Can electors combat corruption? Institutional arrangements and citizen behaviour

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Abstract. Studies interested in the cross-national levels of corruption have concluded that specific institutional characteristics drive the aggregate variation. In countries with high institutional clarity and plurality electoral systems, corruption tends to be lower since increased voter monitoring and clarity of responsibility incentivise politicians to deliver virtuous policies. However, the underlying accountability mechanism has never been tested at the individual level. It is still unclear whether (1) voters do place voting weights on corruption, and (2) whether these weights vary in response to aggregate institutional characteristics. In this article, survey data from 23 democracies is used to put the accountability micro-mechanism to this test. While there is some evidence that voters do vote on the basis of corruption, the moderating effect of institutional characteristics is not as strong as previously thought.

Keywords: corruption; voting; clarity of responsibility; elections

Introduction

According to recent research, aggregate variation in cross-country corruption levels is related to institutional characteristics and, more specifically, to clarity of responsibility (see Tavits 2007). The argument here is that different institutional arrangements (e.g., constitutional arrangements or the electoral formula) provide differential incentives and opportunities to elites to engage in corrupt behaviour and extract rents. Similarly, it provides differential opportunities and incentives to both opposition parties and individual voters to monitor and sanction corrupt behaviour (Charron 2011). Because accountability is intensified in high-clarity systems, politicians face more incentives to deliver virtuous policies and policies that combat corruption. The original argument comes from the political economy of public support literature (Powell & Whitten 1993; Anderson 2000; Powell 2000; see also Hobolt et al. 2013) and it underscores the importance of political institutions as drivers of quality of government.

With just a few exceptions (e.g., Tverdova 2011), research has only examined variation at the aggregate levels of corruption, thus neglecting the underlying accountability micro-mechanism. In this article, we investigate the extent to which voters decide on the basis of corruption and, most importantly, whether institutional characteristics condition the effect of corruption on the probability of voting for the incumbent government. This is the first study, at least to our knowledge, that uses individual-level data in a comparative research design and seeks to test the micro-level mechanism.

Our test for the actual causal mechanism does not fully comply with the empirical results reported in aggregate studies of corruption. We do observe that corruption is a potential

determinant of vote choice, but we only find a small number of contextual characteristics that condition the relationship. While we find that corruption perceptions are primed as an influence on the vote in elections with a long-running chief executive, we fail to demonstrate a robust conditional effect for several institutional arrangements (outcomes). We thus fail to convincingly confirm the conditional impact of government majority status that is considered a principal characteristic in the clarity of responsibility index (Powell 2000), as the effect there is minimal at best. Although we see that corruption voting is significant in more compact party systems, the size of the corruption vote is not statistically different from polities with a much larger effective number of parties. Even in the case of the electoral system, the corresponding conditional effect is not robust and is probably driven by cabinet duration. We further show that the moderating effect of institutions and clarity of responsibility characteristics is minimal or even non-existent in cases where corruption has not been politicised (i.e., primed) in the campaign discourse. More generally, our findings highlight the limited role of formal institutions in tempering corruption (at least through voting) and illuminate the importance of transparency-enhancing policies and practices.

The article is organised as follows. We first provide a summary of the research done on corruption and we motivate the scope of our analyses. We then proceed to describe the contextual features that prime corruption voting and briefly set out the data used to test our hypotheses. Our presentation of the empirical results is followed by some concluding remarks.

Democratic accountability and corruption

Much like the case of economic voting, we consider corruption voting as a *product of the evaluation of the incumbent from the part of the voter (as regards corruption) and a corresponding choice come election day (punish or reward)*.[1] The premise of this article is related to an observation that is often cited to underline the apparent difficulty of liberal democracy to combat corruption through elections (Manzetti & Wilson 2007). Political accountability is a principal component of the democratic system, and in the case of corruption the ability of voters to hold politicians accountable for misconduct (or their negligence to halt public sector corruption) is of crucial importance. Evidence suggests that this is not always the case: corruption allegations do not always hurt re-election prospects and any vote losses can still be quite modest (Chang et al. 2010; Costas-Perez et al. 2012; Reed 1999; Peters & Welch 1980; Welch & Hibbing 1997; Dimock & Jacobson 1995; but see Ferraz & Finan 2008). This is a robust finding in a diverse set of cases spanning countries like the United States, the United Kingdom, Italy and Spain (Dimock & Jacobson 1995; Rundquist et al. 1977; Eggers & Fisher 2011; Reed 1999; Chang et al. 2010; for a review, see Muñoz et al. 2012 and Anduiza et al. 2013).

The problem of accountability in representative democracies has been described in various models as an agency problem (see, e.g., Groenendijk 1997; cf. Persson et al. 2013). Agents (politicians) are selected to deliver virtuous policies and oppose vicious 'practices' and principals (voters) are supposed to monitor this process and hold agents to account; voters re-elect them if they delivered and they vote them out if they did not. In this process the moderating factor of a robust accountability mechanism is the quality and clarity of the monitoring opportunities. The monitoring process itself is based on different sets of factors

that relate to the ambiguity or the clarity of information regarding corruption for any given voter in any given context.

First, at the constitutional level, the number of veto points seems to be relevant. Presidential and federal systems with high institutional competition tend to constrain corruption and provide fewer opportunities for rent extraction (see Persson & Tabellini 2003; cf. Kunicová & Rose-Ackerman 2005). Another stream of research originates in a classic (albeit empirically refuted) formulation by Myerson (1993) and mainly focuses on the electoral system and its implications: corruption should thrive in two-party systems (single-member district (SMD) systems) and should become easier to combat as more (and new) parties contest elections (proportional representation (PR) systems). Subsequent tests show that the data do not fit the theory. The short story and the prevailing finding is that majoritarian systems provide more constraints on corruption as compared to PR systems (Kunicová & Rose-Ackerman 2005). Monitoring difficulties for both voters and political opponents are greater in PR systems as collective action problems for the aforementioned groups are more likely in those settings (Kunicová & Rose-Ackerman 2005: 597). More nuanced approaches fine-tune this argument by focusing on additional institutional characteristics like district magnitude, electoral formula or ballot structure (Charron 2011; Chang 2005; Chang & Golden 2007). Ultimately, wherever the actual mechanism rests (either on the side of the voters or the side of the elites), the main assumption is that voters take their evaluations about corruption into the polling booth and vote accordingly. Increased accountability should, therefore, lead to more compliant behaviour on the part of the agent (i.e., less corruption).

