party	0,272	0,445	0	1
<i>Contextual-level variables</i>					
<i>Corruption</i>	Dummy variable coded 1 for municipalities with at least one corruption scandal in the period 1999-2007	0,482	0,500	0	1
<i>Past corruption cases</i>	Dummy variable coded 1 for municipalities with at least one corruption scandal in the period 1999-2003, but were not corruption has broke out afterwards	0,110	0,313	0	1
<i>Recent corruption cases</i>	Dummy variable coded 1 for municipalities with at least one corruption scandal in the period 2003-2007, but were not corruption has broke out before	0,188	0,390	0	1
<i>Repeated corruption cases</i>	Dummy variable coded 1 for municipalities with at corruption scandal in both periods: 1999-2003 and 2007-2009.	0,185	0,388	0	1
<i>Voter turnout</i>	Average voter turnout at the 1987, 1991 and 1995 local elections	0,687	0,084	0,508	0,922
<i>Income p.c.</i>	Average socio-economic condition. Arithmetic average of the socio-economic condition according to their employment status	0,951	0,118	0,610	1,200
<i>Divorced</i>	Percentage of divorced and separated among all population	0,029	0,012	0,002	0,074

Table A.1: Definition of the variables and Summary Statistics (cont.)

Variable	Definition	Mean	St.Dev.	Min	Max
<i>Individual-level variables</i>					
<i>Graduate</i>	Percentage of population with third level studies (diploma, degree and doctorate) among population 16 years and older	0,128	0,069	0,016	0,434
<i>Unemployment</i>	Percentage of unemployed among individuals aged 20-59	0,157	0,079	0,048	0,675
<i>Ethnic diversity</i>	1 - $\sum_k(\text{Pop}_k/\text{Population})^2$ where $\text{Pop}_k$ is population whose nationality is from continent k, and k refers to Europe, Africa, America and others	0,058	0,058	0	0,279
<i>Right voters</i>	Average historical vote share that the right wing parties obtained in 1979, 1982, 1986 and 1989 local elections	0,226	0,093	0,037	0,483
$\log(\text{Population})$	Log of the registered population	10,545	1,778	6,973	14,957

Notes: (1) Source of the individual-level variables: own-designed survey (see Box A.1); (2) The contextual-level variables: (i) 2001 Census of Population (National Institute of www.ine.es), for Income p.c., % Divorced, % Graduate, % Unemployed, population by continent used to construct the Ethnic diversity index, and Population. (ii) Database on corruption scandals, constructed from an initial list of scandals compiled by Fundación Alternativas and own Internet searches (see section 3 for more details); (iii) Voting data from the Ministry of the Interior, used for the construction of the % Right voters and % Vote turnout variables.

Table A.2: Differences in means between Treated and Control groups

	Mean		t-test
	Treated	Control	[p-value]
<i>Unmatched sample</i>			
<i>% Vote turnout</i>	0.541	0.654	4.25 [0.000]
<i>Income p.c.</i>	0.947	0.939	1.09 [0.282]
<i>% Divorced</i>	0.026	0.018	14.09 [0.000]
<i>% Graduate</i>	0.106	0.077	12.57 [0.000]
<i>% Unemployment</i>	0.147	0.143	0.88 [0.381]
<i>Ethnic diversity</i>	0.060	0.035	10.83 [0.002]
<i>% Right voters</i>	0.507	0.505	0.36 [0.724]
$\log(\text{Population})$	9.610	8.182	27.31 [0.003]
<i>Matched sample</i>			
<i>% Vote turnout</i>	0.708	0.692	-1.28 [0.202]
<i>Income p.c.</i>	0.947	0.934	-0.79 [0.428]
<i>% Divorced</i>	0.026	0.026	0.03 [0.976]
<i>% Graduate</i>	0.114	0.104	-1.09 [0.278]
<i>% Unemployment</i>	0.151	0.166	1.23 [0.220]
<i>Ethnic diversity</i>	0.053	0.054	0.08 [0.932]
<i>% Right voters</i>	0.219	0.218	-0.12 [0.908]
$\log(\text{Population})$	9.788	9.678	-0.51 [0.610]
Observations	122	97	

Note: (1) Treated group = municipalities where at least one corruption scandal broke out during the period 1999-2007; Control group=municipalities where no corruption scandal broke out during the same period.

Table A.3.: Differences in means (survey observations)

	Mean		t-test
	Treated	Control	[p-value]
<i>Turnout</i>	0.833	0.846	-1.01 [0.220]
<i>Income</i>	2.702	2.721	0.02 [0.479]
<i>Schooling</i>	3.184	3.159	0.03 [0.700]
<i>Age</i>	47.968	47.243	0.72 [0.260]
<i>Female</i>	0.522	0.504	0.02 [0.225]
<i>Divorced</i>	0.044	0.039	0.00 [0.424]
<i>Unemployed</i>	0.130	0.140	-0.01 [0.327]
<i>Students</i>	0.045	0.052	-0.01 [0.222]
<i>Retired</i>	0.241	0.226	0.01 [0.283]
<i>Immigrants</i>	0.039	0.031	0.01 [0.168]
<i>Ideology</i>	1.841	1.817	0.02 [0.324]
<i>Independent</i>	0.510	0.520	-0.01 [0.463]
<i>Incumbent core Supporter</i>	0.224	0.203	1.28 [0.200]
<i>Opposition core Supporter</i>	0.265	0.275	-0.01 [0.507]
<i>Interviewees per municipality</i>	34.779	38.016	-1.18 [0.241]
Number of municipalities	122	97	

Note: (1) Treated group = municipalities where at least one corruption scandal broke out during the period 1999-2007; Control group=municipalities where no corruption scandal broke out during the same period.

## Box A.1: Description of the survey

The survey was conducted by “Treball de Camp”, a firm specialising in the design and implementation of surveys. The interviews were conducted by telephone between December 2009 and February 2010. Due to budget constraints, it was not possible to include all the municipalities in which at least one corruption scandal had been reported during the period 1999-2009 and their matched pair. Thus, a representative sample of municipalities was selected, composed of 160 corrupt and 131 non-corrupt municipalities. The sample is representative with regard to three specific dimensions: i) the timing of the corruption scandal; ii) municipality size (in terms of population); iii) and geographical location of the municipalities (by province). The number of individuals interviewed varied according to municipality size: 20 individuals were interviewed in municipalities with fewer than 10,000 inhabitants; 40 if  $10.000 < \text{Population} \leq 100.000$ ; 50 if  $100.000 < \text{Population} \leq 500.000$ ; and 100 if  $\text{Population} > 500.000$ . The final sample included 9060 interviews. The sample was also representative in terms of individual characteristics (gender and age) for the whole Spanish population and by municipality size.

To guarantee a high response rate, the survey was designed to be completed in five minutes. To avoid any conditioning of responses the answer, the survey was organized as follows: First, a set of basic filter questions (gender, age, nationality and municipality in which the individual is registered) were used to obtain a representative sample; second, the question regarding trust was asked; third, a bloc of questions concerning voting decisions and information about the individual were asked; finally, several sociodemographic characteristics were ascertained.



## Chapter 4

### Press Coverage of Political Scandals: Slant and Capture

#### 1. Introduction

Media outlets are the channels through which citizens become informed about several political issues. In the case of corruption scandals, news information is even more crucial, since corrupt governments have no interest in informing the electorate about their illicit activities. In those situations we would expect media outlets to act as a watchdog, providing an oversight of politicians' behaviour. Such a function would require an objective and impartial coverage of corruption scandals, regardless of the government or political party involved; failure to provide unbiased information will affect the electoral accountability of corrupt politicians, calling into question the media's public function role.

Several factors may induce media outlets to deviate from an impartial coverage of corruption scandals. The economic literature has pointed to the ideology of media outlets, both editorial lines and readers' ideology, as an important driver of media bias (Anderson and McLaren, 2012). This would be the case where ideological slant makes some media outlets more likely to endorse politicians who support their ideology. For example, Puglisi and Snyder (2011) find that ideological preferences reflected in the editorials of US newspapers are highly correlated with partisan biases in the coverage of scandals. Some authors have also highlighted the role played by reader preferences, finding that the ideological position of the audience is the main explanation factor of media slant in the US (i.e., Gentzkow and Shapiro, 2010; Puglisi and Snyder, 2014).

The ideological slant of media outlets may not be the only political factor affecting the coverage of scandals. The fact that news influences public



opinion may be an incentive for politicians to try to capture media outlets in order to control the information that they publish (Besley and Prat, 2006). Thus, potential media capture is a fundamental factor to consider when analysing media bias. For example, Di Tella and Franceschelli (2011) find that government advertisement implies a decrease in the media coverage of corruption scandals. However, in an analysis of the US in the early twentieth century, Gentzkow *et al.* (2014) find that incumbent parties exerted, at most, a limited influence on the entry, exit, circulation, or content of like-minded newspapers.

In this chapter, we consider the factors of ideological slant and capture to explain media bias in the coverage of local corruption cases. First, we analyse whether the coverage of scandals affecting different political parties depends on a newspaper's ideology and/or the partisanship of its readers. Second, we consider whether coverage is affected by media capture; that is, whether the report of local corruption cases is different if the political party involved in the scandal also controls higher levels of government. Finally, we also consider whether these two effects are independent or complementary; i.e., whether capture is more likely if media outlets are ideologically biased.

Regarding ideological slant, the literature that tries to distinguish between the effect of media outlet ideologies and readers' partisanship has mainly focused on the US media market (i.e., Gentzkow and Shapiro, 2010; Puglisi and Snyder, 2011; or Puglisi and Snyder, 2014). We use data on the media coverage of Spanish local corruption cases to provide new empirical evidence of how these two forces affect ideological bias in a context with different traits to those of the US media market. All the cases we study concern land use regulations, the main source of local scandals in Spain in the years analysed. This corruption typology has the additional advantage that Spanish local governments are in charge of the land use planning, thus it is easier for voters to assign responsibilities for corruption once a scandal of this nature has been revealed.

The specific context we study provides us with an additional advantage when analysing the impact of media capture on coverage of corruption scandals. Competition in the media market is a crucial factor in the capacity of the politically powerful to capture media outlets. A higher degree of competition in the media market will reduce the bias in coverage of scandals (Gentzkow *et al.*, 2006, and Gentzkow and Shapiro, 2006), increasing state ownership of media the possibilities of capture (Besley and Prat, 2006). Also, less dependence on public funding helps media outlets to be more politically

independent (Petrova, 2011). In our case, the Spanish media sector has a high degree of concentration among politicised media outlets and a low level of newspaper circulation. The capacity that media outlets have to bias ideologically their news is higher in markets with few media sources. Moreover, regional governments might influence media outlets' funding through different mechanisms such as institutional advertising or public newspapers' purchasing. Hence, they may try to influence the coverage of corruption cases that affect their party by indirectly controlling the financial revenues of media outlets. This context is the perfect setting in which to test our hypothesis regarding media capture, since we will be able to analyse the effect of ideological alignment between the mayor involved in the scandal and the party in office at the regional level.

Our study makes several contributions to the literature on the media coverage of political scandals. First of all, we are the first to consider slant and capture at the same time. Thus far, the literature has considered ideological slant and capture as two independent driving factors of media bias in the coverage of corruption scandals. In their analysis of media bias based on the partisan language of US newspapers, Gentzkow and Shapiro (2010) control for the party of the incumbent governor or congressional representative, finding that neither of these factors explains a large share of the variation in bias. However, they use the incumbents' political party as an alternative explanation of media slant, based on the hypothesis that politicians' ideologies are correlated with readers' ideologies. Also, Gentzkow and Shapiro (2010) do not consider the specific coverage of scandals but the frequency in which some specific words appear in news information. Their approach tries to control more effectively for factors that may drive reader partisanship rather than to identify the effect of government capture of media. Second, in the analysis of bias in the coverage of corruption scandals, our study makes the additional contribution of testing whether ideological slant and capture are independent or complementary effects. Specifically, we consider whether media capture is more likely to happen if media outlets present an ideological slant.

To conduct our analysis, we account for more than 5,500 news articles published in Spanish newspapers. The timeframe of our study spans from the general elections of March 2004 to the local and regional elections of May 2007, a period characterised by a massive number of corruption cases unveiled by media. Our database accounts for 165 local corruption scandals affecting 93 municipalities, reported by 36 national and regional newspapers. We have

considered the party of the incumbent involved in each scandal identified. Then, we have collected information on the ideological slant of all the newspapers analysed. In order to account for the demand-side factors that may explain media bias, we rely on survey data on the average ideological position of each newspaper's readers. We use all that data to examine whether the coverage of local political scandals by newspapers is biased in favour of: (i) mayors belonging to parties ideologically aligned with the newspaper – either its editorial position or the partisanship of their readers – and (ii) mayors belonging to parties controlling higher levels of government. We also consider how ideological slant and media capture may differ depending on the popularity of the government involved in the scandal.

Our results show that ideological slant makes media outlets reduce their coverage of the corruption scandal. Newspapers ideologically aligned with local parties involved in corruption will publish almost half of the news on those scandals than unaligned newspapers. Unlike previous results (Gentzkow and Shapiro, 2010; Puglisi and Snyder, 2011), we do not find evidence that readers' ideology drives media slant in Spain. That effect on the reduction of the news about the scandal is even higher when capture exerted by the government is taken into consideration. Media outlets will dedicate 52% less coverage to those scandals where the mayor's party involved in the corruption case is the same as the party of the president at the regional level. Hence, contrary to the findings of Gentzkow *et al.* (2014), we find evidence that incumbent regional governments influence the press. Also, from our results it seems that when analysing media bias on the coverage of corruption scandals, the effect of the capture exerted by the government prevails over the newspapers' ideological slant.

The rest of the chapter is organised as follows. The next section analyses how ideological bias and capture affect media coverage, drawing on the hypothesis to test. Section 3 presents the basic background of the Spanish media market and the typology of the corruption cases considered. Section 4 defines the design of our database. Section 5 discusses the estimation strategy and section 6 presents the results. Finally, section 7 concludes and discusses the open research questions regarding our results.

## 2. Ideological Slant of Newspapers and Media Capture

Ideally, media outlets should play a watchdog role, fighting for the public interest by offering a political oversight of the behaviour of governments and politicians. Such a role requires the spending of time and resources to reveal corruption cases, providing citizens with a neutral and balanced coverage of scandals. However, this ideal role seems far from reality.

