

Clarity of Responsibility and Corruption

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This article demonstrates that political institutions influence the level of corruption via clarity of responsibility. The key hypothesis is that when political institutions provide high clarity of responsibility, politicians face incentives to pursue good policies and reduce corruption. These incentives are induced by the electorates' rejection of incumbents who do not provide satisfactory outcomes. However, if lines of responsibility are not clear, the ability of voters to evaluate and punish politicians—as well as to create incentives for performance—declines. The findings confirm that countries with institutions that allow for greater clarity of responsibility have lower levels of corruption.

Why are some democracies more corrupt than others? Answers to this question have been sought by looking at the level of democratization, socioeconomic development, and social cleavages.¹ However, the level of corruption also varies substantially within countries with similar economic and social characteristics and with similar levels of democratization. This observation has prompted recent research to consider political institutions as potential sources of divergent outcomes. Yet, as the theoretical claims and results of the existing studies are often contradictory, no consistent theoretical argument about the role of institutions in reducing corruption has emerged. Indeed, the existing research has provided us with only a limited understanding of this relationship by focusing on a few narrowly constructed variables like the electoral system, presidentialism, and federalism. Moreover, there is considerable theoretical confusion as to how any of these variables relates to levels of corruption.

The argument in this study is that political corruption depends on the effectiveness of the democratic process, i.e., the ability of voters to monitor their representatives, to detect those responsible for unsatisfactory outcomes, and to hold them accountable by voting them out of office. A democratic system is effective when the in-

stitutional system enhances clarity of responsibility for government performance. The concept of clarity of responsibility provides a coherent theoretical framework for analyzing the variance in the level of corruption and, importantly, allows for an unambiguous prediction. This is a significant improvement over previous studies. As explained below, presidentialism, decentralization, and majoritarian elections can plausibly be linked to the level of corruption either negatively or positively; clarity of responsibility can be expected to only decrease corruption. Thus, the purpose of this study is not necessarily to demonstrate that the indicators of clarity of responsibility are more powerfully associated with levels of corruption than the variables tested in previous studies but rather to test the empirical validity of the theoretical framework.

The empirical findings of the study confirm that governments tend to be less corrupt in countries where responsibility for government decisions and actions is clearer. The results of this study improve our understanding of why and how political institutions influence the level of corruption. The study also contributes to the literature on clarity of responsibility. It demonstrates that the concept helps to explain variance in government performance in general, rather than exclusively in the realm of economic policies.

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¹Gerring and Thacker (2004) provide an extensive overview and a list of references to previous studies on corruption.

The Effect of Political Institutions: Previous Literature

Several studies in both political science and economics have discussed the role of political accountability in relation to good governance including low levels of corruption (Alt and Lassen 2003; Ferejohn 1986; Lederman, Loayza, and Soares 2001; Persson, Roland, and Tabellini 1997; Rose-Ackerman 1999). By now, it is well established that the mere presence of competitive elections—a necessary condition for electoral accountability to function—is associated with less corruption (Diamond and Plattner 1993; Doig and Theobald 2000; Montinola and Jackman 2002; Treisman 2000). However, corruption levels also vary to a considerable degree within democracies. Thus, the more recent studies on causes of corruption have tried to explain these differences among democratic countries by looking at the effects of political institutions. Yet, the existing theoretical and empirical literature is contradictory, leading to conflicting claims about the mechanisms by which institutions influence the level of corruption.

The existing arguments relating institutions to corruption can be divided into two lines of reasoning. The first set of arguments mostly deals with the constitutional structure of a country. Some studies state that institutions that create a competitive environment in the provision of a public service tend to reduce corruption by decreasing the extraction of rents (Lederman, Loayza, and Soares 2001; Persson, Roland, and Tabellini 1997). Such a competitive environment is supposedly present in presidential and federalist countries (Fisman and Gatti 2002; Persson and Tabellini 2003). Others, however, argue that competition between different institutions does not reduce corruption. Rather, constitutional arrangements that produce fewer veto points or fewer institutions with overlapping mandates should be associated with lower levels of corruption by making it easier to monitor the performance of different institutions. Thus, parliamentarism and unitarism should reduce corruption (Gerring and Thacker 2004; Kunicova and Rose-Ackerman 2005).

The second line of arguments deals with the electoral system. Some scholars argue that electoral systems that generate incentives to cultivate personal votes—such as open-list proportional representation or majoritarian elections—lead to more corruption. More specifically, “the more personal votes a candidate needs to secure victory, the more likely he will be to seek illegal funds to finance the campaign and thus commit corruption” (Chang 2005, 718; see also Chang and Golden n.d.). A contrary argument states that the level of corruption is higher when there are no opportunities to punish corrupt

politicians, not when there is a potential for pork-barrel politics. Voting for individual candidates creates a link between individual performance and reelection (Persson, Tabellini, and Trebbi 2001). This, in turn, makes it easier for voters to identify corrupt politicians and punish them by withdrawing their vote in the next election (Kunicova and Rose-Ackerman 2005). Thus, personal vote generates incentives to avoid corruption. This proposition, like the opposing one above, is also supported by empirical evidence showing that countries with single-member district and open-list proportional electoral systems tend to have lower, not higher, levels of corruption (Kunicova and Rose-Ackerman 2005).