However, as others point out, the various monitoring opportunities cannot rest solely on constitutional arrangements (Tavits 2007: 219). Theoretical arguments based on such factors provide less robust theoretical predictions regarding the relationship between institutional context and levels of corruption. Tavits (2007) argues that 'clarity of responsibility' is the feature of a party system that one should focus on when exploring how variation in monitoring opportunities is related to variations in corruption levels. The formal institutional structure of the party system might limit the full range of accountability-enhancing features available to the voters and, as such, the opportunities for monitoring and control will also be influenced.

Given that context conditionality was originally applied to economic voting, the classic formulation of 'clarity of responsibility' states that in understanding variation in the size of economic voting across countries one needs to pay attention to how blurred or clear the lines between government and opposition are regarding their influence on policy outputs and, more specifically, on economic policy:

> If the legislative rules, the political control of different institutions, and the lack of cohesion of the government all encourage more influence for the political opposition, voters will be less likely to punish the government for poor performance of the economy. Responsibility for the performance will simply be less clear. (Powell & Whitten 1993: 393)

Therefore, on top of institutional and constitutional arrangements, we consider here a host of additional institution-related outcomes that could influence accountability voting.

Following Powell and Whitten (1993) and Tavits (2007), we focus mainly on majority status of government, cabinet duration and the degree of party system fragmentation in order to test the clarity of responsibility argument. According to Powell (2000), the main indicator of clarity of responsibility is the degree to which one party has control of both the executive and legislative branches of the government. Minority governments (i.e., those with control only over the executive) represent the lower clarity setting since executives in this case cannot initiate and enact legislation without the support of other parliamentary parties. Various coalition governments (i.e., those with shared control of both the executive and legislature), finally, fall somewhere in the middle of the clarity scale.

The size and fragmentation of the party system is also relevant. Previous research has suggested that a fragmented party system might not facilitate punishment or reward at the polls. The issue here is not so much about 'retrospective' but 'prospective' clarity of responsibility. In other words, while identifying the 'culprit' might not present any difficulty, the accountability mechanism will not be effective if voters cannot identify an equally clear and potentially viable alternative – what Lewis-Beck (1986, 1988) has termed 'incumbent alternatives for dissent' (see also Anderson 2000). In multiparty systems where there is high uncertainty about the likely post-election winning coalition, voters face the risk that punishment at the polls will be offset if members of the incumbent coalition still find their way in the new government (Lewis-Beck 1986, 1988; Anderson 2000; Tavits 2007). The above theories can be put to test if one simply combines micro-level data on perceptions of corruption and vote choice and merge them with macro-level institutional and constitutional characteristics.

We further argue that a short-lived government could not prime voter perceptions of political corruption – at least not to the extent that a government with a lengthy tenure in office would. Cabinet duration is, therefore, another obvious way through which voters can filter information and hold incumbents accountable for corruption. Note here that this prediction is not concerned with how government duration might be related to corruption levels. Quick succession of governments in power might provide more incentives for elites to engage in corrupt activities and, in the long run, increase the overall levels of corruption. But as far as voter information is concerned, using corruption as a yardstick for their choice might not be achievable. Corruption is primarily systemic, but often voters think of the current governments as responsible for the levels of corruption or transparency. When a party is in office for say three terms (or 12 years), it is clear that voters will assign their full blame on the government. The distribution of responsibility is not that clear when a government has only a four-year tenure. So it is the diffusion of responsibility along with political power that is important here and not only constitutional rules. We expect that the longer a party is in office, the larger the impact of corruption on voting decisions.[2]

Data

Module 2 of the Comparative Study of Electoral Systems (CSES) is the core database used in this analysis. CSES module 2 compiles 40 post election surveys in 38 countries. For the purposes of this article we only focus on parliamentary democracies. This, and a combination of other data limitations, limits the sample of available election studies to 23 (see Appendix Table A for a list of countries and election studies). The CSES provides
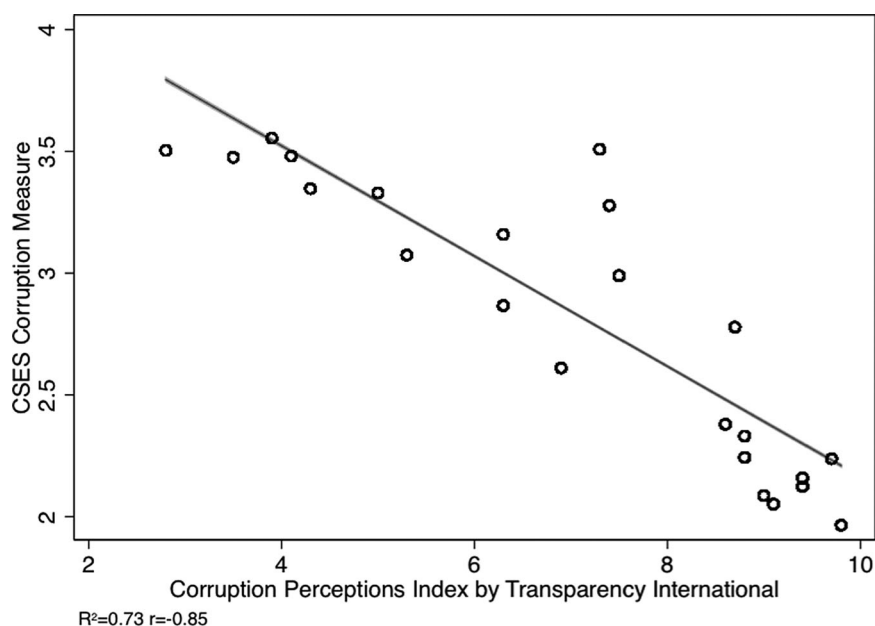
Figure 1. The relationship between CPI and CSES measures of corruption.

the main level 1 variables used in the voting models: a dichotomous dependent variable that measures incumbent voting; and the key independent variable of perceptions about corruption. The dependent variable is scored as 1 if the party the respondent has voted for was in government during the previous parliamentary term, and 0 otherwise. Non-voters are excluded from the analyses.