As economic agents, media outlets follow a profit-maximisation strategy, deciding the total coverage to be devoted to scandals (see Strömberg, 2004a; Bernhardt *et al.*, 2006; Besley and Prat, 2006). It is naïve to expect editors and journalists to just pursue an oversight role of the behaviour of political actors, without considering the impact of such strategy on a firm's profits. If citizens are highly interested in corruption, newspapers may respond to reader preferences by revealing more cases, or by giving these cases higher visibility. Extensive coverage of corruption scandals might be used to raise revenues (Thompson, 2013). However, media outlets might also have political motives in addition to their profit-maximisation motives. Political factors that may influence media to bias the coverage of scandals are the main focus of this study. We consider the ideological slant of newspapers and the government's capture of media as two key factors in our analysis of media coverage of political scandals. We also analyse the effect on media bias of electoral competition. In this section we define the political elements involved and articulate the hypothesis upon which our empirical analysis is built.

### 2.1. Ideological Slant

The ideological bias of media outlets can be explained by supply-side or demand-side factors. The theoretical analysis of media markets considers the supply-side approach when bias is explained by media outlet preferences. Such preferences may influence the number of issues included in or excluded from the newspaper, as well as the treatment given to each piece of news. When the demand side is considered, media bias relies on different factors rather than the media outlet's ideology.

The 'supply side approach' postulates that bias in the coverage of scandals may reveal the ideological preferences of media outlets. Media outlets with an ideological inclination or political agenda would be willing to distort the number of articles or content of their news if it implies the advancement of their ideological goals (Prat and Strömberg, 2011). Different mechanisms

behind media outlets' idiosyncratic preferences for slanted information have been identified in the literature. Anderson and McLaren (2012) describe a setting wherein bias arises from the political agenda of media owners. This is the case where media owners want to have an influence on political outcomes, using their published information to support specific candidates or policies. In the Anderson and McLaren model, media outlets have the power to influence public opinion by withholding specific information that does not respond to the goals of their political agenda. In addition to their newspaper's profit-maximisation strategy, media proprietors might also be the owners of another business with some specific interests. Baron (2006) also considers the situation where media bias might originate from journalists' career interests. Thus, journalists will be willing to bias some stories if that bias would increase their visibility and recognition.

Media outlets could also report biased coverage of scandals as a consequence of slanted information acquisition. Editors or journalists with specific ideological preferences could be gathering information in a biased way, requiring less evidences of corruption to incriminate a politician who belongs to a different ideological party (Sobbrio, 2012). However, owners and journalist may not be the only supply-driven force shaping media bias. The role played by advertisers or political lobbies has also been analysed in the literature. Ellman and Germano (2009) consider a 'commercial media bias', where media outlets do not publish on some issues that may bother their advertiser's companies. Lobbies may also try to influence news contents to support their favourite policies or candidates (Sobbrio, 2011), either by providing specific information to media outlets (Baron, 2005) or by offering them direct payments (Petrova, 2012).

Recent empirical studies suggest that newspapers are more likely to endorse political parties that share their ideology, at least in the US news market. For example, Ansolabehere *et al.* (2006) find that U.S. newspapers endorse Republican candidates in the 1940s and 1950s, while by the 1990s, they endorse Democrats. Ho and Quinn (2008) find that around half of the US newspapers exhibit centrist positions between 1994 and 2004. Groseclose and Milyo (2005) estimate a strong liberal bias among media outlets, which seem to be located to the left of the US Congress. Gentzkow and Shapiro's (2010) study also confirms that US newspapers exhibit a systematic ideological bias. Puglisi and Snyder (2011) show that US media outlets that endorse a specific party are less likely to publish on scandals that involve politicians from that

party. Puglisi (2011) also suggests that media outlet editors aim to influence election outcomes depending on their ideology when they cover US presidential campaigns. Finally, Larcinese *et al.* (2011) find that pro-Democratic media outlets publish more news on negative economic outcomes if the president is a Republican.

Media bias could also have a ‘demand-side explanation’. If citizens do not value the accuracy of the information provided by media, they have a cognitive bias to be informed by a like-minded source (Mullainathan and Shleifer, 2005). In such cases, media outlets have an incentive to alter information to cater to particular audiences. Biased coverage of corruption, depending on the political party involved in the scandal, can be a strategy to increase newspaper sales among their ideologically biased readers (Gentzkow and Shapiro, 2006). In their study, Puglisi and Snyder (2011) hold that demand-side aspects are relevant when considering local corruption cases, particularly when the politician involved in the scandal is from the same congressional district or state where the newspaper is distributed. Matching newspaper ideology with citizen ideology in a specific area (based on the number of donations to the Republican or Democratic parties), Gentzkow and Shapiro (2010) find that media bias in the US is mainly explained by the ideological position of the media outlet’s audience. However, Puglisi and Snyder (2014) find that US newspapers are ideologically located almost exactly at the median voter in the states in which they report. Thus, the empirical evidence seems to suggest that the demand for ideologically slanted news plays a key role in explaining the slant of news media, at least in the US market of news.

If we consider supply-side and demand-side explanations of media bias together when analysing corruption scandals, we expect that media outlets ideologically aligned with a political party will provide information which benefits that party as a means of attracting like-minded readers. Taking into account that local scandals negatively affect the incumbent involved, the two hypotheses that we will test are:

*H1.a: Considering supply-side factors, newspapers will be biased if they give less extensive coverage to corruption if their editorial’s ideology is the same as that of the local incumbent involved in the scandal.*

*H1.b: Considering demand-side factor, newspapers will be biased if they give less extensive coverage to corruption if their readers' ideology is the same as that of the local incumbent involved in the scandal.*

## **2.2. Media Capture**

News published by media affects the information to which voters have access and, in turn, can affect their voting decisions. The accountability function played by media may incite politicians to control the information revealed and to capture media outlets. In this analysis, the capture of media by the government will be an additional potential source of bias in the coverage of corruption scandals.

Following Besley and Prat's (2006) model, we consider that, besides commercial profits, media outlets may obtain earnings from collusion with governments. If incumbent politicians have the power to influence media outlet revenues, they may also influence the information that is published. Revenues derived from the capture of media outlets take different forms. The most evident channel is monetary payment to media outlets to manipulate the information that is published. McMillan and Zoido (2004) study the extensive bribing system that was created in Peru under Fujimori's presidency in order to capture legislators, judges and media companies. Their results reveal that media was the most expensive and least effective actor to capture.

Even if the law prohibits media bribes, incumbent governments may find alternative ways to influence news content such as media ownership. State ownership of media may also further complicate the political independence of media outlets. In a cross-country study, Djankov *et al.* (2003) analyse the effects of media ownership. They find that greater state ownership of media is related to less press freedom and citizens' political rights, as well as lower governance quality. Besley and Prat (2006) also note a significant relationship between state ownership and corruption. However, media capture can even take more indirect forms than state ownership. Governments may use regulations to benefit some specific media outlets. Politically independent regulatory bodies are present in several countries, such as the Federal Communication Commission in the US. These agencies generally deal with antitrust policies to control, for example, media merges. However, sometimes their actions are non-based on objective basis analysis, which may advantage some media outlets regardless of the consequences to consumers' welfare

(Besley and Prat, 2006). Governments can also buy favours for the owners of the media companies, for example, by offering to friendly outlets a preferential access to news (Prat and Stromberg, 2011). Finally, institutional advertisements may be an alternative tool for politicians or incumbent governments to try to influence media outlets. As mentioned, Di Tella and Franceschelli's (2011) study of Argentinean government corruption finds that an increase in one standard deviation in government advertisement implies a decrease in the media coverage of corruption scandals by almost half a front page per month.

Historical data offer the opportunity to analyse how governments have been able to capture media outlets depending on the characteristics of the media market. Hamilton (2004) studies the increase in the number of US newspapers that were not influenced by the government between the end of the nineteenth century and the beginning of the twentieth century. He considers that the possibility of economic viability through commercial revenues helped media outlets to become independent of the incumbent politician's interests. Gentzkow *et al.* (2006) also find that technological changes in the news industry have enlarged the optimal scale of newspapers, increasing the competence levels of the US media market and the presence of more independent newspapers. Similarly, Petrova (2011) shows that such a context results in higher advertising revenues for media outlets and greater possibility of independence from political parties. These studies prove that the possibility for media outlets to be economically viable has increased with the emergence of politically independent newspapers in the US. Competition in the media market and the reduction of direct means of public patronage among newspapers has lessened the ability of incumbents to influence news content. These findings are consistent with those of Besley and Prat (2006), who posit that competition in the media market is beneficial, since it is harder for the government to capture media outlets.

Some studies have considered the effect of the incumbents on the partisan composition of the US media market, not finding a strong relationship with the ideology of the parties in office. As indicated, Gentzkow and Shapiro (2010) do not find a correlation between the party affiliation of local officials, the share of representatives in the US House of Representatives and the political slant of newspapers in 2005. Using data from 1869 to 1928, Gentzkow *et al.* (2014) find evidence of the limited influence of the party on the partisan composition of the US press. The media market they analysed was



highly competitive, and all newspapers were privately owned, demonstrating that the specific characteristics of the media market play a crucial role determining governments' ability to capture media outlets.

The Spanish context provides a new setting to test the influence of media capture on the coverage of corruption scandals.<sup>47</sup> The media financing model in Spain has changed in recent years. The government may provide direct aid to media outlets or give them a privileged tax treatment, for example, through a beneficial treatment in some specific taxes (De La Sierra and Mantini, 2011). Since the early 2000s, regional governments mainly assign these benefits to media outlets (Morales, 2006). The national government does not provide budget allocations to media outlets or informative agencies. Hence, Autonomous Communities – the regional governments in Spain, which accounts for 17 regions – have adopted the media oversight role, also assigning public subsidies or project grant to media outlets (Fernández, 2013). Including in our analysis the alignment between the political party involved in the scandal and the regional government's ideology allows us to examine whether the coverage of local political scandals by Spanish newspapers is biased in favour of mayors belonging to parties controlling higher levels of government. Spanish regional governments may indirectly control some of the media outlets' funding. Thus, they might have an influence over the amount of news devoted to corruption scandals. That would not be the case of local governments, since mayors may not have enough influence to try to control the news' content of national or regional newspapers.

Specifically, in analysing the impact of media capture on the coverage of political scandals we must remember that newspapers may assign to each corruption case a different degree of importance in terms of coverage, which will, to some extent, influence readers' perceptions about which scandals are the most relevant (Larcinese, *et al.*, 2011). In our case, the capture effect would be the disappearance of or reduction in the coverage of the negative story for the party in office at the regional level, i.e., the amount of news devoted to corruption (Anderson and McLaren, 2012). Hence, the hypothesis of media capture that we will test is:

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<sup>47</sup> More information on the specific traits of the Spanish media market is provided in Section 3.2.

*H2: Newspapers will be captured if they give less extensive coverage to corruption scandals affecting mayors that involve the regional government's party in office.*

### **2.3. Ideological Slant and Media Capture**

So far, we have put forward a framework in which two hypotheses are set out: first, media outlets are considered to be ideologically biased if they give less extensive coverage to 'supporting' parties' scandals. Additionally, media is captured if newspapers do not report on or give different treatment to cases involving the party in office in the regional government. However, these two effects could be complementary rather than independent drivers of media bias in the coverage of corruption scandals.

Newspaper sales and, by extension, media outlet benefits will increase based on their reputation and readers' opinions on the quality of news. Thus, editors will not want to put their reputation at risk (Anderson and McLaren, 2012). Consider a case in which a newspaper with an opposite ideology from the government gives less coverage to a corruption case involving the party in office. Citizens could interpret the scandal's limited coverage as a sign that the newspaper has been captured, which may imply an important reputational cost and, as a consequence, a decrease in the number of readers (Gentzkow and Shapiro, 2006). Governments may try to influence media to reduce the number of news published on the scandals. However, that pressure may be more difficult to exert on unaligned newspapers. These media outlets will risk losing commercial revenues due to the reputational cost, which may not be compensated by the government's alternative payoff. Hence, in situations in which the newspaper's ideology differs significantly from the party involved in the scandal, politicians may have additional difficulties to influence the media. Conversely, it will be easier for newspapers that are ideologically aligned with the political party involved in the scandal to accept the government's 'bribe'. If they are predisposed to manipulate scandal coverage in favour of the incumbent in office, government capture could foster the existing media ideological slant. Considering the ideological slant of media outlets and media capture together, our last hypothesis to test is:

*H3: Media capture will be more likely to happen when newspapers are ideologically aligned with the party of the mayor involved in the scandal.*

## **2.4. Electoral Competition**

In order to understand completely the political incentives that media outlets have to bias the coverage of local corruption cases, we must recall the a priori considerable potential impact of scandals on elections. As it has been mentioned in Chapter 2, the vast majority of studies that try to measure the efficiency of elections as an accountability tool have just found a modest effect of corruption on the candidate's vote share. For example, Ferraz and Finan's (2008) study shows that the probability of re-election of Brazilian mayors involved in random federal audits fell by a 10%. Chong *et al.* (2012) find that information on corruption does not significantly affect a Mexican incumbent's vote share. For Spain, Chapter 2 suggests that the mean vote loss after a corruption scandal is around 4%. These moderate impacts of corruption on vote shares imply that the risk of losing the mayoralty is just faced by incumbents who win the elections by a small margin. Consequently, the electoral power assigned to corruption news would be higher in those situations where the incumbent party wins by a narrow electoral margin. This will make information on politicians' dishonest behaviour more critical for those local governments that face a high electoral competition. Also, Solé-Ollé and Viladecans-Marsal (2012) show that in Spain lower political competition increases the amount of new land designated for development, interpreting this result as an indicator of the urban developers' influence. That would suggest that thinner electoral margins of victory might imply fewer incentives for corruption.

Analysing the media coverage of scandals affecting British members of Parliament (MPs), Latham (2012) finds that newspapers publish more news on the corruption of unpopular governments. He also observes that this effect is smaller for newspapers that share the ideology with the government in office. In fact, Latham shows that when the Labour party (left-wing) was in power right wing media outlets' coverage was twice as sensitive to changes in the government's popularity. Furthermore, the popularity effect was absent for left-wing newspapers. We test how the effect of the popularity of the local government in the coverage of scandals depends on ideological alignment between the media outlet and the corrupt mayor. Following demand-side bias explanations, we argue that if readers want to know about the negative stories of politicians they already dislike, media outlets should report more on unpopular governments (Mullainathan and Shleifer, 2005). However, ideologically aligned newspapers may not want to attack preferred candidates,

even if he/she holds a lower level of electoral popularity. In fact, aligned newspapers could even publish a lower number of negative news stories if the local government does not hold a high degree of popularity. If the local incumbent does not have a high level of popularity, unaligned media outlets may expand their coverage of scandals. Readers – with an ideology opposed to that of the party in power – will like news that attacks the candidate they do not prefer. Hence, aligned newspapers could respond to the opposition newspaper’s strategy with a supporting campaign for its candidate. Besides, core incumbent supporters will be loyal to their party, not having an interest in receiving more information on scandals. In those situations, ideological slant may be even greater without increasing the reputational cost for the media outlets.