Both lines of argument share a common theme: the extent to which the specific institution under study helps voters to identify and later punish politicians responsible for poor government performance. However, both in the case of the constitutional structure and the electoral system this shared logic struggles against equally plausible alternative explanations. Given this, the merit of these explanations for understanding levels of corruption remains questionable. Furthermore, the existing empirical analyses have taken a very narrow approach to conceptualizing and testing the argument about the accountability-enhancing role of institutions in reducing corruption. Clearly, political institutions that help voters to identify those responsible for poor performance are more varied than just the constitutional structure of a country or the general electoral system that previous studies have limited themselves to. The emphasis has been on determining the effects of these specific variables rather than on testing the theoretical argument more broadly. A more encompassing conceptualization of institutions that help voters hold politicians accountable provides a more convincing and conclusive test of the theoretical mechanism by which institutions influence levels of corruption.

Clarity of Responsibility

This article uses a more advanced concept of an accountability-enhancing institutional structure that allows voters to monitor and sanction, via democratic channels, the performance of government. This concept, clarity of responsibility, has been developed in the literature on comparative politics of economy and elections (Anderson 2000; Bengtsson 2004; Kiewiet 2000; Nadeau, Niemi, and Yoshinaka 2002; Powell 2000; Powell and Whitten 1993; Royed, Leyden, and Borrelli 2000; Samuels 2004). The argument was first systematically developed and tested by Powell and Whitten (1993) in

relation to explaining cross-national differences in the extent of economic voting. Subsequent applications and extensions of the basic argument have remained in the field of economic voting and economic performance (Anderson 2000; Bengtsson 2004; Kiewiet 2000; Nadeau, Niemi, and Yoshinaka 2002; Royed, Leyden, and Borrelli 2000; Samuels 2004). However, the potential application of this argument is much broader. Powell (2000) has developed the concept of clarity of responsibility into an indicator that shows the extent to which institutions function as instruments of democracy, i.e., the degree to which they give the people influence over policymaking in general and not exclusively in the area of economic policy. Thus, applying the clarity of responsibility argument to government outputs more broadly helps to determine whether democratic institutions matter and how.

The underlying assumption of the clarity of responsibility argument is that at least some citizens consider government outputs, including corruption, to be an important element of their voting decision.² The idea is that voters prefer effective governments over ineffective ones and are therefore likely to punish government inefficiency by voting incumbents out of office. The extent to which voters exercise their sanctions is not merely due to “individual-level idiosyncrasy,” but will reflect the “coherence and control the government can exercise over policy” (Powell and Whitten 1993, 398). “The greater the perceived unified control of policymaking by the incumbent government, the more likely is the citizen to assign responsibility for economic and political outcomes to the incumbents” (Powell and Whitten 1993, 398). Thus, whether or not citizens are able to assign responsibility to the government depends on the extent to which those who are responsible can be identified (Powell 2000).

Low clarity of responsibility makes it easier for incumbent politicians to diffuse responsibility and blame those with whom they shared control of government. It also complicates gathering information about those

actually responsible for government outputs, regardless of whether politicians purposefully diffuse responsibility (Powell and Whitten 1993; Samuels 2004). For example, in the case of a coalition government, it is difficult for the voter to determine exactly which of the coalition partners is responsible for government outputs. There is no single incumbent whom voters could easily identify and punish. Unlike the case of majority governments, coalition partners can also blame each other for poor performance, exacerbating voters’ ability to identify those who are ultimately responsible. As we shall see below, responsibility can be diffused also by other institutional structures. In sum, a lack of clarity of responsibility should insulate incumbents from electoral accountability and, hence, foster the pursuit of inefficient policies.

The specific policies that voters can assign responsibility to extends across the whole range of government outputs (see Przeworski et al. 1999). One of these outputs is the extent of public sector corruption. In cross-national studies, corruption is understood as a “misuse of public office for private gain” (Kunicova and Rose-Ackerman 2005; Rose-Ackerman 1999; Treisman 2000; Sandholtz and Koetzle 2000). Following Gerring and Thacker (2004), political corruption includes both the misuse of public office as well as the acquiescence of such misuse. That is, politicians are responsible for not only their own corrupt activities but also for the failure to combat bureaucratic corruption. Following the arguments of clarity of responsibility, the more effective the mechanism of electoral accountability, the higher the incentives for politicians to combat corruption. Electoral accountability, in turn, can be enhanced by clarifying the lines of responsibility for government outputs. Thus, unless one believes that corruption is a desired outcome, clarity of responsibility should lead, through the mechanism described, to lower levels of corruption.³

In the short term, such an argument entails that voters punish a government for any increases in the perceived level of corruption compared to the level of corruption under the previous government. Indeed, voters may also punish governments for not reducing corruption from its previous level. Thus, the only certain way to avoid punishment, and to perhaps even be rewarded, is to ensure that corruption does not increase and to attempt