The survey question on which the main independent variable is based measures, on a four-point scale, answers to the question '*How widespread do you think corruption such as bribe taking amongst politicians is in [country]: 1. it hardly happens at all, 2. not very widespread, 3. quite widespread, 4. very widespread?*' (for a review of these data, see Holmberg 2009). This survey question admittedly captures a limited part of the picture as regards corruption levels. Clearly, other conceptual dimensions of corruption, such as bribes in the public sector, might not be captured and individual experiences of corruption may also be neglected. Much like egocentric and sociotropic economic voting, corruption might be primed for voters only in cases where they have been personally and directly affected by corrupt activity (e.g., having to pay bribes to public officials). However, we believe that this survey item captures important variation in voters' perception about corruption and it seems to be highly correlated with aggregate measures like the Corruption Perception Index published annually by Transparency International ($r = -0.85$). Figure 1 plots the relationship between the two measures. In the empirical analyses to follow, the CPI will also feature in the model specification.

Notice that the CPI has the reverse coding and the negative slope affirms the direction of the relationship. More importantly, Figure 1 lends additional credibility to our empirical exercise because the CPI is the measure used in most studies of aggregate corruption. By using a similar, highly correlated in the aggregate, measure, we are able to extract important

information about individual-level behaviour and thus effectively test the micro-mechanism that allegedly drives cross-national variation in corruption.

At this point it is important to note an important empirical concern related to our pivotal explanatory variable. As with most government performance indicators, the estimates on our perceptions of corruption measure are likely to be plagued with endogeneity. In order to partially address this, we include government performance (higher values in this variable indicate 'a very bad job') and ideological distance between voters and the government (in the case of coalition governments the mean placement of all coalition partners is considered the government's position on the left-right) in the model specification. Still, as in most observational analyses of political behaviour, it is difficult to have a sound identification strategy.

For some of the systemic variables we rely on the Database of Political Institutions (DPI) compiled by Beck et al. (2001; updated through 2010), along with publications from the Inter-Parliamentary Union. A combination of the seats in parliament for the government and the number of parties in government gives the measure of majority status. This is scored as 30 for minority governments, 60 for coalition governments and 100 for one-party majority governments.[3] Time in government for the chief executive gives the indicator for the cabinet duration. The rule of thumb has been that when a new party enters a government coalition, even if the prime minister stays the same, the cabinet duration variable starts again from zero (note that alternative classifications sensitive to these issues leave results unchanged). For the party system fragmentation variable we relied on Gallagher and Mitchell (2008) on the effective number of electoral parties based on vote shares. We use the electoral rule that governs the allocation of the majority of house seats (proportional, mixed and plurality) to classify countries according to electoral system – a classification originally made by Holmberg (2011). The contextual variables and their summary statistics can be found in Appendix Table A.

Results

All models report results from multilevel logistic regressions with random intercepts. Estimating a pooled data model in the 23 election studies in our sample can lead to erroneous conclusions if there are unobserved differences between countries (Hsiao 2003; Greene 2007). Thus we estimate a random intercept model that takes into account country-specific effects to ensure that unobserved differences between countries are not driving key findings. This approach does deal with some of these potential problems with clustered data (see Arceneaux & Nickerson 2009).

The following equation presents the basic model specification:

$$\begin{aligned} \text{Incumbent vote} = {} & -b_1 \text{Corruption} + \text{(controls) (level 1)} \\ & + b_2 \text{Context (level 2)} \\ & - b_3 \text{Corruption*Context (cross} - \text{level)} \end{aligned} \quad (1)$$

Perceptions about how widespread corruption is are interacted with the four features of the political context described above. Once more, we expect perceptions of corruption to exert a negative effect on incumbent voting.

Table 1. Logit models of incumbent voting

	Equation 1	Equation 2	Equation 3	Equation 4
Government performance	−1.233*** (0.030)	−1.234*** (0.030)	−1.231*** (0.030)	−1.233*** (0.030)
Ideological distance	−0.395*** (0.010)	−0.394*** (0.010)	−0.394*** (0.010)	−0.395*** (0.010)
Perceived corruption	−0.017 (0.051)	−0.334*** (0.090)	0.110* (0.059)	0.036 (0.069)
CPI	0.027 (0.040)	0.040 (0.040)	0.055 (0.043)	0.029 (0.040)
GDP	0.079 (0.055)	0.082 (0.054)	0.090* (0.054)	0.094* (0.055)
Electoral system	0.283* (0.145)			
Electoral system*Corruption	−0.053* (0.030)			
EFNP		−0.205** (0.097)		
EFNP*Corruption		0.055*** (0.020)		
Cabinet duration			0.054 (0.051)	
Cabinet duration*Corruption			−0.038*** (0.010)	
Majority status				0.010** (0.005)
Majority status*Corruption				−0.002** (0.001)
Constant	2.971*** (0.364)	4.179*** (0.475)	2.874*** (0.370)	2.740*** (0.416)
N	22,712	22,712	22,712	22,712
Elections	23	23	23	23

Note: Standard errors in parenthesis. ***$p < 0.01$; **$p < 0.05$; *$p < 0.1$.

Table 1 reports results of four different models. In the first model the interaction is between perceptions of corruption and the electoral system, in the second model the interaction term is with party system fragmentation, in the third model with cabinet duration and in the fourth with majority status. All models control for the overall levels of corruption in the country using the CPI. One reason for including a global measure of corruption is that individual perceptions of corruption seem to interact negatively with corruption on a more general level (Dahlberg & Solevid 2013). We also control for economic conditions in terms of growth in gross domestic product (GDP) per capita through all models since we know that a healthy economy usually has a positive impact on the likelihood of supporting incumbent governments. Our first concern is whether perceptions of widespread corruption predict a lower probability of voting for the incumbent government. The results across all models suggest that higher values of the corruption measure predict a decline in the probability of incumbent voting.