Thus, the hypothesis to test is:

*H4.a: Newspapers’ ideological slant will be stronger the higher the degree of electoral competition since newspapers face a lower reputational cost.*

Considering the potential impact of scandals on elections, regional governments will have incentives to capture media outlets in those municipalities where the party of the regional president does not hold the mayoralty or has won by a thin electoral margin. This would help regional governments to keep the larger number of local councils under their control. In fact, regional incumbents may not even care about the electoral effects of corruption coverage in those municipalities that are not at risk of losing elections. However, the electoral punishment of corrupt mayors may also have direct spillover effects on regional elections. This is especially important in Spain, since several regions hold local and regional elections on the same day. Hence, voters upset by local scandals may transfer their anger to the corrupt party both at the local and regional level. In such cases, regional governments will have incentives to reduce the number of news stories on local scandals irrespective of their electoral margin in local elections.

Several studies have verified that alignment condition between local and higher-layer governments is a strong incentive for preferential treatment towards some specific local council. This favouritism has been identified in the allocation of intergovernmental transfers. For example, for the US, Grossman (1994), Larcinese *et al.* (2006) and Burden and Howell (2010) show that those states and districts that are aligned with the federal government receive a

higher level of funding. For Spain, there is also evidence that partisan favouritism in the allocation of intergovernmental transfers is lower the more higher-layer elections are contested (Curto *et al.*, 2013). In our case, regional governments may try to protect mayors from their same ideology and attack opposition local parties, by capturing those media outlets that could publish harmful news on local governments' scandals. For this reason, we will predict that media capture will be more likely to happen in those situations where the regional government involved in the scandal does not achieve large electoral margin of victory.

*H4.b: Media capture will be stronger in close elections since regional governments will try to avoid the electoral impact of corruption information on their local councils.*

### **3. Background on the Spanish Case**

#### **3.1. Corruption Scandals and Local Politics**

Spain has become a very prolific case study for researchers on the causes and consequences of local corruption cases (e.g., Rivero and Fernandez-Vazquez, 2011; 2012; Fernández-Vázquez, *et al.*, 2014). Spain has not traditionally suffered from an endemic problem of local corruption cases – in fact not many local scandals are identified during the first two decades after the transition to democracy (1979–1999) (see Jiménez and Caínzos, 2006). However, the boom in the Spanish housing market led to a change in that situation during the late 1990s, with a peak in the number of corruption cases around the 2007 local elections.<sup>48</sup>

The main source of Spanish local corruption scandals which emerging in that period was related to public management of land use and construction permits. The vast majority of cases involved local incumbents receiving bribes in return for land use changes. This was motivated by the specific traits of the Spanish land use sector. City councils and local incumbents have a high degree of independency regarding land use regulations. The plan defining the municipality's uses of land is designed and approved by the city council, as well as its amendments. They act in an autonomous way, having a particularly great statutory discretion in dealing with the urban planning. These include

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<sup>48</sup> A more detailed description of the corruptions scandals included in our analysis is explained in the following section.

amendments of the land use classification and public procurement processes. Thus, local incumbents are in charge of assigning the use of each area (residential, commercial, industrial), setting the maximum floor-to-area ratios or designating some areas as green zones or public facilities, among others (Fundación Alternativas, 2007).

Several factors increased the incentives for corruption in the land use sector. First, the Spanish property bubble was indicative in those years of an enormous rise in the real estate prices that generated important incentives to enlarge the areas suitable for building, the so-called ‘urban land’. Also, the vulnerability to corruption was accentuated by the weak oversight role of the regional governments, known in Spain as Autonomous Communities. Spanish regional governments simply applied a limited control over the local incumbents’ actions regarding the use of the land, having in some cases to appeal to courts to revoke local governments’ decisions.<sup>49</sup>

### 3.2. The Spanish Media Market

The aforementioned wave of Spanish local corruption cases starting in the first years of the 2000s was characterised by the key role played by newspapers in unveiling scandals. This reflects the important position of Spanish newspapers as agenda-setters, where media holders also own alternative platforms (i.e., television channels) that they use to intensify the impact of their news. It also revealed an increasing polarisation in the media reporting of electoral campaigns. Well known is the intense coverage that newspapers such as *El País* (a clear supporter of the left-wing Spanish Socialist Workers Party (PSOE)) or *El Mundo* (a clear supporter of the right-wing Popular Party (PP)) realised during the 2007 local elections, with constant news on corruption scandals involving political parties.

The Spanish media market has been defined as a ‘polarized pluralist model’ (Hallin and Mancini, 2004), where political agents have strong connections with media. This pluralist and polarised mass media system – common for Mediterranean countries – is also characterised by a low level of newspaper circulation. In fact, there are around 100 periodical publications in Spain, but few of them have a circulation topping 100,000. For example, in 2008, just eight newspapers exceeded sales of 100,000 copies sold per issue and they

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<sup>49</sup> *European Commission*, Anti-Corruption report (2014). Spanish country chapter.

accounted for more than half of the overall circulation of newspapers.<sup>50</sup> Spain also holds one of the lowest newspapers' reading rates in Europe, having just the 50.8% of the population the newspaper reading as a daily habit.<sup>51</sup>

One particularity of the press sector in Spain, unlike television or radio, is that it has not been subjected to any regulation to limit ownership concentration. Spanish legislation does not fix any limit on ownership of newspapers, and companies are permitted to hold assets across different media sectors (Llorens, 2010). Thus, Spanish newspapers exhibit a high degree of ownership concentration among editorial groups, accumulating for a few of them a high number of newspapers titles (Jones, 2007). For example, the combined market share of the two most important groups, *Vocento* and *Grupo Prisa*, is approximately 40<sup>52</sup> per cent of overall newspaper circulation. Spanish media groups have also been characterised by a clear ideology of their editorial lines (Castromil, 2012). Regarding the previous mentioned groups, *Vocento* titles exhibit an evident support of the right-wing PP, while *Grupo Prisa*, and its main newspaper title, *El País*, is a clear supporter of the left-wing PSOE.

Hallin and Mancini (2004) also identify political clientelism as a common trait of Southern Europe's media systems. The financing model of media has deeply changed in recent years. During the 1980s the government used a press subsidy system, which is not in place anymore. Since early 2000s almost all the public funds to media outlets – not as direct subsidies if not in the form, for example, of language protection grants<sup>53</sup> – have been contributed by regional governments. In this sense, the national government does not assign any budget allocation to media outlets or informative agencies. Nevertheless, public advertisement and regulation measures have constituted a relevant form of informal press subsidy, often used by the Spanish regional government as a way of exerting political pressure (Hallin and Mancini, 2004). This is especially relevant considering the important fall in revenues that Spanish media outlets have experienced in the last years as a consequence of the economic crisis and

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<sup>50</sup> Data from the *Oficina de Justificación de la Difusión (OJD)* – the Spanish Audit Bureau of Circulation – which monitored a total number of 92 Spanish newspapers in that year.

<sup>51</sup> The average percentage of population that daily read newspapers in Europe in 2005 was 76.5%. The Spanish low values are just overcome by Greece, with a 33.7% of population daily reading newspapers (see Elvestad and Blekesaune, 2008).

<sup>52</sup> Data from the *Oficina de Justificación de la Difusión (OJD)* – 2008.

<sup>53</sup> Some of these public subsidies are assigned in Spain for linguistic reasons, with regions with co-official languages (i.e., Catalonia, Valencia, Balearic Islands, Galicia and the Basque Country) being the beneficiaries.

the appearance of on-line and free newspapers. The decrease in the number of newspaper issues sold and the private advertisement revenues makes it possible for regional governments to exert higher influence on capturing media outlets for their own benefit.

## **4. Data**

### **4.1. Data on Corruption Scandals' News**

With the objective to study the existence of a bias in the media coverage of political scandals, we rely on a database that includes information on a representative sample of local corruption cases in Spain. From these cases we have collected all pieces of news published in Spanish newspapers through automatic keyword-based searches. The database's construction and the definition of the different variables used in the empirical analysis are defined in this section.<sup>54</sup>

The municipalities included in our database have experienced at least a corruption scandal, defined as any 'public allegation of corruption brought to light by a newspaper'.<sup>55</sup> The main source of our data is a study that the 'Fundación Alternativas', a Spanish think-tank, made to record all corruption scandals reported in Spanish newspapers between 2000 and 2007. We complemented this list of corruption cases with an internet-guided search of scandals occurring during the local elections of July 1999 (see Chapter 2 for a detailed description of the construction of the corruption database). In this search, we identified 565 Spanish municipalities that were affected by corruption between July 1999 and May 2007. We also identify more than 100 additional scandals breaking between 2007 and the end of 2009.

In order to realise this study, we have gathered news information on local scandals that occurred in 160 municipalities of the 565 where we identified at least a corruption case. These 160 municipalities were selected in the context of a different study (see Solé-Ollé and Sorribas-Navarro, 2014) to undertake an analysis of individuals' trust in Spanish local governments. Also, the high cost – in terms of time and resources – of collecting the news data would have

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<sup>54</sup> Table A.1. in the Appendix reports the definitions and summary statistics for all variables used in our study.

<sup>55</sup> Hence, our definition of corruption scandals implies that all cases included in our database have at least one publication in a Spanish newspaper for the period analysed.



made it impossible to gather all publications regarding the 565 Spanish municipalities. This sample of 160 municipalities affected by local corruption cases is representative with regard to municipality population size, the geographical location of the municipalities (by province) and the timing of the corruption scandal.

In this analysis, we are interested in the media coverage of those scandals that occurred in the municipalities we identified as affected by corruption. As explained in the previous section, the increasing wave of local corruption scandals experienced in Spain peaked before the local elections held in 2007. Hence, we focus on those scandals occurring until May 2007. 47 municipalities from our database experienced a corruption scandal during the local term that goes from July 1999 to May 2003, but not later, and they are not included in our final sample.<sup>56</sup> In addition, to avoid the influence that national corruption cases may have on the coverage of local scandals we restrict our sample to those cases that were published after the general elections of March 2004. 20 municipalities experienced a corruption case in that period, but no scandals were revealed after that. Hence, they are not included in the final sample. After applying these conditions to our list of 160 Spanish municipalities affected by corruption, we ended up with 93 municipalities that experienced at least a local scandal between March 2004 and May 2007. This will be our main sample of municipalities affected by corruption, and from these, we have identified a total number of 165 local scandals.

We have excluded from our list of scandals those cases that were not brought to light by media in the same period the corruption occurred. This prevents analysing corruption cases that did not affect the mayor in office. For the same reason, we did not include scandals that affected parties not in power. For each corruption case  $i$ , we have information on the politician involved in the scandal and the time of the corruption.

With this list of 165 corruption cases affecting local incumbent governments, we followed a word search strategy in newspaper archives to count the total number of news published by each  $j$  newspaper on each scandal. We used the paid digital information management service MyNews (<http://mynews.es>),

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<sup>56</sup> Table A.6. in the Appendix shows our main results for the 2003 term, finding no effects on the coverage of the scandals, neither from newspapers' ideological bias nor media capture.

which covers all national and regional Spanish newspapers. Thus, our database does not account for the local newspaper publications.<sup>57</sup>

First, through this virtual platform, we followed an automated search of news for all the  $i$  scandals previously identified. Specifically, we have examined all the news reported by the platform after the searches consisting of: i) the name of municipality and/or the politician involved in the scandal; and ii) a series of specific words in order to identify the news that covers the scandal.<sup>58</sup> The time period for the publications search was limited to 2004 and 2007. Since we are interested in how media outlets cover local corruption cases depending on the mayor's ideology, we have restricted the publications to those newspapers distributed in the geographic area where the corruption case happened. Thus, we avoid publications of newspapers that cover scandals occurring in regions where they have no commercial presence, which could represent a high level of noise in our analysis.

Second, once all news have been gathered using the search words, we count the number of publications explicitly related to the corruption case analysed. Overall, we have collected 5,680 pieces of news published in 48 different national and regional Spanish newspapers. As other studies in the literature (i.e., Puglisi and Snyder, 2011 or Latham, 2014), we account for the total amount of press coverage for each scandal. Our variable of interest is the total number of news published on the corruption case  $i$  by the media outlet  $j$  on the time span March 2004 – May 2007. We call this variable  $n_{ij}$ . It is important to note that we have also considered the situation where a newspaper  $j$ , which is distributed in the region where the scandal  $i$  occurred, does not publish about it. In those cases,  $n_{ij}$  will be equal to zero, indicating a potential selective omission of information by newspaper  $j$  if the story does not fit with the editorial ideology or their organisation's agenda (Anderson and McLaren,

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<sup>57</sup> In any case, it would be difficult to attribute a specific ideology to Spanish local newspapers. We must take into account that Spain has more than 8,000 municipalities, and also that 60% of those have less than 1,000 inhabitants.

<sup>58</sup> For example, we use the words 'scandal', 'corruption', 'investigation', 'guilty', etc. as well as their variations (i.e., 'corrupt', 'investigated', etc). Since we are working with Spanish data all these words were searched in Spanish, or the corresponding co-official language in the regions with more than one language (i.e., Catalonia, Valencia, Balearic Islands, Galicia and Basque Country).

2012).<sup>59</sup> Table A.1. in the Annex shows that, overall, the average number of publications of each newspaper  $j$  about each scandal  $i$  is almost three news stories. The distribution of  $n_{ij}$  has a long right tail. Five per cent of observations exceed 15 pieces of news, and 99% of the values are under 65 news. The proportion of zeros is quite high, 73.3%, but we must bear in mind that this value accounts for all newspapers in our database that, despite having a corruption case in their diffusion area, we have not found any news on this scandal. All these features of our dependent variable are taken into consideration during the empirical analysis.

#### **4.2. Newspapers' and Readers' Ideology**

The economic literature has applied different approaches to measure media outlets' ideological or partisan positions. Some authors have considered newspapers' explicit endorsements of politicians or ballot propositions (i.e., Ansolabehere *et al.* 2006; Ho and Quinn, 2008). Other authors (i.e., D'Alessio and Allen, 2000; Durante and Knight, 2009) measure the percentage of news devoted to each party candidate previous to an election. The language used in the news has been considered by some scholars to identify implicitly the political endorsement of media outlets (i.e., Groseclose and Milyo, 2005; Gentzkow and Shapiro 2010). Finally, a group of studies have measured implicit media slant based on the "agenda setting" theory (i.e., Larcinese *et al.*, 2011; Puglisi and Snyder, 2011). They identify the implicit political behaviour of media based on the amount of coverage each media outlet devotes to specific policy-target issues.

In order to identify the ideological preferences of the media outlets included in our database, we take advantage of the already defined Spanish media's 'polarized pluralist model' (Hallin and Mancini, 2004), which makes the ideology of quite a few newspapers a matter of common knowledge. This fact is stressed by the high degree of concentration among editorial groups. As explained in the previous section, in the Spanish media sector there are few

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<sup>59</sup> Table A.5. in the Appendix, which evaluates the existence of this 'omission bias', does not find evidence that newspapers consciously decide not to report information on specific scandals. It is unlikely to find this kind of bias, since information can be considered as a common good. Hence, if at least one newspaper reports on a specific corruption case, all agents (either citizens or the other media outlets) will know about that scandal. This implies that citizens could interpret the absence of information on a scandal from a specific newspaper as a sign that it has been bribed, which may imply important reputational costs for that media outlet (Gentzkow and Shapiro, 2006).

editorial groups that are easily connected with specific parties' ideology. We have collected the editorial ideology of the  $j$  media outlets included in our database using information from articles published in newspapers, personal blogs, web-pages on Spanish journalism and internet encyclopaedias.<sup>60</sup> Hence, we define newspaper ideology as a label implying that some editorial lines will be identified in a one-dimensional ideology position.<sup>61</sup> We have classified all  $j$  newspapers included in our database as left-wing or right-wing, depending on the ideology of the political party they support. We call this measure of the newspaper  $j$  editorial's ideology,  $EI_j$ .

In our database 11 of the 48 newspapers did not have an explicit ideology or did not endorse any specific political ideology. These newspapers were classified as 'neutral' media outlets, since they did not clearly fall into the right/left classifications. Considering that 'neutral' newspapers did not account for an extremely high number of publications – 1,064 out of 5,680 news– we have not considered such news in our analysis. This allows us to compare the extreme categories between aligned and unaligned media outlets. However, we report in Table A.4. in the Annex our main results including the additional classification of 'neutral' newspapers. These results show that media outlets without an ideology do not follow a specific behaviour in covering local corruption scandals, and they can be excluded from the analyses. Thus, the final database includes 4,616 pieces of news. We have also classified seven media outlets from our database as *National*, since they have a circulation of newspapers throughout the whole country. These newspapers account for 60% of the total news in our database. Data limitations from MyNews prevent us from using publications of local newspapers. However, in those cases the newspapers editorial's position would be much more difficult to identify. Local media outlets are specialised in the events that happen in a particular town, responding to local incidents as well as their municipal population's demands.

So far, we have defined a measure of the editorial line's position on the right-left spectrum. This would account for the supply-side factors of media bias

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<sup>60</sup> A complete list of references on web-pages used to ideologically classify the newspapers included in this analysis is available in Table A.2. in the Appendix.

<sup>61</sup> In some Spanish regions independency issues may also play a role in media outlets' ideology (i.e., Catalonia, Valencia, Balearic Islands, Galicia and Basque Country). To take this into consideration, we repeated our analysis excluding those regions, and arrived at the same results.

defined in Section 2. In order to consider, furthermore, the external factors that may influence media coverage of corruption scandals – demand-side drivers – we rely on the ideology reported by each newspaper’s readers. We use survey data from the Centro de Investigaciones Sociológicas (CIS), a Spanish research centre for social studies.<sup>62</sup> We create our measure of average partisanship of each newspaper’s readers by combining the interviewees’ self-reported ideology on a scale from 1 (extreme left) to 10 (extreme right), with information on which main newspaper each respondent reads. Hence, we measure the average ideology of each newspaper’s readers as follows. If more than 50% of the readers of a newspaper  $j$  define themselves as right-wingers, that newspaper is considered as from the right– and the opposite for left-wingers. We call this measure of the newspaper  $j$  readership’s ideology  $RI_j$ .<sup>63</sup>

### **4.3. Governments’ Ideology and Alignment Measures**

We have classified all local incumbents’ political parties included in our database as left-wing or right-wing, depending on their ideological position on a scale that goes from 0 (extreme-left) to 10 (extreme-right).<sup>64</sup> As previously explained, we focus our main analysis on 93 municipalities which experienced at least a corruption scandal between March 2004 and May 2007. After the exclusion conditions applied to our corruption cases we just consider scandals that were brought to light by media in the same term of office that corruption occurred. Hence, all mayors included in our database are affected by corruption scandals. We have collected the party ideology of those local incumbents, as well as the ideology of the party of the regional president. The period analysed, March 2004 to May 2007, accounts for the same term at the local level. This is important since we are considering local corruption scandals, whose impact could be higher on local elections. However, these cases may also affect the political party involved in the scandal during the regional elections. It is important to stress that for almost all the Autonomous

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<sup>62</sup> Specifically, we make use of the survey n° 2750 ‘Pre-electoral General Elections (2008)’. There is no survey information on one of the media outlets included in our database, ‘Cinco Días’, reason why it is not included in the main analysis.

<sup>63</sup> Table A.2. in the Appendix reports the list of newspapers used in the analysis with the classification of the editorials and readership ideologies.

<sup>64</sup> Three municipalities over the 96 initially identified did not fall either in the ‘left’ or ‘right’ incumbent category, since they were run by independent local governments. For our analysis, they were excluded from the database.

Communities considered in the analysis, this period also accounts for the same term at the regional level.<sup>65</sup>

In order to create our measure of ideological alignment between the newspaper  $j$  and the mayor involved in the local scandal  $i$ , we have combined the information on the newspaper editorial's ideology ( $EI_{ik}$ ) and the local incumbent's party ideology. Thus, our *Editorial-Mayor* ( $EM_{ij}$ ) alignment measure is a dummy equal to one if newspaper  $j$  shares the same ideology as the mayor involved in scandal  $i$ , and zero otherwise. The same procedure is followed to create our *Readers-Mayor* ( $RM_{ij}$ ) alignment measure, a dummy equal to one if the readers' average ideology of newspaper  $j$  is the same as the mayor involved in scandal  $i$ , and zero otherwise.

In order to consider the effect of media capture, we include in the analysis an alignment measure between the local government and the regional government. As explained in Section 2, in Spain the regional government holds the subsidiser role of media outlets. In that sense, it is unlikely that local mayors may have enough power to influence the news' content of national and regional newspapers. Hence, our interest is in the *Mayor-President* ( $MP_i$ ) alignment, a dummy equal to one if the mayor involved in scandal  $i$  shares the same right-left ideology with the regional president's party in that Autonomous Community. Since we are considering the general left/right definition of each party ideology, it could be the case that we classify as politically aligned two different local and regional parties if they share the same ideology. To verify that these few cases do not drive our results, we have replicated our analysis restricting the sample to scandals that affected the two major Spanish parties, PP and PSOE. Making use of this limited database we arrive at the same conclusions.<sup>66</sup>

#### 4.4. Municipality Control Variables

To realise the analysis of media capture, we considered a set of municipality controls that also included scandal characteristics. All the controls used and

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<sup>65</sup> The different timings for the regional elections in Andalusia, Catalonia, and Galicia implied that they experienced two different regional terms throughout the period of study. For these cases, we have considered the alignment with the political party involved in the scandal when the corruption took place.

<sup>66</sup> 83 municipalities in our database are ruled by PP or PSOE mayors, which accounts for 152 scandals and 4,354 news. Table A.7. in the Appendix shows our main results restricted to those scandals that affected these two major Spanish parties .

their summary statistics are reported and summarised in the second half of Table A.1. in the Annex. We first take into consideration information that tries to account for the main determinants of local corruption scandals. For this reason, we do account for the municipality's population size in 2003, whether it is on the coast or not, whether it is part of a metropolitan area or the municipality's share of vacant land in 2003. We use the unemployment rate in 2003 as an indicator of the municipality's economy and the voter turnout at the 1999 local elections as a proxy of the social capital levels. We should account for that factor since corruption is less frequent in places with higher levels of social capital (Nannicini *et al.*, 2013). Also, we choose the turnout levels in 1999 to account for the municipal social capital levels before the massive surge of corruption scandals. The total number of news published on the scandal and by municipality aims to gather the relevance of the scandals in each municipality.

We measure local political competition as the margin of victory of the incumbent government at the 2003 local elections. For that reason, we include as a control a government's popularity variable. We approach the likelihood that the mayor will lose the control of the local council as the difference in seats between those coalition parties that support the mayor's party and the seats from the alternative ideological bloc. The actual composition of Spanish coalitions is not reported, but there is evidence that these coalition governments are usually created by parties from the same ideological bloc (Curto *et al.*, 2013). Thus, we make use of the theoretical coalitions defined based on ideological blocs. Finally, we define *ElectoralMargin<sub>i</sub>* as the share of votes that the regional incumbent's government – classified as either left-wing or right-wing – has to lose (win) in the local elections in order to lose (gain) the majority of seats on the local council (see Curto *et al.*, (2013) for the definition of the variable).

## **5. Empirical Analysis**

### **5.1. Identification Strategy**

#### *5.5.1. Newspaper Ideological Slant*

Consider first the relationship between news coverage of corruption scandals and the newspaper ideological slant. The main econometric challenge we face to estimate this causal effect is the presence of unobservable factors that may

affect both the number of news published on the scandals and newspapers' ideological preferences. Some newspapers may follow a more aggressive strategy in unveiling and covering corruption scandals, while others may consider local corruption as trivial, and do not assign extensive coverage to that issue. Also, some specific scandals may draw the attention of citizens by their particularities, making more likely that all newspapers will publish information about them. We address the potential omitted variable bias by including fixed-effects in the estimation.

In our model, we have two sources of variation: across corruption scandals and across newspapers. The inclusion in the estimation of scandal-specific fixed effects will account for the specific traits of the corruption case, such as their interest generated among readers, the potential implications for of parties in office at higher levels of government or whether there was a judicial intervention. The newspaper-specific fixed effects will capture the large differences in size between the media outlets analysed (i.e., total distribution of newspapers, total number of pages, importance given to corruption scandals in general, etc.) or their popularity among readers.

To analyse the effect of ideological slant of newspapers and the coverage of corruption scandals (hypothesis H1.a in Section 3) we estimate the following model:

$$n_{ij} = \alpha_i + \alpha_j + \beta EM_{ij} + \varepsilon_{ij} \quad (1)$$

where  $n_{ij}$  is the total number of news published about the corruption case  $i$  by newspaper  $j$  between March 2004 and May 2007;  $\alpha_i$  are scandal-specific fixed effects;  $\alpha_j$  newspaper-specific fixed effects;  $EM_{ij}$  is a dummy variable equal to one if newspaper  $j$  shares the same ideology as the mayor involved in scandal  $i$ , and zero otherwise; and  $\varepsilon_{ij}$  is the error term.

In order to evaluate whether media bias is driven by external factors we also consider in (1) the ideological position of media outlets' audiences. Hence, instead of  $EM_{ij}$  we use  $RM_{ij}$  as the alignment measure.  $RM_{ij}$  is a dummy variable equal to one if the readers' average ideology of newspaper  $j$  is the same as that of the mayor involved in scandal  $i$ , and zero otherwise. We consider first the effect of each alignment measure on the total number of news and then we include in our model both alignment variables. Following our hypotheses *H1.a* and *H1.b* specified in Section 2, we expect to find a negative and statistically significant effect of  $\beta$ , indicating that newspapers



ideologically aligned with a political party – either by their editorial’s ideology or by their readers’ ideology – will publish less news on corruption involving that party.

We also include in (1) an interaction between each alignment variable and *National<sub>j</sub>*, a dummy equal to one if the media outlet *j* has a distribution of newspapers across all the country. National newspapers could present a different strategy when covering corruption cases, since their audiences will be the whole Spanish population. Thus, *National<sub>j</sub>* tries to measure whether these newspapers behave differently from the regional or the provincial ones when covering local scandals.

### *5.5.2. Media Capture*

Unlike Equation (1) we cannot include scandal-specific fixed effects in Equation (2) in order to identify the effect of media capture on the coverage of corruption scandals. Scandal-specific fixed effects account for the ideological position of both the local incumbent’s party and the president’s party at the regional level. Thus we would not be able to identify the effect of that alignment on media coverage. To overcome that issue, we include in our model a set of controls that aim to account for the specific characteristics of the corruption scandal and the municipality where it occurs.

Specifically, to measure the effect of media capture on the coverage of corruption scandals, we estimate the following general specification:

$$n_{ij} = \alpha_j + \delta X_i' + \varphi MP_i + \varepsilon_{ij} \quad (2)$$

where *MP<sub>i</sub>* is a dummy variable equal to zero if the mayor involved in scandal *i* shares the same right-left ideology as the regional president’s party at the regional level, and zero otherwise *X<sub>i</sub>'* is a vector of the aforementioned controls.<sup>67</sup> We include variables that account for the specific characteristics of the municipalities and also variables that may affect the visibility of the scandals among readers (i.e., municipality population size, unemployment rate,

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<sup>67</sup> As described in the data section, the specific control variables are: a variable (values 1-4) indicating municipality population size, dummies indicating whether the municipality is on the coast, if it is part of a metropolitan area, municipality’s share of vacant land, the turnout levels in the municipal elections of 1999, the unemployment rate, the total number of news published on the scandal and, by municipality, the electoral margin of the local incumbent’s party at the 2003 regional elections.

whether the municipality is on the coast, if it is part of a metropolitan area, total number of news published, incumbent's electoral margin, etc.).

As in the case where we measured ideological slant, we include in (2) a dummy equal to one if the media outlet  $j$  has a distribution of newspapers across all the country, which we name *National*. Audiences from newspapers distributed throughout all the country are not just the electorate of the incumbent involved in the local scandal, but the whole Spanish population. Hence, their incentives to bias the coverage of scandals may be different from regional or provincial newspapers.

Following hypothesis  $H2$  in Section 2, if regional governments influence media on the coverage of corruption scandals, we expect to find a negative and statistically significant effect of  $\varphi$  on the total number of corruption news published by each newspaper. Also, to check whether regional government may capture media outlets even if they did not share the same ideology (hypothesis  $H3$ ), we also include in (2)  $EM_{ij}$  and their interaction with  $MP_i$  ( $MP_i \times EM_{ij}$ ):

$$n_{ij} = \alpha_i + \delta X'_i + \beta EM_{ij} + \varphi MP_i + \omega(EM_{ij} \times MP_i) + \varepsilon_{ij} \quad (3)$$

### 5.5.3. Electoral Competition

As discussed in Section 2, newspapers may have incentives to report more or less information on local scandals depending on the regional incumbent's party electoral margin of victory in the last local elections. In order to test  $H4.a$ , we first include the interaction of this electoral margin variable in Equation (1).<sup>68</sup>

$$n_{ij} = \alpha_j + \delta X'_i + \beta EM_{ij} + \theta(EM_{ij} \times ElectoralMargin_i) + \varepsilon_{ij} \quad (4a)$$

where we must bear in mind that the vector of municipality controls  $X'_i$  already includes a measure of the electoral margin. In Equation (4a) the electoral margin is included as an interaction with our alignment measure, to account for the effect that local governments' popularity may have on the coverage of ideologically aligned media outlets.