Since we have interaction terms and logit coefficients we evaluate the results in response to the plots of our interaction terms. Figures 2–5 plot the marginal effect of corruption perceptions for the four interaction terms. Marginal effects and simulated confidence intervals below the zero value on the Y-axis denote corruption voting. Thus, more negative values signify higher levels of corruption voting. Figure 2 plots the effect of corruption
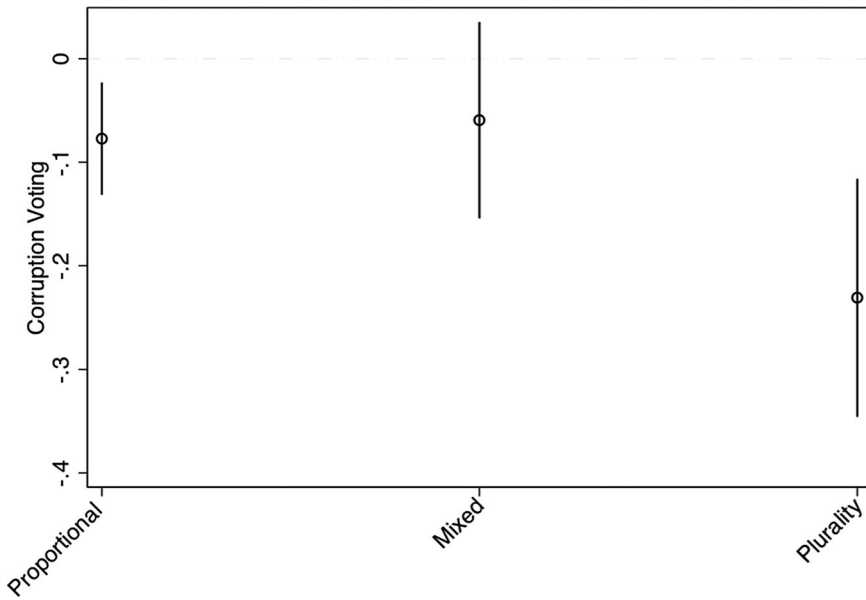
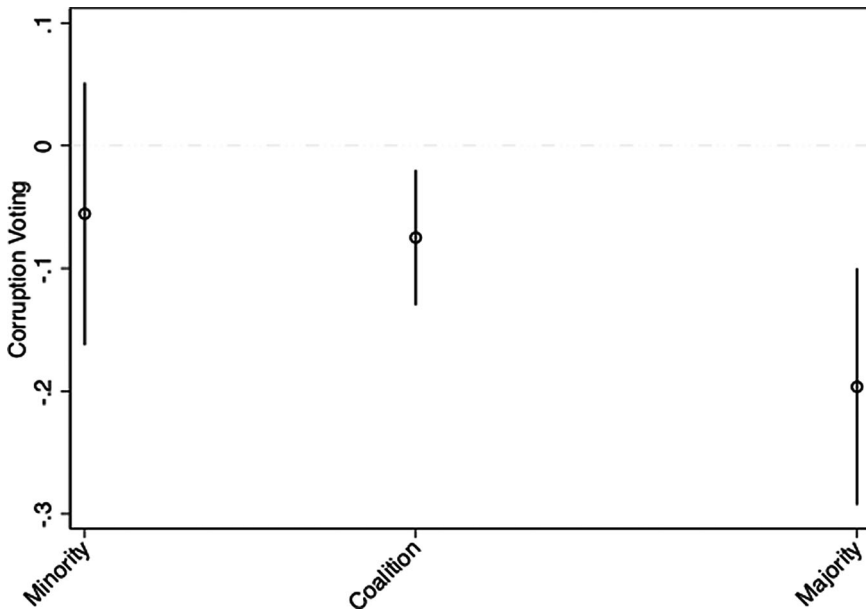*Figure 2.* Marginal effect of corruption perceptions over electoral system.

Figure 3. Marginal effect of corruption perceptions over majority status.

across different electoral systems.[4] As posited by our theory, plurality systems give more monitoring opportunities and corruption voting is discernibly larger for plurality electoral formulas. For mixed systems the effect is not different to consensual democracies. It should be noted that the classification of electoral systems is not always straightforward, and in this
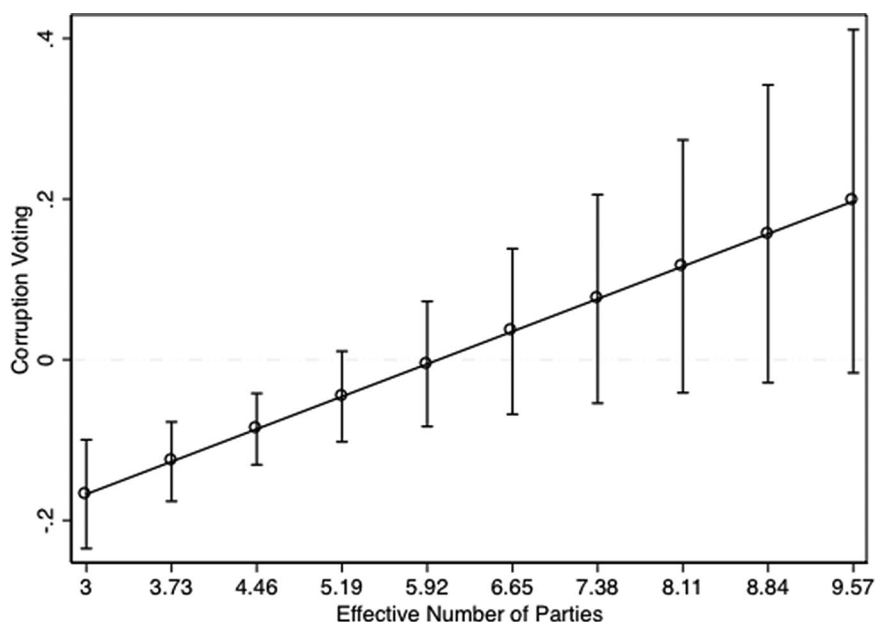
Figure 4. Marginal effect of corruption perceptions over effective number of parties.

respect we also specified a model that contrasts majority systems versus all the others and the results remain unchanged.[5]

Our second interaction between majority status and corruption is perhaps the most important considering its weight on aggregate levels of corruption (see Tavits 2007) and its pivotality in the clarity of responsibility index (Powell & Whitten 1993).[6] As a reminder, the theory posits that when a single party is in office and has control over the parliament, then citizens have a clear view as to who is responsible for political failure and success. In minority governments, at the other end of the scale, the prime minister's party does not have control of the parliament that enacts policy reforms. Hence, the attribution of blame is vague in such polities. Finally, in polities with coalition governments it is also unclear who is the responsible agent. Figure 3 visualises the effect of corruption perceptions for different values of our majority status variable with 95 per cent confidence intervals and reveals a largely negligible interaction effect. For minority governments the actual marginal effect is insignificant, whereas for coalition governments there appears to be more corruption voting. However, the 95 per cent confidence intervals are clearly overlapping with those in the case of majority governments.[7]