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<sup>68</sup> Equation (4a) is also estimated using scandal fixed-effects ( $a_i$ ) including the interaction between the alignment of the newspaper and the mayor and the electoral margin.

To understand the intuition of Equation (4a) we must consider that our government's popularity variable is the difference between the seats of the coalition of parties backing the mayor in the local council and the seats of the alternative coalition.<sup>69</sup> Following the argument discussed in *H4.a*, we expect to find a stronger bias in close elections since newspapers face a lower reputational risk when they attack a weak mayor.

We also include an interaction between the electoral margin and the alignment between the regional and the local governments to test the effect of government's popularity on media capture:

$$n_{ij} = \alpha_j + \delta X_i' + \varphi MP_i + \zeta(MP_i \times ElectoralMargin_i) + \varepsilon_{ij} \quad (4b)$$

where  $X_i'$  also includes a measure of the electoral margin and  $ElectoralMargin_i$  is the same alignment measure previously explained. As explained in *H4.b*, we expect to find in Equation (4b) that capture will be larger when the local incumbent faces higher levels of political competition. In order to increase their political power, regional governments will be concerned at the likelihood that mayors from the same ideological bloc will lose the control of the local cabinets.

## 5.2. Estimation Method

The dependent variable in (1),  $n_{ij}$ , is count data, reason why the estimation by OLS is not the most appropriate approach to follow. OLS assumes that  $n_{ij}$  is normally distributed, a hypothesis already discarded by the natural behaviour of our data. However, we report in Table A.3. in the Appendix the main OLS results in the main estimations results. We use a Poisson count model to estimate (1) by maximum likelihood (ML).

As mentioned in the preceding section, the construction of  $n_{ij}$  implies a high percentage of values equal to zero. In these cases, the newspaper may have taken the voluntary decision not to publish on a specific corruption scandal. If the reasons behind the decision to start publishing on a specific corruption scandal are different from those that explain the degree of coverage – total number of news published – our model would suffer from an excess of zero counts in the data. This could be the case when an editor, even knowing that

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<sup>69</sup> In the data section the electoral margin variable is explained in more detail.

corruption has occurred, decides not to publish so not to affect the politician involved. The use of a zero-inflated Poisson model allows us to handle the excess of zero counts. In the zero-inflated Poisson a binary model is applied for publishing or not publishing on the scandal, and a count data model is applied for the positive values of news (Cameron and Trivedi, 1998). Besides addressing an econometric concern, this approach has the additional benefit of allowing us to determine whether being aligned with the party involved in the corruption case affects both the decision to publish and the amount of coverage devoted to the scandal.<sup>70</sup>

## 6. Results

We begin our empirical analysis with the study of the newspapers' ideological slant on the press coverage of corruption scandals. We consider both supply-side and demand-side factors. Then, we analyse the impact caused by capture on media coverage, also considering the situation where the two effects – ideological bias and capture – occur at the same time. Finally, we observe how the credibility of the scandals may alter the effect of bias caused by political factors.

### 6.1. Ideological Bias

The count model results of the estimation of Equation (1) are presented in Table 1. In the first column, we just consider the alignment between the newspaper's ideology and the mayor's party involved in scandal ( $EM_{ij}$ ). In the second column, we do the same but take into account the readers' average ideology and readers' partisanship ( $RM_{ij}$ ). Then, column (3) reports the results when both  $EM_{ij}$  and  $RM_{ij}$  are included in the specification. Column (4) also includes both variables, as well as their interaction with  $National_j$ , indicating whether the newspaper is distributed in the whole Spanish territory. As explained in the preceding section, all estimations reported in Table 1 include newspaper and scandal specific fixed effects that account for the different characteristics of the newspapers and corruption cases included in our database

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<sup>70</sup> As explained in footnote 13 Table A.5. in the Appendix indicates that the alignment with the party involved in the scandal does not prevent media outlets from publishing on the corruption case.

Table 1: *Press Coverage and Political Alignment -- Ideological slant*

	Zero-inflated Poisson			
	(1)	(2)	(3)	(4)
<i>Editorial vs. Mayor alignment</i>	-0.516 (0.131) <sup>***</sup>	---	-0.625 (0.252) <sup>**</sup>	-0.618 (0.330) <sup>*</sup>
<i>Readers vs. Mayor alignment</i>	---	-0.401 (0.141) <sup>***</sup>	0.136 (0.253)	0.116 (0.271)
<i>Editorial vs. Mayor al. x National newspaper</i>	---	---	---	-0.070 (0.689)
<i>Readers vs. Mayor al. x National newspaper</i>	---	---	---	0.082 (0.714)
<i>Newspaper fixed-effects</i>	YES	YES	YES	YES
<i>Scandal fixed-effects</i>	YES	YES	YES	YES
<i>Observations</i>	1,645	1,645	1,645	1,645
<i>Number of newspapers</i>	36	36	36	36
<i>Number of scandals</i>	165	165	165	165
<i>Number of municipalities</i>	93	93	93	93

Notes: (1) Dependent variable: count of news published by newspaper on each corruption case from March 2004 to May 2007; (2) Standard errors clustered at the municipal level in parentheses; \*\*\*:  $p < 0.01$ . \*\*:  $p < 0.05$ . \*:  $p < 0.1$ ; (3) Estimation method: Maximum Likelihood.

Our first finding is that ideological alignment between newspapers and incumbents' party involved in corruption cases has a negative and statistically significant impact on the amount of news published on the scandals. Newspapers do not give the same coverage to corruption cases from parties with a similar ideology, reducing the number of news on these scandals. Our results are in line with the supply-side approach of media bias, which considers that bias is explained by media outlets' own preferences. This finding is robust across all specifications.

In column (3) we include both variables –  $EM_{ij}$  and  $RM_{ij}$  – in the specification to also consider the demand-side explanations of media bias. Our results reveal that the alignment between the partisanship of the newspaper's readers and the party involved in the scandal is not a significant variable to explain media bias in the coverage of scandals. These findings differ from those obtained by Gentzkow and Shapiro (2010) and Puglisi and Snyder (2011). The studies show that in the US, media bias covering local corruption cases is largely explained by the ideologies of media outlet readers. Our results reveal that demand-driven coverage bias does not occur in Spain. Thus, media bias originates from the ideological slant of newspapers. An explanation for the

different results might be the fact that the Spanish media market displays higher levels of polarization than the US market (Hallin and Mancini, 2004).

Column (2) of Table 1 indicates that, considered on its own, the alignment between the partisanship of newspaper readers and the mayor's party involved in the scandal ( $RM_{ij}$ ) could be a driving factor of media bias. However, the value of this coefficient is lower than that found for the alignment between the ideology of editorials and that of the mayor ( $EM_{ij}$ ). It is important to add that a newspaper's ideology and reader partisanship could be highly correlated variables. Since readers want to obtain information from like-minded sources (Mullainathan and Shleifer, 2005), it is likely that newspapers and their readers' ideological positions will be similar. For example, Puglisi and Snyder (2014) confirm that in the US media outlets tend to respond to their readers' tastes. However, we find that for Spain the correlation between newspapers' ideology and average reader partisanship is 0.4, not an alarmingly high value.

In our last specification (column (4)) we test whether media ideological slant depends on newspapers' distribution areas. Hence, our alignment variables are included with their interactions and the variable *National*. This dummy will equal one if newspaper  $j$  is distributed across Spain. From the results in Table 1, the interactions of  $EM_{ij}$  and  $RM_{ij}$  with  $National_j$  are never significant. National newspapers cover issues that may interest a high number of readers, being less affected by local-level interests. That could make media outlets distributed nationally less likely to bias their coverage of corruption scandals based on their ideological preferences. However, it does not seem that national media outlets follow a different behaviour from sub-national (i.e., regional or provincial) outlets when covering corruption scandals.

So far, we have proved the existence of a media bias in the coverage of corruption scandals, mainly explained by supply-side factors. That confirms that newspapers are ideologically biased since they give less extensive coverage to corruption cases where the mayors involved belong to a party from their same ideology. The coefficient of  $EM_{ij}$  in column (3) of Table 1 indicates that an aligned newspaper will publish 0.535 times the expected number of news that a non-aligned newspaper would publish.<sup>71</sup> This means that a newspaper

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<sup>71</sup> In a zero-inflated Poisson log-linear model coefficients are interpreted as odds-ratios. In this case (column (1) of Table 1)  $\beta = -0.625$ . Hence, the difference in the logs of expected counts of news is 0.625 units lower for aligned media outlets. This value is interpreted as an incidence rate ratio (or IRR), exponentiating the estimated coefficient  $\exp(-0.625) = 0.535$ . We can obtain the % reduction on media coverage by calculating:  $[(1 - \exp(-0.625)) \times 100] = 46.5\%$ .

aligned with the accused incumbent would dedicate 46.5% less coverage to that corruption scandal. Puglisi and Snyder (2011) observe that a standard deviation increase in newspapers' endorsements – their endorsement measure goes from -1.5 to 1 – would mean that they dedicate 26% less coverage to the aligned party's scandals. Our different findings from the US results reveal a situation wherein the strong concentration and politicisation in the Spanish media market leads to high levels of ideological bias among media outlets.

Considering the predicted number of news stories,<sup>72</sup> we can see that non-aligned newspapers publish 5.8 news stories, while the expected number of publications for newspapers from the same ideology as that of the mayor involved in the scandal is 3.1. Hence, if we consider corruption cases of media coverage, ideological bias will account for a drop of 3 news stories or for almost half of the published news.

## **6.2. Media Capture**

Table 2 reports the estimations of the alignment between the mayor involved in the scandal and the regional president's party ( $MP_i$ ) defined in Equation (2), as well as the newspaper alignment with the party involved in scandal ( $EM_{ij}$ ). All estimations include newspaper fixed-effect and we account for the particularities of each municipality and corruption case by including the controls explained in Section 4.

In the first column, we simply consider the alignment between the mayor involved in the scandal and the regional president's party ( $MP_i$ ). In column (2), we include the interaction with *National* newspapers. In the third column, we also include the alignment with the newspaper ideology ( $EM_{ij}$ ). The fourth specification also includes the interaction between  $MP_i$  and  $EM_{ij}$ .

From results in column (1), we can see that the coefficient assigned to the alignment between the mayor's party and the president's party controlling the regional government ( $MP_i$ ) is negative and statistically significant. Hence, we can confirm that newspapers are captured since they give less extensive coverage to corruption scandals that involve the regional government's party in office.

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<sup>72</sup> Value generated by running post-estimation predictions using the *margins* command in Stata.

Table 2: Press Coverage and Political Alignment -- Capture and Ideological Slant

	Zero-inflated Poisson			
	(1)	(2)	(3)	(4)
<i>Mayor vs. President alignment</i>	-0.733 (0.203)***	-0.865 (0.213)***	-0.627 (0.206)***	-0.570 (0.228)***
<i>Mayor vs. President al. x National newspaper</i>	--	0.392 (0.423)	--	--
<i>Editorial vs. Mayor alignment</i>	--	--	-0.487 (0.132)***	-0.399 (0.319)
<i>Mayor vs. President al. x Editorial vs. Mayor al.</i>	--	--	--	-0.127 (0.382)
<i>Newspaper fixed-effects</i>	YES	YES	YES	YES
<i>Municipality controls</i>	YES	YES	YES	YES
<i>Observations</i>	1,645	1,645	1,645	1,645
<i>Number of newspapers</i>	36	36	36	36
<i>Number of scandals</i>	165	165	165	165
<i>Number of municipalities</i>	93	93	93	93

Notes: (1) Dependent variable: count of news published by newspaper on each corruption case from March 2004 to May 2007; (2) Standard errors clustered at the municipal level in parentheses; \*\*\*:  $p < 0.01$ . \*\*:  $p < 0.05$ . \*:  $p < 0.1$ ; (3) Estimation method: Maximum Likelihood; (4) Municipality controls include: a dummy variable (values 1-4) indicating municipality's population size, dummies indicating whether the municipality has a beach or not, if it is part of a metropolitan area, municipality's share of vacant land, turnout levels in the municipal elections, the unemployment rate, total number of news published on the scandal and by municipality, and the electoral margin.

The coefficient of  $MP_i$  in column (1) indicates that media outlets will dedicate 52% less coverage to those scandals in which the mayor's party involved in the corruption case is the same as the party of the president at the regional level.<sup>73</sup> If we consider the number of news stories, a media outlet would publish 4.2 stories on scandals when the mayor is not aligned with the president of the regional government and 1.7 stories if both incumbents share the same ideology.

When we considered media capture independently we find that national media outlets do not follow different behaviours (column (2)). This is the same result that we found for newspapers' ideological bias in Table 1. In column (3) of Table 2, we can see that even controlling for a newspaper's ideological slant ( $EM_{ij}$ ), the coverage of corruption scandals is lower in those situations where local and regional incumbent parties share the same ideology. The interesting

<sup>73</sup> Following the same explanation applied for Table 1, the value is calculated as follows:  $[(1 - \exp(-0.733)) \times 100] = 52\%$ .



result emerges when these two alignment measures are considered, as well as their interaction. In these cases, it seems from our results that the capture effect dominates the effect of ideological slant. Our estimations confirm that government capture of media outlets prevails over newspapers' ideological bias.

Table 3: *Predicted number of news under ideological slant and media capture*

		<i>Editorial-Mayor</i>	
		0	1
<i>Mayor-President</i>	0	4.229 [2.383 6.075]	2.503 [1.667 3.339]
	1	3.640 [1.913 5.368]	1.509 [1.139 1.880]

Notes: (1) The values were generated by running post-estimation predictions using the *margins* command in Stata; (2) [ ]: 95% confidence interval of the coefficient predictions.

Table 3 reports the predicted number of news<sup>74</sup> for each possible situation depending on the alignment status between the newspaper editorial's ideology and the local mayor ( $EM_{ij}$ ) and the local mayor with the president of the regional government ( $MP_i$ ). The predicted values correspond to the specification in column (4) of Table 2,<sup>75</sup> and we can see that the difference in the number of news between ideologically aligned newspapers is just significant when the local mayor and the regional president share the same ideology. In these cases, scandals from aligned mayors with the regional governments will receive 64.3% less coverage from aligned newspapers. This means that unaligned newspapers will report 4.2 news in cases where the ideology of the mayor involved in the scandal is not the same as that of the president of the region. Conversely, newspapers ideologically aligned with the mayor, when the mayor share the has the same ideology than the party of the regional president, will publish just 1.5 pieces of news. Hence, using the predicted number of news, we can see that media capture will be more likely

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<sup>74</sup> Value generated by running post-estimation predictions using the *margins* command in Stata.

<sup>75</sup> In this specification, scandal fixed-effects are not included, to account for the alignment between the local and regional government. For this reason, the predicted news is not exactly comparable with that found for estimations in Table 1, which included scandal-specific fixed effects.

to happen when newspapers are ideologically aligned with the party of the mayor involved in the scandal.

### 6.3. The effects of Electoral Competition

To account for the fact that different degrees of electoral competition may modify the incentives of media outlets to bias their coverage of corruption scandals, we include in our specifications a measure of the electoral margin of the regional party in local elections. Table 4 reports the results of the interaction between our alignment measures and electoral margin.

Table 4: *Press Coverage and Political Alignment -- Electoral Competition*

	Zero-inflated Poisson				
	(1)	(2)	(3)	(4)	(5)
<i>Editorial vs. Mayor alignment</i>	-0.546 (0.141) <sup>***</sup>	-0.710 (0.219) <sup>***</sup>	-0.714 (0.219) <sup>***</sup>	---	---
<i>Editorial vs. Mayor al. x Electoral Margin</i>	---	1.147 (0.773)	1.162 (0.786)	---	---
<i>Mayor vs. President alignment</i>	---	---	---	-0.733 (0.203) <sup>***</sup>	-0.824 (0.196) <sup>***</sup>
<i>Mayor vs. President al. x Electoral Margin</i>	---	---	---	---	2.530 (0.657) <sup>***</sup>
<i>Newspaper fixed-effects</i>	YES	YES	YES	YES	YES
<i>Scandal fixed-effects</i>	NO	NO	YES	NO	NO
<i>Municipality controls</i>	YES	YES	NO	YES	YES
<i>Observations</i>	1,645	1,645	1,645	1,645	1,645
<i>Number of newspapers</i>	36	36	36	36	36
<i>Number of scandals</i>	165	165	165	165	165
<i>Number of municipalities</i>	93	93	93	93	93

Notes: (1) Dependent variable: count of news published by newspaper on each corruption case from March 2004 to May 2007; (2) Standard errors clustered at the municipal level in parentheses; \*\*\*, p<0.01. \*\*, p<0.05. \*, p<0.1; (3) Estimation method: Maximum Likelihood; (4) Municipality controls: see Table 2.

Table 4 aims to measure the impact of the local council's popularity on newspapers' ideological bias and media capture. We should recall that the government's popularity, defined as  $ElectoralMargin_i$ , is measured as the share of votes that the regional incumbent's government – classified as either left-wing or right-wing – has to lose (win) in the local elections to lose (gain) the majority of seats on the local council. In Table 4,  $ElectoralMargin_i$ , included as a

control, is never statistically significant.<sup>76</sup> This implies that the government's electoral margin is not relevant for those unaligned media outlets or local councils. The number of news stories on local scandals will remain the same independent of the electoral margin. Thus, regional governments do not try to influence newspapers to report a lower level of corruption news when the opposition mayors are weak. However, regional governments may try to slow the coverage of scandals when mayors from their parties do not hold high electoral power. For that reason, we report the results of the electoral margin as they interact with our alignment measures.

We can see from column (1) that our results regarding the newspapers' ideological slant hold when, instead of using scandal-specific fixed effects, we control for municipality characteristics. In this case, the effect of slant accounts for a 42%<sup>77</sup> decrease in the coverage of corruption scandals, a similar value to the 46% we find when we use fixed effects (Table 1). Column (2) in Table 4 reports the estimation of Equation (4a); analysis of the effect of ideological slant is different when the local governments enjoy different levels of popularity. Our expectation in this case is that bias would be even higher in close elections, because newspapers would not have a reputation loss among their readers by reducing the number of news stories on their candidate's corruption (*H4.a*). Column (3) reports the same results, estimating (4a) including scandal fixed-effects instead of the vector of controls ( $X_i$ ).

Columns (4) and (5) in Table 4 present the results on media capture. In column (5), we can see that, once there is interaction between the regional president and the local mayor and the electoral margin – as well as the local margin as a control – the coefficient associated with media capture increases to -0.824. Overall, we would estimate a 56% decrease in the coverage of scandals as a consequence of media capture.<sup>78</sup> Regarding the effect of the electoral margin, as hypothesis *H4.b* states, regional governments have higher incentives to capture media when mayors face lower levels of electoral popularity.

To be able to measure the impact of the electoral margin on our interaction models, we estimate the number of news stories published considering both ideological slant and media capture at different levels of local government

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<sup>76</sup> Column (3) in Table 4 does not include *ElectoralMargin<sub>i</sub>* as a control, since it has scandal-specific fixed effects.

<sup>77</sup> Following the same calculations as before:  $[(1-\exp(-0.547))\times 100]=42.1\%$ .

<sup>78</sup> This has been calculated as:  $[(1-\exp(-0.824))\times 100]=56.1\%$ .

popularity. Table 5 reports these predicted values, holding all other variables of the model constant.

Table 5: Predicted number of news under different levels of electoral margin

		<i>Editorial-Mayor</i>		<i>Mayor-President</i>	
		0	1	0	1
<i>Electoral Margin</i>	0	2,7 [1,98 3,44]	1,4 [0,95 1,95]	2,8 [1,90 3,68]	1,3 [0,93 1,57]
	0.25	2,7 [1,92 3,39]	1,9 [1,35 2,36]	2,5 [1,40 3,56]	2,1 [1,35 2,36]
	0.5	2,6 [1,64 3,57]	2,4 [0,79 3,96]	2,2 [0,76 3,64]	3,5 [2,41 4,67]

Notes: (1) The values were generated by running post-estimation predictions using the *margins* command in Stata; (2) [ ]: 95% confidence interval of the coefficient predictions. (3) To calculate the predicted counts all other variables in the model have been hold constant.

The predicted number of news reported in Table 5 indicates that newspapers' ideological slant is present for aligned mayors who face lower margins of victory. The number of news is significantly lower for ideologically aligned newspapers only when the incumbent's party won the election by a very thin margin (i.e., lower than the 10% of the vote share). However, from results in Table 5, we can see that the difference between aligned and unaligned newspapers is no longer significant for incumbents who hold larger vote shares in the local council. As predicted in hypothesis *H4.a*, in close elections newspapers' ideological slant is stronger.

Considering media capture, results in Table 5 show that the predicted number of news also depends on the alignment between regional and local governments. Regional governments exert power to silence negative information in those municipalities where, even if ideologically aligned with the incumbent in power, the regional president's party does not hold the mayoralty. Also, from results in Table 5, we see that media capture does not occur in those situations where incumbents win local elections by a large margin, as predicted in hypothesis *H4.b*.

## 7. Conclusions

This chapter analyses the coverage of local corruption scandals in Spain between March 2004 and May 2007, differentiating between the effects on media bias of newspapers' ideological slant and capture exerted by the

government. We have collected data on news through automated keyword-based Internet searches, during a period of many corruption scandals.

In our analysis we put forward a framework where two hypotheses are set out: media slant is considered if newspapers give less extensive coverage to scandals from ideologically aligned mayor. Alternatively, we consider media is captured if newspapers give a different treatment to cases involving the party in office in the regional government. We also considered both effects together, and we tested for the existence of mitigating factors of media bias.

Our results confirm the existence of an ideological bias in newspapers, which report less news on corruption if the incumbent involved in the scandal espouses the same ideology. Specifically, media outlets aligned with the accused mayor would dedicate 46.5% less coverage to that corruption scandal. Hence, from our analysis ideological slant appears to be greater in Spain than for the US news market. In contrast to the results of Gentzkow and Shapiro (2010) and Puglisi and Snyder (2011), we do not find evidence of the existence of a demand-side explanation of media bias. In our analysis, a newspaper's ideological position is the driving factor of media slant. A plausible explanation for that result could be the specific characteristics of the news market in Spain; for example, the high degree of concentration among the editorial groups and the low circulation rates may politicise media outlets.

Considering the incidence of media capture, we observe that local scandals where the mayor and the president of the regional party share the same ideology receive a 52% decrease in their media coverage. This effect prevails even when ideological slant is also considered. Neither for our analysis on media outlets' ideological slant, nor for media capture do we find evidence that national newspapers behave differently in terms of media bias concerns.

Our results also reveal that ideological slant and media capture are stronger in close elections. Newspapers face a lower reputational risk from biasing their coverage of unpopular governments, and regional governments try to avoid the electoral impact of corruption information on their local councils. However, neither effect occurs in those situations where aligned mayors win local elections by a large electoral margin.

The policy implications of our results are related to the fact that demand bias seems not to be a problem in the Spanish context. Decreasing the ways in which media outlets are dependent on governments would make editors look for revenues through a higher number of newspapers actually sold to

costumers. A challenge not addressed in our analysis is the relationship between capture and competition in the news market. Several theoretical studies (Besley and Prat, 2006) predict that both pluralism and independence of media outlet ownership prevent capture. Also, the state ownership of media will be related to the degree of freedom in the media market, which can also be affected by the level of public spending or subsidies assigned to those media sources. Given that we do not have data on the specific amounts devoted to each media outlet, we cannot perform a proper analysis of the effects of public spending.

Our results are relevant since mass media has a crucial role in how corruption scandals influence citizens and, therefore, political and economic outcomes. Information supplied by media outlets makes citizens more aware of local politics (Snyder and Strömberg, 2010) and increases their political involvement (Strömberg, 2004b). As a result, media coverage increases voter information, which in turn helps citizens to keep politicians accountable (Ferraz and Finan, 2008). Hence, the availability of reliable information provided by media outlets is essential to guaranteeing the efficiency of elections as an accountability tool. The fact that newspapers are not balanced when they offer information to their readers on political scandals casts doubt on the ability of media to guarantee the proper functioning of democratic systems.

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## Appendix.

Table A.1: Definition of the variables and Summary Statistics

Variable	Definition	Mean	St.Dev.
<i>News</i>	Total number of news published by newspaper $j$ on scandal $i$ between March 2004 and May 2007	2,81	10,77
<i>Alignment Variables</i>			
<i>Editorial vs. Mayor alignment</i>	Dummy equal to one if newspaper's ideology is the same as that of the local incumbent's party	0,57	0,50
<i>Readers vs. Mayor alignment</i>	Dummy equal to one if the average newspaper readership's ideology is the same as that of the local incumbent's party	0,48	0,50
<i>Mayor vs. President alignment</i>	Dummy equal to one if the party of the mayor is the same as that of the president of the Autonomous Community	0,71	0,45
<i>Ideology Variables</i>			
<i>Editorial's Ideology</i>	Newspaper's endorsement (1-2): 1: Left-wing; 2: Right-wing	1,78	0,41
<i>Readership's Ideology</i>	Average newspaper's readers ideology (1-2): 1: Left-wing; 2: Right-wing	1,40	0,49
<i>Mayor's Ideology</i>	Local incumbent's party ideology (1-2): 1: Left-wing; 2: Right-wing	1,60	0,49
<i>Regional President's Ideology</i>	Regional president's party ideology (1-2): 1: Left-wing; 2: Right-wing	1,61	0,49
<i>National newspaper</i>	Dummy equal to one if the newspaper has diffusion in the whole Spanish's territory	0,60	0,49
<i>Municipal-scandal Controls</i>			
<i>Population</i>	Municipality's population size in 2003 (1-4): 1: $\leq 10,000$ ; 2: 10,000-100,000; 3: 100,000-500,000; 4: $> 500,000$ inhabitants	2,57	1,15
<i>Beach</i>	Dummy variable equal to one if municipality has beach	0,42	0,49
<i>Metropolitan Area</i>	Dummy variable equal to one if municipality belongs to an metropolitan area	0,72	0,45
<i>Vacant Land</i>	Percentage share of vacant land for building at the municipality in 2003	0,33	0,17
<i>Unemployment</i>	Percentage of unemployed among individuals aged 20-59 in 2003	0,13	0,06
<i>Voter Turnout</i>	Voter turnout at the 1999 local elections	0,66	0,09
<i>Total news municipality</i>	Total number of corruption news published by municipality	251,93	400,92
<i>Total news case</i>	Total number of corruption news published by corruption case	27,86	42,67
<i>Electoral Margin</i>	% of votes cast at the 2003 local elections that have to be added to (subtracted from) the Regional incumbent party to win (lose) a majority of seats in the local council	0,12	0,26

Source of data: (i) number of news on corruption scandals, constructed from an initial list of scandals compiled by Fundacion Alternativas and own Internet searches; (ii) Newspaper's and readership ideology: authors own construction and survey data from the Centro de Investigaciones Sociológicas (CIS) (see section 3 for more details); (iii) % vote turnout and election statistics needed to built the mayor's ideology, regional president's ideology and electoral margin, provided by the Spanish Ministry of Interior & Ministry of Public Administration; (iv) Municipality-level variables: 2001 Census of Population (National Institute of www.ine.es), for % Unemployed and Population; Ministry of the Environment and Rural and Marine Affairs for Beach; Ministry of Housing for data on metropolitan area and urban land.