In Figure 4 the interaction is between corruption perceptions and the count measure of effective number of parties (EFNP). The X-axis runs from the minimum observed EFNP to the maximum at intervals of a standard deviation. The results suggest that in a system that has upwards of five effective parties, corruption perceptions do not seem to exert a significant effect on incumbent voting. In other words, although we find that for compact party systems there is some corruption voting, we cannot be confident that corruption voting decreases as the effective number of parties increases. In fact, the confidence intervals across the values on the X-axis seem to overlap.[8]
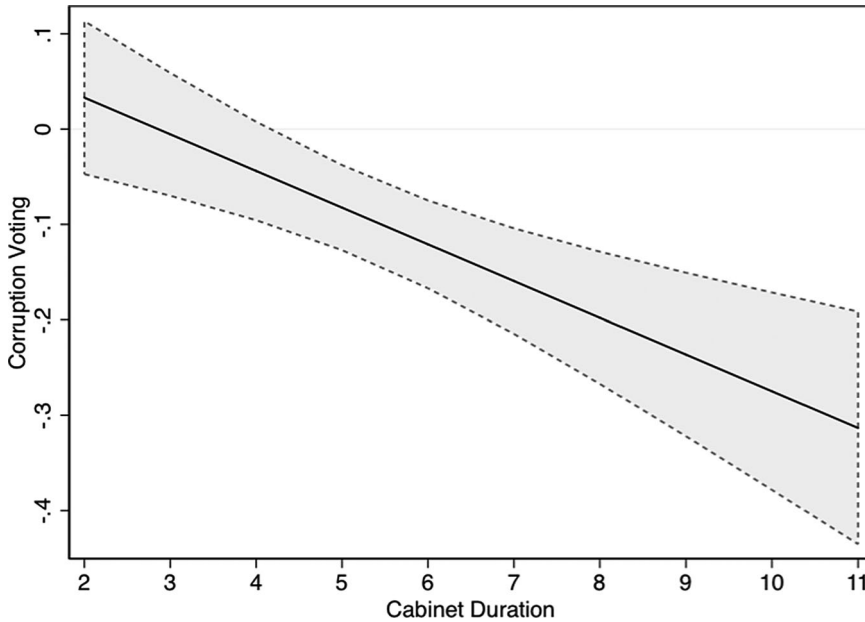
Figure 5. Marginal effect of corruption perceptions over cabinet duration.

In Figure 5, finally, we plot corruption voting conditional upon our cabinet duration variable. The graphing of the effect suggests that anything less than four years in government – or a single parliamentary term – is not enough for corruption perceptions to have a significant impact on voting for an incumbent, but as length of office tenure increases corruption seems to become more salient in voting decisions. Actually, this is the most robust finding of this study. When this interaction is included in the model specification, the moderating influence of the other institutional and constitutional characteristics is even less evident.

Although the visualisation of the conditional marginal effects are revealing, a more substantive interpretation in terms of predicted probabilities can further illuminate the patterns in the data. In order to estimate these predicted probabilities we set the random effects to zero and then calculate the predictions on the basis of the cross-level interactions. To assess the statistical significance of these probabilities (or lack thereof) and the size of corruption voting across contexts we use the cross-level interactions. In effect, we calculate the predicted probabilities for a corruption vote within context (e.g., within plurality systems) and then contrast the predicted probabilities with the equivalent quantities from the counterpart context (e.g., with PR democracies). The assessment of significance is based on the first difference in predicted probability across contexts.

Table 2 summarises the results from a series of simulations that depict changes in the predicted probabilities, intra and across systems. To ease interpretation, we recoded our corruption variable to measure 'high' and 'low' corruption perceptions. The first column in Table 2 reports the change in the probability of voting for the incumbent for those who think there is high corruption (compared to the low category). As it is clear, for systems with a PR formula the probability of an incumbent vote decreases by 1.5 per cent, for a mixed

Table 2. Predicted probabilities of incumbent voting across and within systems

Context	(1) Corruption vote high-low	Comparison of corruption vote across contexts	(2) ΔCorruption vote
Majority status			
Minority	0.007	Minority-Majority	–0.04*
Majority	–0.043*	Minority-Coalition	–0.02
Coalition	–0.019*	Coalition-Majority	–0.02
Electoral system			
Mixed	–0.004*	Mixed-Plurality	–0.04*
Proportional	–0.015*	Mixed-Proportional	–0.01
Plurality	–0.051*	Proportional-Plurality	–0.03*

Note: *p < 0.1.

system 0.4 per cent and 5.1 per cent for systems with plurality voting rules, with the latter two being statistically significant. For single-party governments the effect is 4.2 per cent, whereas the effect for polities with coalition cabinets is reduced to 1.9 per cent. For minority governments, finally, the equivalent change is not distinguishable from zero at the 95 per cent level.

To assess the robustness of the marginal effects plotted in Figures 2 and 3 we formally test whether the changes in these probabilities are statistically distinguishable across contexts. The differences in the changes in probabilities are reported in the second column of Table 2. For our majority status variable only the difference between minority and single-party governments seems to be significant with a 4 per cent higher probability in voting for the incumbent. For the other two combinations the differences are not statistically different than zero. As in Figure 2, which plots the electoral system condition, corruption voting is higher in plurality systems.

What does that mean substantially regarding the effect of electoral system or majority status moderator variables? The predicted probabilities suggest that incumbents in high corruption countries (i.e., those countries where corruption perception is at 100 per cent – an unlikely case) would stand to lose an extra 3–4 per cent as a product of the majoritarian electoral system or the majority status of the incumbent. Actually, that percentage would range between 0 and 4 per cent depending on the level of corruption perception. We consider the upper level of this range (3–4 per cent) not to be substantial considering the level of corruption that would be required.[9]

Of course, we can easily think of cases where corruption can be primed as an issue and thus become an even more important consideration for voters across systems. In the next section we further assess the robustness of our modest institutional effects and examine how specific contextual conditions might alter our expectations.

Taking into account the corruption context

Whereas it is clear how the responsibility is distributed in a single-party government, in the case of coalition governments the assignment of credit and blame for corruption cannot
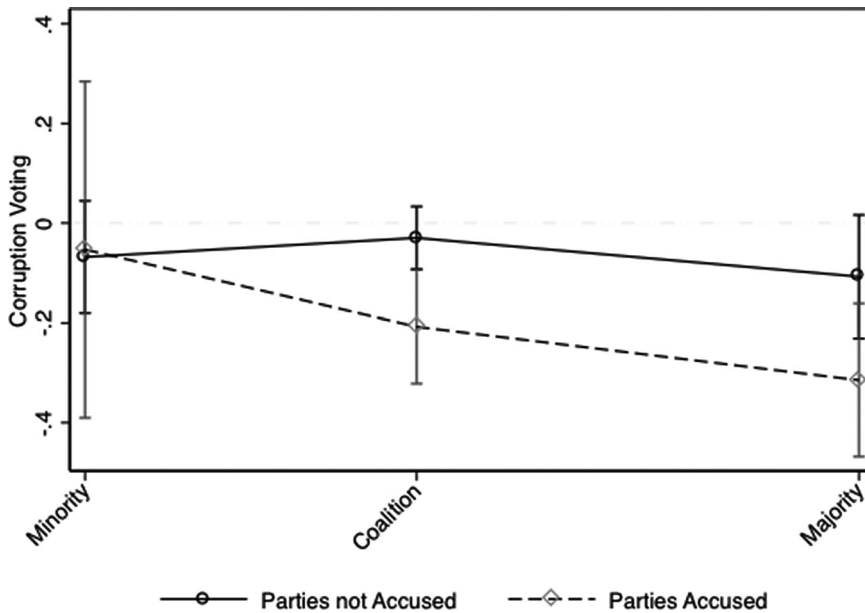
Figure 6. Corruption voting across majority status for incumbents with and without corruption allegations.

be uniform across incumbent parties. Corruption usually has a much clearer culprit (e.g., in the case of scandal) and relates to specific actors that belong to different parties. In the case of corruption, voters are likely to be able to distinguish between various shades or layers of responsibility and vote accordingly. If that is the case, treating governments as a unit could lead to erroneous conclusions since in a simple incumbent voting model the potential target for punishment or reward is not clearly identified.[10] Additionally, in contests where corruption is primed as an issue during the campaign we would expect some priming effects to take place during voting decisions (Bågenholm & Charron 2014). In other words, in election campaigns with a corruption scandal we might expect (a) a different size of the corruption vote and (b) different conditional effects across values of the majority status variable.

We tried to address this empirically. The first thing we did was to go through every single election report as published by the journal *Electoral Studies*. We found that six out of 23 cases had specific corruption allegations during the election (Bulgaria, Canada, Czech Republic, Hungary, Ireland and Israel). Yet it was virtually impossible to focus on cases where there have been coalition incumbents as these cases number only three. However, we can still examine whether the overall information context regarding corruption has any effect on the size of corruption voting.

To allow for the effect of corruption to vary across cases (and later parties) with and without allegations about corruption, we estimated interaction terms. The interaction terms allow the slopes to vary by groups and illuminate how campaign context (i.e., whether corruption was politicised) plays a role in the propensity to cast a corruption vote across contexts of minority, coalition or majority government. Figure 6 thus demonstrates the marginal effect of corruption across majority status in two different settings: in cases where

corruption allegations were an issue during the campaign; and in cases where they have not been. The results suggest that in cases where corruption was politicised in the campaign discourse corruption voting is marginally higher, but again it does not differ significantly along values of the majority status variable.[11] This, we believe, underlines the limited role of formal institutions in tempering corruption (at least through voting) and possibly illuminates the importance of transparency enhancing institutions.

Conclusion

Building on work done on institutional clarity and corruption (Tavits 2007; Kunicová & Rose-Ackerman 2005; Chang & Golden 2010; Charron 2011, Powell & Whitten 1993), we tested the micro-foundations of prominent accounts of aggregate corruption. We failed to fully confirm that corruption voting, that is the foundation of the macro relationship, is conditioned by institutional characteristics and clarity of responsibility. We only reported modest conditional relationships. More specifically, we find that when institutional rules favour a clear competition between two main parties (i.e., plurality effect), voters do place weights on corruption, but this is not statistically different from consensual systems. In terms of majority status, the results again do not indicate a meaningful conditional relationship. In other words, the size of the corruption vote is not markedly different across coalition, majority and minority governments. Similarly, the size of the corruption vote is not distinguishable across effective number of parties (note, however, that in more compact systems the effect is statistically significant). The only macro variable that exerts a considerable effect in the size of economic voting is cabinet duration. The effect of corruption on the vote is markedly larger when parties have served longer in office. Arguably, longer cabinet durations are primarily observed in plurality systems. When we test for the conditional effects simultaneously, cabinet duration is still an important condition whereas the electoral system plays no role whatsoever. These results appear to be robust to additional contextual variation (like scandals associated with one of the incumbent parties).

Institutions could matter for corruption, but our findings suggest that elections might not be the crucial mechanism through which to combat corruption. But to be fair, our test of that process is not equivalent to those attempted by Tavits (2007) and Chang and Golden (2007). They analyse corruption scores across almost 40 cases whereas our individual-level data comes from only 23 elections. Yet, again, there is no evidence, and perhaps no reason, to believe that it is voters who hold them to account. It could be that other formal institutions originally designed to tackle and monitor corruption hold elected politicians to account and this is why in some contexts corruption is lower than in others.

Several works suggest that good economic performance and inherent system failures such as clientelism are likely to temper the effect of corruption on government support (Manzetti & Wilson 2007; Zechmeister & Zizumbo-Colunga 2013). Although we control for economic conditions, we think that future research should examine cross-level interactions and examine their conditional relationship. Research also suggests that reward or punishment at the polls is not independent from the information that voters receive regarding governmental performance in general and corruption in particular (Chang et al. 2010; Costas-Perez et al. 2012). The role of the media is crucial at this point. When corruption is politicised, it can displace other issues from the political agenda and enhance what one

could call 'corruption accountability' (Konstantinidis & Xezonakis 2013; Chang et al. 2010). The findings in this article further substantiate these claims.