Table A.2: *List of Newspapers: Editorial and Readership's Ideologies*

Newspaper's name	Ej	Rj	Editorial Group	Political Ideology	Source of information
<i>ABC</i>	3	3	Vocento	"Right-wing, monarchy and catholicism"	<a href="http://noesunamanzana.blogspot.gr/2006/11/la-ideologa-de-un-peridico-diario-abc.html">http://noesunamanzana.blogspot.gr/2006/11/la-ideologa-de-un-peridico-diario-abc.html</a>
<i>Avui</i>	3	1	Hermes Comunicaciones	"Right-wing, Catalan independentism"	<a href="http://es.wikipedia.org/wiki/Avui">http://es.wikipedia.org/wiki/Avui</a>
<i>Canarias 7</i>	2	1	Informaciones Canarias	"Neutral"	<a href="http://es.wikipedia.org/wiki/Canarias7">http://es.wikipedia.org/wiki/Canarias7</a>
<i>Cinco Días</i>	1	n.a.	Prisa	"Left-wing"	<a href="http://www.solosequosenada.com/2011/11/18/quien-manda-en-los-medios-de-comunicacion-en-espana/">http://www.solosequosenada.com/2011/11/18/quien-manda-en-los-medios-de-comunicacion-en-espana/</a>
<i>Córdoba</i>	1	1	Zeta	"Left-wing"	<a href="http://www.solosequosenada.com/2011/11/18/quien-manda-en-los-medios-de-comunicacion-en-espana/">http://www.solosequosenada.com/2011/11/18/quien-manda-en-los-medios-de-comunicacion-en-espana/</a>
<i>Correo Gallego</i>	3	1	Editorial Compostela	"Right-wing, Catholic, Spanish nationalism"	<a href="http://www.ciao.es/EL_CORREO_GALLEGO_Opinion_1079114">http://www.ciao.es/EL_CORREO_GALLEGO_Opinion_1079114</a>
<i>Diari de Girona</i>	3	3	Editorial Prensa Ibérica	"Right-wing"	<a href="http://ca.wikipedia.org/wiki/Diari_de_Girona">http://ca.wikipedia.org/wiki/Diari_de_Girona</a>
<i>Diario de Ibiza</i>	2	3	Grupo Moll	"Neutral"	<a href="http://www.solosequosenada.com/2011/11/18/quien-manda-en-los-medios-de-comunicacion-en-espana/">http://www.solosequosenada.com/2011/11/18/quien-manda-en-los-medios-de-comunicacion-en-espana/</a>
<i>Diario de León</i>	3	1	Begar	"Right-wing"	<a href="http://www.solosequosenada.com/2011/11/18/quien-manda-en-los-medios-de-comunicacion-en-espana/">http://www.solosequosenada.com/2011/11/18/quien-manda-en-los-medios-de-comunicacion-en-espana/</a>
<i>Diario de Mallorca</i>	1	1	Grupo Moll	"Left-center"	<a href="http://es.wikipedia.org/wiki/Diario_de_mallorca">http://es.wikipedia.org/wiki/Diario_de_mallorca</a>
<i>Diario del Alto Aragón</i>	2	1	Publicaciones y Ediciones del Alto Aragón	"Neutral"	<a href="http://es.wikipedia.org/wiki/Diario_del_AltoArag%C3%B3n">http://es.wikipedia.org/wiki/Diario_del_AltoArag%C3%B3n</a>
<i>El Comercio</i>	3	1	Vocento	"Right-wing" "Political Ideology: Conservative"	<a href="http://es.wikipedia.org/wiki/El_Comercio_(Espa%C3%B1a)">http://es.wikipedia.org/wiki/El_Comercio_(Espa%C3%B1a)</a>
<i>El Correo</i>	3	1	Vocento	"Conservative liberalism, right-wing, Spanish nationalism"	<a href="http://es.wikipedia.org/wiki/El_Correo">http://es.wikipedia.org/wiki/El_Correo</a>
<i>El Dia de Balears</i>	3	3	Unidad Editorial Información	"Right-wing"	<a href="http://comentartextos.blogspot.gr/2012/04/ideologia-en-los-medios-de-comunicacion.html">http://comentartextos.blogspot.gr/2012/04/ideologia-en-los-medios-de-comunicacion.html</a>
<i>El Diario Vasco</i>	3	1	Vocento	"Conservative liberalism, center-right, Spanish nationalism"	<a href="http://es.wikipedia.org/wiki/El_Diario_Vasco">http://es.wikipedia.org/wiki/El_Diario_Vasco</a>
<i>El Mundo</i>	3	3	Unidad Editorial	"Right-wing"	<a href="http://comentartextos.blogspot.gr/2012/04/ideologia-en-los-medios-de-comunicacion.html">http://comentartextos.blogspot.gr/2012/04/ideologia-en-los-medios-de-comunicacion.html</a>
<i>El Norte de Castilla</i>	3	1	Vocento	"Right-wing"	<a href="http://es.wikipedia.org/wiki/Vocento">http://es.wikipedia.org/wiki/Vocento</a>
<i>El País</i>	1	1	Prisa	"Left-wing"	<a href="http://es.wikipedia.org/wiki/El_Pa%C3%As">http://es.wikipedia.org/wiki/El_Pa%C3%As</a>
<i>El Periódico</i>	1	1	Zeta	"Left-wing; Progressive ideology"	<a href="http://es.wikipedia.org/wiki/El_Pa%C3%ADs#Ideolog.C3.ADA_y_cr.C3.Adticas">http://es.wikipedia.org/wiki/El_Pa%C3%ADs#Ideolog.C3.ADA_y_cr.C3.Adticas</a>
<i>El Periódico de Aragón</i>	1	1	Zeta	"Progressive, Aragon regionalism"	<a href="http://es.wikipedia.org/wiki/El_Per%C3%B3dico_de_Arag%C3%B3n">http://es.wikipedia.org/wiki/El_Per%C3%B3dico_de_Arag%C3%B3n</a>
<i>El Periódico de Catalunya</i>	1	3	Zeta	"Progressive ideology, Catalanism, Left-wing"	<a href="http://es.wikipedia.org/wiki/El_Per%C3%B3dico_de_Catalunya">http://es.wikipedia.org/wiki/El_Per%C3%B3dico_de_Catalunya</a>
<i>El Periódico de Extremadura</i>	1	1	Zeta	"Left-wing"	<a href="http://www.solosequosenada.com/2011/11/18/quien-manda-en-los-medios-de-comunicacion-en-espana/">http://www.solosequosenada.com/2011/11/18/quien-manda-en-los-medios-de-comunicacion-en-espana/</a>
<i>El Punt</i>	3	1	Hermes Comunicacions	"Left-wing; catalan independentism"	<a href="http://es.wikipedia.org/wiki/El_Punt">http://es.wikipedia.org/wiki/El_Punt</a>
<i>Expansión</i>	3	1	Unidad Editorial (El Mundo)	"Right-wing"	<a href="http://www.solosequosenada.com/2011/11/18/quien-manda-en-los-medios-de-comunicacion-en-espana/">http://www.solosequosenada.com/2011/11/18/quien-manda-en-los-medios-de-comunicacion-en-espana/</a>

Table A.2: List of Newspapers: Editorial and Readership's Ideologies (cont.)

Newspaper's name	Eij	Rij	Editorial Group	Political Ideology	Source of information
<i>Faro de Vigo</i>	1	1	Grupo Moll	"Left-center"	<a href="http://es.scribd.com/doc/225407592/Faro-de-Vigo-analisis-desde-1853-hasta-la-actualidad">http://es.scribd.com/doc/225407592/Faro-de-Vigo-analisis-desde-1853-hasta-la-actualidad</a>
<i>Heraldo de Aragón</i>	3	1	Heraldo de Aragón	"Political Ideology: conservative, regionalismo aragonés,	<a href="http://es.wikipedia.org/wiki/Heraldo_de_Aragon">http://es.wikipedia.org/wiki/Heraldo_de_Aragon</a>
<i>Hoy</i>	3	1	Vocento	"Right-wing"	<a href="http://es.wikipedia.org/wiki/Vocento">http://es.wikipedia.org/wiki/Vocento</a>
<i>Ideal</i>	3	1	Vocento	"Right-wing"	<a href="http://es.wikipedia.org/wiki/Vocento">http://es.wikipedia.org/wiki/Vocento</a>
<i>Información</i>	3	1	Grupo Joly	"Conservatism"	<a href="http://cincominutos.com/apostasia/blog/?p=48">http://cincominutos.com/apostasia/blog/?p=48</a> <a href="http://www.solosequosenada.com/2011/11/18/quien-manda-en-los-medios-de-comunicacion-en-espana/">http://www.solosequosenada.com/2011/11/18/quien-manda-en-los-medios-de-comunicacion-en-espana/</a>
<i>La Gaceta</i>	3	1	Gama 50	"extreme right-wing "	<a href="http://es.wikipedia.org/wiki/La_Nueva_Espa%C3%B1a">http://es.wikipedia.org/wiki/La_Nueva_Espa%C3%B1a</a>
<i>La Nueva España</i>	3	1	Editorial Prensa Ibérica	"Right-wing, liberalism"	<a href="http://www.solosequosenada.com/2011/11/18/quien-manda-en-los-medios-de-comunicacion-en-espana/">http://www.solosequosenada.com/2011/11/18/quien-manda-en-los-medios-de-comunicacion-en-espana/</a>
<i>La Opinión de A Coruña</i>	2	n.a.	Moll-prensa ibérica	"Neutral"	<a href="http://www.solosequosenada.com/2011/11/18/quien-manda-en-los-medios-de-comunicacion-en-espana/">http://www.solosequosenada.com/2011/11/18/quien-manda-en-los-medios-de-comunicacion-en-espana/</a>
<i>La Opinión de Málaga</i>	2	n.a.	Moll-prensa ibérica	"Neutral"	<a href="http://www.solosequosenada.com/2011/11/18/quien-manda-en-los-medios-de-comunicacion-en-espana/">http://www.solosequosenada.com/2011/11/18/quien-manda-en-los-medios-de-comunicacion-en-espana/</a>
<i>La Opinión de Murcia</i>	2	n.a.	Moll-prensa ibérica	"Neutral"	<a href="http://www.solosequosenada.com/2011/11/18/quien-manda-en-los-medios-de-comunicacion-en-espana/">http://www.solosequosenada.com/2011/11/18/quien-manda-en-los-medios-de-comunicacion-en-espana/</a>
<i>La Opinión de Tenerife</i>	2	n.a.	Moll-prensa ibérica	"Neutral"	<a href="http://www.solosequosenada.com/2011/11/18/quien-manda-en-los-medios-de-comunicacion-en-espana/">http://www.solosequosenada.com/2011/11/18/quien-manda-en-los-medios-de-comunicacion-en-espana/</a>
<i>La Provincia</i>	2	1	Moll-prensa ibérica	"Neutral"	<a href="http://www.solosequosenada.com/2011/11/18/quien-manda-en-los-medios-de-comunicacion-en-espana/">http://www.solosequosenada.com/2011/11/18/quien-manda-en-los-medios-de-comunicacion-en-espana/</a>
<i>La Razón</i>	3	3	Grupo Planeta	"Political Ideology: Right-wing, Conservative, Catholic"	<a href="http://es.wikipedia.org/wiki/La_Raz%C3%B3n_(Espa%C3%B1a)">http://es.wikipedia.org/wiki/La_Raz%C3%B3n_(Espa%C3%B1a)</a>
<i>La Vanguardia</i>	3	1	Grupo Godó	"Political Ideology: Right-wing, nationalism, liberalism"	<a href="http://es.wikipedia.org/wiki/La_Vanguardia">http://es.wikipedia.org/wiki/La_Vanguardia</a>
<i>La Verdad</i>	3	3	Vocento	"Right-wing"	<a href="http://comentartextos.blogspot.gr/2012/04/ideologia-en-los-medios-de-comunicacion.html">http://comentartextos.blogspot.gr/2012/04/ideologia-en-los-medios-de-comunicacion.html</a>
<i>La Voz de Asturias</i>	1	1	Mediapro	"Progressive, left-wing"	<a href="http://cincominutos.com/apostasia/blog/?p=48">http://cincominutos.com/apostasia/blog/?p=48</a>
<i>La Voz de Cádiz</i>	3	1	Vocento	"Right-wing"	<a href="http://comentartextos.blogspot.gr/2012/04/ideologia-en-los-medios-de-comunicacion.html">http://comentartextos.blogspot.gr/2012/04/ideologia-en-los-medios-de-comunicacion.html</a>
<i>La Voz de Galicia</i>	2	1	La Voz de Galicia	"Neutral"	<a href="http://comentartextos.blogspot.gr/2012/04/ideologia-en-los-medios-de-comunicacion.html">http://comentartextos.blogspot.gr/2012/04/ideologia-en-los-medios-de-comunicacion.html</a>
<i>Las Provincias</i>	3	3	Vocento	"Conservatism, Valencian regionalism"	<a href="http://es.wikipedia.org/wiki/Las_Provincias">http://es.wikipedia.org/wiki/Las_Provincias</a>
<i>Levante-EMV</i>	1	1	Prensa Ibérica	"Progressive tendency"	<a href="http://es.wikipedia.org/wiki/Levante-EMV">http://es.wikipedia.org/wiki/Levante-EMV</a>
<i>Mediateráneo</i>	1	1	Zeta	"Progressive, left-wing"	<a href="http://cincominutos.com/apostasia/blog/?p=48">http://cincominutos.com/apostasia/blog/?p=48</a> <a href="http://www.solosequosenada.com/2011/11/18/quien-manda-en-los-medios-de-comunicacion-en-espana/">http://www.solosequosenada.com/2011/11/18/quien-manda-en-los-medios-de-comunicacion-en-espana/</a>
<i>Región7</i>	2	1	ACPG	"Neutral"	<a href="http://es.wikipedia.org/wiki/Segre_(diario)">http://es.wikipedia.org/wiki/Segre_(diario)</a>
<i>Segre</i>	2	n.a.	Diari Segre	"Neutral"	<a href="http://comentartextos.blogspot.gr/2012/04/ideologia-en-los-medios-de-comunicacion.html">http://comentartextos.blogspot.gr/2012/04/ideologia-en-los-medios-de-comunicacion.html</a>
<i>SUR</i>	3	1	Comerensa Prensa	"Right-wing"	<a href="http://comentartextos.blogspot.gr/2012/04/ideologia-en-los-medios-de-comunicacion.html">http://comentartextos.blogspot.gr/2012/04/ideologia-en-los-medios-de-comunicacion.html</a>

Notes: (1) Ideology codification: 1 "Left-wing", 2 "Neutral" or 3 "Right-wing" depending on the political parties each editorial is more likely to support (Eij) or their readerships ideology (Rij). (2) Sources: self elaboration of *editorial's ideology* (Eij) variable using information from articles published in newspapers, personal blogs, web-pages on Spanish journalism, internet encyclopaedias and so on. Readerships ideology (Rij) based on survey n° 2750 "Pre-electoral General Elections (2008)" from the Centro de Investigaciones Sociológicas (CIS). (3) Readership's Ideology is non available (n.a.) in those cases where the CIS data did not report information on that newspaper.