Relevant at this point is an argument put forward by Anderson and Tverdova in their research on how corruption shapes attitudes toward government (see Anderson & Tverdova 2003). Experimental evidence indeed confirms that partisans are less likely to even perceive and acknowledge corruption *per se*, while political information tends to temper the effects of partisan bias (Anduiza et al. 2013). Tverdova (2011: 8) also argues that partisans are more lenient when assessing the government's performance on corruption and can 'turn a blind eye to political malfeasance'. This will further 'dilute' corruption accountability and could potentially be an interesting avenue for further research in this area. In general, research questions about voter heterogeneity in corruption could illuminate patterns that are not visible in the full sample of voters (see Kosmidis & Xezonakis (2010) for an economic voting example).[12]

This article has caveats that have been noted throughout. More importantly, there is some concern about the validity of our CSES corruption measure. The fact that forms of corruption other than grand political corruption might not be captured and that personal experiences with corruption are not measured at all might constitute a problem for this research. If anything, we believe that this underestimates the magnitude of the effects that were uncovered here and it is not really likely to annul them. On top of that, we remain agnostic as to whether corruption perceptions refer to the national, international or local level. The case of the latter is the most intriguing as it is unclear whether voters diffuse responsibility from the local to the national level and what the role of local and national level partisanship of the government is. In other words, do voters punish corruption at the local level during national elections? Future research should definitely address this. In any case, the significance of corruption at the scale measured by this question is wholly relevant to voting behaviour and political accountability. Furthermore, the aggregate correlations between CSES and CPI – perhaps the most widely used measure of corruption – denote the relevance of our empirical strategy. Finally, an added caveat has to do with a possible omitted contextual variable: that of the possibility that a clear anti-corruption party is standing for election. This would certainly increase the politicisation of corruption with subsequent effects on voting behaviour (Klasnja et al. 2014; Bågenholm 2013).

Acknowledgements

Supporting Information

Additional Supporting Information may be found in the online version of this article at the publisher's web-site:

Appendix Table A: Descriptive statistics and additional information about system-level variables

Notes

1. In a recent publication, Klasnja et al. (2014) put forward an idea similar to the one presented here. They use a parallel with economic voting and the distinction between sociotropic and pocketbook voting, suggesting that personal experiences with corruption (pocketbook corruption voting) and perceptions of the prevalence of corruption (sociotropic corruption voting) are two distinct mechanisms through which corruption voting works. In that sense, this research is mostly concerned with what can account for variations across (and intra-) country in sociotropic corruption voting.

2. A general comment should be made here. Although we focus entirely on the national governments and how voters reward or punish them, it is clear that corruption not only appears at the national level. Corruption is quite evident at the local level (Charron et al. 2013), too. Although we think that governments are held responsible for all kinds of corruption (international, national and local), future research should focus more on the distinction between national and local corruption and particularly on whether voters are able to distinguish between the two in their voting calculi.

3. We follow Powell's (2000) and Tavits' (2007) distinction. Of course, there are no empirical consequences when we code majority status as 0, 1 and 2.

4. When calculating the marginal effects, we hold the remaining variables to their median values. Using the mean or some arbitrary value does not change our key findings.

5. These results are available from the authors upon request.

6. In the case of majority status, one could say that in terms of clarity of responsibility the issue is not so much whether there is a majority government, but whether there is a single-party or multiparty government. We have tested whether this differentiation between incumbents yields any significantly different results and found that this is indeed the case. However, with controls for cabinet duration and its interaction with corruption perceptions the single party*corruption interaction effect disappears. Cabinet duration has been the most robust of all responsibility conditions across our main and sensitivity analyses models. This suggests that years in government are probably more important for corruption voting than clarity gauged through single-party governments.

7. Note that the overlapping 95 per cent confidence intervals are not a sufficient condition to rule out statistical significance. We will return to this point later on.

8. The degree of fragmentation of the opposition might be more relevant in this case. We have therefore constructed a measure that reflects the 'effective number of opposition parties'. This was done by excluding the incumbent parties from the 'universe' of available alternatives and using again the Laakso and Taagepera formula to calculate the degree of fragmentation of the remaining party system. The results we obtained are practically identical to those reported in Table 1 and are available from the authors upon request.

9. In addition with the above considerations, a closer inspection of the mechanism would reveal that when cabinet duration and its respective interaction is included in the model specification (1) the electoral system effects vanish while (2) cabinet duration is still an important moderator for corruption voting. This suggests that in plurality formulas parties tend to stay longer in office and this, in turn, clarifies the attribution of the blame for corruption matters. As we argue, corruption is a very 'sticky' phenomenon that takes years to tackle and voters take this into their voting considerations.

10. We thank an anonymous reviewer for pointing this out.

11. As a robustness check we also estimated models using a polytomous dependent variable that is coded as 0 when a party is in opposition, 1 when in office but with no corruption accusations and 2 with specific corruption accusations. When corruption is not present in the campaign discourse, we find that corruption voting is robust only in cases where we have a long-run executive. Unless corruption is not politicised during the campaign none of the other clarity variables yield any significant results. The regression tables for both the random intercept multinomial, and the results corresponding to Figure 6, are available from the authors upon request.

12. Some preliminary analyses suggest that when compared to opposition and incumbent partisans, independent voters seem to place more weight on corruption. Depending on the electoral system, we find that the effect of corruption on the vote cancels out in majoritarian systems (positive effect for incumbent and equally negative effect for opposition partisans).

References

Anderson, C. (2000). Economic voting and political context: A comparative perspective. *Electoral Studies* 19(2–3): 151–170.

Anderson, C. & Tverdova, Y. (2003). Corruption, political allegiances and attitudes toward government in contemporary democracies. *American Journal of Political Science* 47(1): 91–109.

Anduiza, E., Gallego, A. & Munoz, J. (2013). Turning a blind eye: Experimental evidence of partisan bias in attitudes toward corruption. *Comparative Political Studies* 46(12): 1664–1692.

Arceneaux, K. & Nickerson, D. (2009). Modeling certainty with clustered data: A comparison of methods. *Political Analysis* 17(2): 177–190.

Bågenholm, A. (2013). The electoral fate and policy impact of 'anti-corruption parties' in Central and Eastern Europe. *Human Affairs* 23(2): 174–195.