Table A.3: Press Coverage and Political Alignment -- Slant and Capture (OLS Results)

	OLS				
	(1)	(2)	(3)	(4)	(5)
<i>Editorial vs. Mayor alignment</i>	-1.156 (0.615)*	---	---	---	---
<i>Readers vs. Mayor alignment</i>	---	-0.482 (0.525)	---	---	---
<i>Mayor vs. President alignment</i>	---	---	-0.816 (0.679)	-0.602 (0.660)	0.268 (0.687)
<i>Editorial vs. Mayor alignment</i>	---	---	---	-1.098 (0.443)**	0.017 (0.687)
<i>Mayor vs. President al. x Editorial vs. Mayor al.</i>	---	---	---	---	-1.710 (1.019)*
<i>Newspaper fixed-effects</i>	YES	YES	YES	YES	YES
<i>Scandal fixed-effects</i>	YES	YES	NO	NO	NO
<i>Municipality controls</i>	NO	NO	YES	YES	YES
<i>Observations</i>	1,645	1,645	1,645	1,645	1,645
<i>Number of newspapers</i>	36	36	36	36	36
<i>Number of scandals</i>	165	165	165	165	165
<i>Number of municipalities</i>	93	93	93	93	93

Notes: (1) Dependent variable: count of news published by newspaper on each corruption case from March 2004 to May 2007; (2) Standard errors clustered at the municipal level in parentheses; \*\*\*: p<0.01. \*\*: p<0.05. \*: p<0.1; (3) Estimation method: OLS; (4) Municipality controls: see Table 2.

Table A.4.: Press Coverage and Political Alignment -- Ideological slant of Aligned, Hostil and Neutral newspapers

	Zero-inflated Poisson		OLS	
	(1)	(2)	(3)	(4)
<i>Aligned Newspapers</i>	-0.502 (0.126)***	---	-0.816 (0.438)*	---
<i>Neutral Newspapers</i>	-0.902 (3.240)	---	18.588 (12.372)	---
<i>Mayor vs. President alignment</i>	---	-0.079 (0.243)	---	-0.624 (0.511)
<i>Newspaper fixed-effects</i>	YES	YES	YES	YES
<i>Scandal fixed-effects</i>	YES	YES	YES	YES
<i>Observations</i>	2,199	2,199	2,199	2,199
<i>Number of newspapers</i>	49	49	49	49
<i>Number of scandals</i>	179	179	179	179
<i>Number of municipalities</i>	102	102	102	102

Notes: (1) Dependent variable: count of news published by newspaper on each corruption case from March 2004 to May 2007; (2) Standard errors clustered at the municipal level in parentheses; \*\*\*: p<0.01. \*\*: p<0.05. \*: p<0.1; (3) Estimation method: Maximum Likelihood (columns (1)-(2)) and OLS (columns (3)-(4)); (4) Base category: Hostile Newspaper; (5) We cannot repeat several interactions from previous analysis as there are simply too few observations for neutral newspapers.

Table A.5.: Press Coverage and Political Alignment -- Omission Bias

	Zero-inflated Poisson			
	(1)	(2)	(3)	(4)
<i>Editorial vs. Mayor alignment (coverage)</i>	-0.516 (0.131) <sup>***</sup>	--.--	-0.486 (0.132) <sup>***</sup>	-0.399 (0.319)
<i>Editorial vs. Mayor alignment (decision to publish)</i>	-0.088 (0.224)	--.--	-0.092 (0.178)	-0.282 (0.284)
<i>Mayor vs. President alignment (coverage)</i>	--.--	-0.733 (0.203) <sup>***</sup>	-0.627 (0.206) <sup>***</sup>	-0.570 (0.288) <sup>***</sup>
<i>Mayor vs. President alignment (decision to publish)</i>	--.--	-0.162 (0.214)	-0.132 (0.216)	-0.274 (0.288)
<i>Editorial vs. Mayor al. x Mayor vs. President al. (coverage)</i>	--.--	--.--	--.--	-0.127 (0.382)
<i>Editorial vs. Mayor al. x Mayor vs. President al. (decision to publish)</i>	--.--	--.--	--.--	0.266 (0.372)
<i>Newspaper fixed-effects</i>	YES	YES	YES	YES
<i>Scandal fixed-effects</i>	YES	NO	NO	NO
<i>Municipality controls</i>	NO	YES	YES	YES
<i>Observations</i>	1,645	1,645	1,645	1,645
<i>Number of newspapers</i>	36	36	36	36
<i>Number of scandals</i>	165	165	165	165
<i>Number of municipalities</i>	93	93	93	93

Notes: (1) Dependent variable: count of news published from March 2004 to May 2007 when analyzing the alignment's effect on coverage; and whether the media outlet has published (=1) or not (=0) about the corruption scandal when analyzing the alignment's effect on publish; (2) Standard errors clustered at the municipal level in parentheses; \*\*\*:  $p < 0.01$ . \*\*:  $p < 0.05$ . \*:  $p < 0.1$ ; (3) Estimation method: Maximum Likelihood; (4) Municipality controls: see Table 2.

Table A.6.: Press Coverage and Political Alignment -- 2003 Local Elections

	Zero-inflated Poisson			
	(1)	(2)	(3)	(4)
<i>Editorial vs. Mayor alignment</i>	0.029 (0.261)	---	-0.118 (0.287)	-0.358 (0.721)
<i>Mayor vs. President alignment</i>	---	0.558 (0.355)	0.564 (0.346)	0.406 (0.472)
<i>Editorial vs. Mayor al. x Mayor vs. President al.</i>	---	---	---	0.414 (0.901)
<i>Newspaper fixed-effects</i>	YES	YES	YES	YES
<i>Scandal fixed-effects</i>	YES	NO	NO	NO
<i>Municipality controls</i>	NO	YES	YES	YES
<i>Observations</i>	735	735	735	735
<i>Number of newspapers</i>	19	19	19	19
<i>Number of scandals</i>	87	87	87	87
<i>Number of municipalities</i>	47	47	47	47

Notes: (1) Dependent variable: count of news published by newspaper on each corruption case from March 2000 to May 2003; (2) Standard errors clustered at the municipal level in parentheses; \*\*\*:  $p < 0.01$ . \*\*:  $p < 0.05$ . \*:  $p < 0.1$ ; (3) Estimation method: Maximum Likelihood; (4) Municipality controls: see Table 2.

Table A.7.: Press Coverage and Political Alignment -- PP and PSOE governments

	Zero-inflated Poisson			
	(1)	(2)	(3)	(4)
<i>Editorial vs. Mayor alignment</i>	-0.512 (0.139)**	---	-0.562 (0.118)**	-0.641 (0.322)**
<i>Mayor vs. President alignment</i>	---	-0.925 (0.260)**	-0.853 (0.239)**	-0.894 (0.287)**
<i>Editorial vs. Mayor al. x Mayor vs. President al.</i>	---	---	---	0.103 (0.411)
<i>Newspaper fixed-effects</i>	YES	YES	YES	YES
<i>Scandal fixed-effects</i>	YES	NO	NO	NO
<i>Municipality controls</i>	NO	YES	YES	YES
<i>Observations</i>	1,544	1,544	1,544	1,544
<i>Number of newspapers</i>	36	36	36	36
<i>Number of scandals</i>	152	152	152	152
<i>Number of municipalities</i>	83	83	83	83

Notes: (1) Dependent variable: count of news published by newspaper on each corruption case from March 2004 to May 2007; (2) Standard errors clustered at the municipal level in parentheses; \*\*\*:  $p < 0.01$ . \*\*:  $p < 0.05$ . \*:  $p < 0.1$ ; (3) Estimation method: Maximum Likelihood; (4) Municipality controls: see Table 2.

## Chapter 5

### Concluding Remarks

Corruption constitutes one of the main blights on most democratic societies, not just affecting economic outcomes (see Mauro, 1995; Lambsdorff, 2006; Hillman, 2004) but also harming the faith of citizens in the satisfactory functioning of the fundamental pillars of their society. The aim of this dissertation is to analyse different aspects of the political economy of local corruption, focusing on the effects of the availability of information on scandals on electoral outcomes (considered in Chapters 2 and 3) and the media coverage of those corruption cases (studied in Chapter 4). Thus, the three studies that constitute this dissertation examine how free elections with party-based competition, an independent judiciary, and press freedom may hinder the ability of corrupt governments to remain in power.

The three chapters presented are based on data for Spain, a democratic society that has experienced a recent upsurge in local corruption scandals. Our main findings reveal that voters punish the perpetrators of local corruption scandals at the polls. However, factors such as the persistence of corruption or biased media coverage of scandals may decrease the efficiency of elections as an accountability tool. The following lines summarize the findings of each chapter, discussing their implications and contributions to the literature.

In terms of the impact that scandal information has on the affected incumbent's votes, Chapter 2 verifies that corruption is more electorally punished than is commonly believed. Overcoming endogeneity issues that affected previous studies, our analysis demonstrates that Spanish mayors involved in corruption scandals lose an average of 4% of vote share at the 2007 local elections, a result highly sensitive to factors such as the intensiveness of media coverage and the intervention of the judiciary. The effect for those cases that received wide attention by the media increase up to



9%, and where the judiciary initiated an investigation or the incumbent was prosecuted the vote loss rose to 14%. Hence, our results verify the effect of the media and the judiciary as complementary institutions to fight against corruption.

Thus, results reported in Chapter 2 seem to ratify that citizens electorally punish known scandals if they have abundant information about them, confirming the accountability function of elections. However, our results also indicate that all too often these effects are not big enough to be a threat to the re-election of corrupt mayors.

Before agree with the belief that Spanish citizens are tolerant to scandals, not largely voting against them bringing down accused governments, we wanted to examine if corruption cases could have broader effects on electoral outcomes beside the incumbent's vote share. Chapter 3 analyses how local corruption scandals may modify voter turnout at the 2007 local elections, either by mobilising citizens to go to the polls or by fostering voter disaffection. Our study reveals that an episode of local corruption means citizens are, on average, 1.5% less likely to vote. This implies that the disaffection effect of scandals predominates over that of mobilization. Chapter 3 is the first study, to the best of our knowledge, which empirically analyses how these two effects are influenced by partisan leanings or the timing of corruption. We find that core supporters, defined as those citizens who always vote for the same party, do not seem to react to corruption scandals, irrespective of whether they support the incumbent party or the opposition. Our results show that corruption only affects the participation of independent voters, defined as those individuals without strong partisan leanings. In municipalities that have experienced repeated corruption cases independent voters will experience a 6.3% fall in their likelihood of voting.

Hence, considering both the incumbent's vote loss shown in Chapter 2 and the fall in voter turnout shown in Chapter 3, we can confirm that the actual impact of corruption on electoral outcomes is much higher than is currently believed. That allows us to reinterpret earlier conclusions reported in the literature that attribute the absence of any notable electoral punishment of corruption to cultural explanations. An interesting result obtained in Chapter 3 is that an incumbent's core supporters do not recognise corruption within their party, and do not report higher corruption perceptions in response to a scandal. That may imply that individuals are more tolerant of an incumbent's

malfesance if they share the same ideology. However, it could also be a sign that citizens are informed about political issues by highly politicised channels.

Media outlets constitute one of the main information sources for citizens, and their impartial coverage of scandals, regardless of the political party involved, is essential to guarantee individuals' knowledge of corruption and hence their capacity to keep politicians accountable. The results in Chapter 4 call into question the ability of media outlets to provide voters with trustworthy coverage of scandals. Newspapers face political incentives to report biased information, either because of their own ideological slant or because of government pressure to capture media to reduce the amount of damaging news. Our results show that from March 2004 to May 2007 newspapers ideologically aligned with local parties involved in corruption will publish almost half of the news on those scandals than unaligned newspapers. The effect on the reduction of news is even higher when capture exerted by the government is taken into consideration. Media outlets will dedicate 52% less coverage to those scandals where the mayor's party involved in the corruption case is the same as the party of the president at the regional level. Hence, we find evidence that incumbent regional governments influence the press. From our results it seems that when analysing media bias on the coverage of corruption scandals, the effect of the capture exerted by the government prevails over the newspapers' ideological slant. That result, together with the evidence that we find that demand-side causes of ideological slant are not relevant in our context, differ from previous studies on media bias mainly applied to the US market of news (i.e., Puglisi and Snyder (2011) or Gentzkow and Shapiro (2010)). The specific traits of the media market in Spain could be behind these differences. Thus, our study provides new evidence on how media bias is explained by political factors in different markets than the US.

This thesis provides several contributions to the literature on local corruption. First of all, it constitutes a detailed analysis of the electoral effects of local corruption scandals in terms of both incumbents' vote share and voter turnout. It addresses the endogeneity created by the popularity effect of corrupt governments in office, whose omission leads to inaccurate estimation of scandals' impact. We are also able to distinguish between the 'mobilisation' and 'disaffection' effects that corruption may have on voter turnout, identifying how different individuals react to scandals. Finally, examining how the degree of attention that media devote to each scandal affects electoral

accountability, we consider whether newspapers have a political incentive to bias the coverage of local corruption cases.

Since all these findings have been obtained using Spanish data some caution is needed in the external validity of the results. The spectacular boom in the housing market generated a significant rise in local corruption scandals, largely unveiled by media outlets. The intensive reporting of corruption cases was performed in the context of a highly concentrated and politicised media market. However, we also consider that the results could be applied to other countries. Spain constitutes a well-established democratic system, where corruption does not represent an endemic problem since few local cases were reported in the news during the first two decades of democracy (1979-1999). Also, the Spanish polarised and pluralist mass media system is common to all Mediterranean countries (Hallin and Mancini, 2004). Taking all that into account, we consider that this study provides quite a broad picture of how citizens react to corruption during elections, and how media outlets play a key role in ensuring the electoral accountability of political representatives.

The three studies included in this dissertation reflect a scenario in which different factors represent hurdles for electoral accountability in corruption scandals. First and foremost, the biased provision of information by the media does not allow citizens to be accurately informed about their political representatives' behaviour. If they do not have reliable information on their government's illicit activities, they will not be able to punish corrupt politicians in elections. Also, the fact that political scandals seem to persist over time, regardless of the government in office, erodes citizens' faith in the capacity of the democratic system to keep politicians accountable. As a consequence, politically alienated individuals stop making use of democratic tools such as elections. Spain offers a context wherein the existence of a highly politicised media sector and a strong degree of partisanship among citizens make it easier for corrupt local politicians to stay in power. Both factors could be a consequence of a political system dominated by strong parties, a typical feature of the Spanish system.

Nevertheless, this thesis provides strong evidence that, even under a biased provision of news, Spanish voters are willing to electorally punish corrupt practices. Together with the significant number of cases recently unveiled by media and investigations undertaken by individuals or citizens' organizations through different digital platforms, we can be optimistic about the evaluation of practices to control corruption. The promotion of policies that endorse

media freedom and independence would also reduce the influence of political powers on Spanish media. Taken together, these factors would have a clear positive effect on electoral accountability, allowing citizens to obtain the impartial information they need to use elections as a way to constrain corrupt practices.

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