Bågenholm, A. & Charron, N. (2014). Do politics in Europe benefit from politicising corruption? *West European Politics* 37(5): 903–931.

Beck, T. et al. (2001). New tools in comparative political economy: The database of political institutions. *World Bank Economic Review* 15(1): 165–176.

Chang, E. (2005). Electoral incentives for political corruption under open-list proportional representation. *Journal of Politics* 67(3): 716–730.

Chang, E. & Golden, M. (2007). Electoral systems, district magnitude and corruption. *British Journal of Political Science* 37(1): 115–137.

Chang, E., Golden, M. & Hill, S. (2010). Legislative malfeasance and political accountability. *World Politics* 62(2): 177–220.

Charron, N. (2011). Party systems, electoral systems and constraints on corruption. *Electoral Studies* 30(4): 595–606.

Charron, N., Lapuente, V. & Rothstein, B. (2013). *Quality of government and corruption from a European perspective: A comparative study of good government in European regions*. Cheltenham: Edward Elgar.

Costas-Perez, E., Sole-Olle, A. & Sorribas-Navarro, P. (2012). Corruption scandals, voter information and accountability. *European Journal of Political Economy* 28(4): 469–484.

Dahlberg, S. & Solevid, M. (2013). Does corruption suppress voter turnout? A multi-level approach. In S. Dahlberg, H. Oscarsson & L. Wängnerud (eds), *Stepping stones: Research on political representation, voting behavior and quality of government*. Gothenburg: University of Gothenburg.

Dimock, M. & Jacobson, G. (1995). Checks and choices: The House bank scandal's impact on voters in 1992. *Journal of Politics* 57(4): 1143–1159.

Eggers, A. & Fisher, A. (2011). Electoral Accountability and the UK Parliamentary Expenses Scandal: Did Voters Punish Corrupt MPs? Unpublished working paper.

Ferraz, C. & Finan, F. (2008). Exposing corrupt politicians: The effects of Brazil's publicly released audits on electoral outcomes. *Quarterly Journal of Economics* 123(2): 703–745.

Gallagher, M. & Mitchell, P. (2008). *The politics of electoral systems*. Oxford: Oxford University Press.

Greene, W. (2007). *Econometric analysis*. New York: Prentice Hall.

Groenendijk, N. (1997). A principal-agent model of corruption. *Crime, Law and Social Change* 27(3–4): 207–229.

Hobolt, S.B., Tilley, J. & Banducci, S.A. (2013). Clarity of responsibility: How government cohesion conditions performance voting. *European Journal of Political Research* 52(2): 164–187.

Holmberg, S. (2009). Perceptions of Corruption in Mass Public. Working Paper 24. Gothenburg: Quality of Government Institute.

Holmberg, S. (2011). *Feeling policy represented*. Gothenburg: Department of Political Science, University of Gothenburg.

Hsiao, C. (2003). *Analysis of panel data*. Cambridge: Cambridge University Press.

Klašnja, M., Tucker, J.A. & Deegan-Krause, K. (2014). Pocketbook vs sociotropic corruption voting. *British Journal of Political Science*. DOI:10.1017/S0007123414000088.

Konstantinidis, I. & Xezonakis, G. (2013). Sources of tolerance towards corrupted politicians in Greece: The role of trade-offs and individual benefits. *Crime, Law and Social Change* 60(5): 549–563.

Kosmidis, S. & Xezonakis, G. (2010). The undecided voters and the economy: Campaign heterogeneity in the 2005 British general election. *Electoral Studies* 29(4): 604–616.

Kunicová, J. & Rose-Ackerman, S. (2005). Electoral rules as constraints on corruption. *British Journal of Political Science* 35(4): 573–606.

Lewis-Beck, M.S. (1986). Comparative economic voting: Britain, France, Germany, Italy. *American Journal of Political Science* 30(2): 315–346.

Lewis-Beck, M.S. (1988). *Economics and elections: The major Western democracies*. Ann Arbor, MI: University of Michigan Press.

Manzetti, L. & Wilson, C.J. (2007). Why do corrupt governments maintain public support? *Comparative Political Studies* 40(8): 949–970.

Muñoz, J., Anduiza, E. & Gallego, A. (2012). Why Do Voters Forgive Corrupt Politicians? Unpublished manuscript.

Myerson, R.B. (1993). Effectiveness of electoral systems for reducing government corruption: A game-theoretic analysis. *Games and Economic Behavior* 5(1): 118–132.

Persson A., Rothstein, B. & Teorell, J. (2013). Why anticorruption reforms fail: Systemic corruption as a collective action problem. *Governance* 26(3): 449–471.

Persson, T. & Tabellini, G. (2003). *The economic effects of constitutions*. Cambridge, MA: MIT Press.

Peters, J.G. & Welch, S. (1980). The effects of charges of corruption on voting behavior in congressional elections. *American Political Science Review* 74(3): 697–708.

Powell, G.B. (2000). *Elections as instruments of democracy*. New Haven, CT: Yale University Press.

Powell, G.B. & Whitten, D.G. (1993). A cross- national analysis of economic voting: Taking account of the political context. *American Journal of Political Science* 37(2): 391–414.

Reed, S.R. (1999). Punishing corruption: The response of the Japanese electorate to scandals. In O. Feldman (ed.), *Political psychology in Japan: Behind the nails which sometimes stick out (and get hammered down)*. Commack, NY: Nova Science.

Rundquist, B.S., Strom, G. & Peters, J.G. (1977). Corrupt politicians and their electoral support: Some experimental observations. *American Political Science Review* 71(3): 954–963.

Tavits, M. (2007). Clarity of responsibility and corruption. *American Journal of Political Science* 51(1): 218–229.

Tverdova, Y.V. (2011). See no evil: Heterogeneity in public perception of corruption. *Canadian Journal of Political Science* 44(1): 1–25.

Welch, S. & Hibbing, J.R. (1997). The effects of charges of corruption on voting behavior in congressional elections, 1982–1990. *Journal of Politics* 9(1): 226–239.

Zechmeister, E. & Zizumbo-Colunga, D. (2013). The varying political toll of concerns about corruption in good versus bad economic times. *Comparative Political Studies* 46(10): 1190–1218.

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