²Note that the tests below do not evaluate this assumption. Rather, the empirical part evaluates the predictions about the relationship between clarity of responsibility and corruption that can be made based on this assumption. Prediction evaluation is generally considered to be a tougher test of an argument because if the model says nothing useful even if its assumptions are right, then the model has little to recommend it (Cameron and Morton 2002). However, when an argument helps us to understand a phenomenon at hand even if its assumptions cannot be tested or are not entirely right, then it is still a useful argument. For example, consider the main field where the clarity of responsibility argument has been applied—economic voting. There is considerable controversy within the economic voting literature as to whether or to what extent the assumption of individual-level economic voting is actually accurate (Sears and Funk 1991; see also Lewis-Beck and Stegmaier 2000). However, this does not decrease the value of the aggregate-level economic voting arguments that help us understand vote-swings across elections.

³It is also possible that citizens choose not to punish corrupt behavior despite clarity of responsibility. This may, for example, occur when certain groups of citizens accrue personal benefits from government being corrupt. The desirability of corruption within a society renders the relationship proposed here insignificant. However, it is more likely that such desirability of corruption, if present, is restricted only to certain members or groups within the society. A closer investigation of the effect of such groups on the level of corruption requires a separate study.

to reduce it from current levels.⁴ Such short-term incentives have, in turn, implications for long-term national outcomes. Namely, clarity of responsibility captures institutional characteristics of a polity, i.e., some countries have systematically higher levels of clarity of responsibility than other countries. Given this and the expectations of short-term voter behavior, we would expect in the long term for there to be a systematic accumulation of rent-generating policies versus efficiency-enhancing ones in polities characterized by relatively low levels of clarity. Thus, in a cross-national context, given the credible threat of punishment in high-clarity countries, one would expect that the overall levels of corruption are kept low. In low-clarity countries, on the other hand, the threat of punishment is decreased due to supportive institutional structures, and the level of corruption is permitted to remain relatively high. In sum, countries with low clarity of responsibility should be systematically more corrupt than those with high clarity.

Indicators of Clarity of Responsibility

Previous studies of clarity of responsibility have identified a set of institutional factors that disperse power and, thus, diffuse responsibility. If the argument that clarity of responsibility and the possibility of holding politicians accountable are instrumental for reducing the level of rent extraction by politicians, then institutions that provide higher clarity of responsibility should be associated with reduced levels of corruption in a given country at a given time. Powell and Whitten (1993) and Powell (2000) operationalize clarity of responsibility by classifying systems into those where responsibility is clear and those where it is not based on factors such as one-party vs. multiparty rule, cabinet stability, opposition influence on the policymaking process, and party cohesion. Several later studies have supplemented this initial set of indicators with party system fragmentation (Anderson 2000; Bengtsson 2004; Nadeau, Niemi, and Yoshinaka 2002; Royed, Leyden, and Borrelli 2000).⁵

⁴The preliminary pooled cross-sectional time-series tests presented in Models 3 and 4 below suggest that such an incentive mechanism may be at work. The analyses demonstrate that the higher the clarity of responsibility the higher the decrease in the level of corruption from one electoral cycle to the next.

⁵Some studies have proposed also such indicators as electoral volatility and turnout (Bengtsson 2004) and the size of the largest party in government (Anderson 2000) to measure clarity of responsibility. However, the first two indicators do not form the core of the argument and lead to too much conceptual stretching, and the last indicator corresponds closely with the one-party vs. multiparty rule, which is why these additional indicators are not included in the current analysis.

All of the above factors are likely to impede or enhance voters' ability to assign responsibility for government performance (including corruption). Powell states that the "most important element in determining clarity of responsibility is the majority status of the government" (2000, 52). When a single party occupies the main offices of the executive branch and possesses control over a parliament that initiates and changes policies, citizens are provided with the maximum clarity of responsibility. At the other extreme, as Powell (2000) argues, are minority governments: a party holds the prime-ministership, but lacks the votes needed to control the legislature. The executive party crucially depends on the support of other parties in parliament in order to ratify laws. At the same time, parliamentary parties that do not belong to the executive are not identified to voters as policymakers—this makes it very difficult for the electorate to identify who is responsible for the decisions made (Powell and Whitten 1993). Different forms of coalition governments occupy an intermediate position as to how much clarity of responsibility they exhibit.

Further, cabinet duration also constitutes a plausible condition for responsibility: it should be easier to assess responsibility in a durable government than in a brief government (Powell 2000). When governments tend to be short-lived, politicians have less of an incentive to worry about their long-term reputation in office and may be more easily drawn to corrupt behavior or may be more likely to be ignorant of bureaucratic corruption. Clarity of responsibility can further be blurred by the extent to which opposition parties have an influence over policymaking. Opposition parties can diffuse responsibility through controlling a policymaking institution, such as one of the houses in a bicameral parliament, or holding important positions in legislative committees (Powell 2000, 63; Powell and Whitten 1993, 400).

Last but not least, Kernell (1997) concurs that multiparty systems undercut the use of the punishment-reward strategy. According to his argument it is not only important for the voters to easily identify those who are responsible for government performance, but it is also important to have clear alternatives available when voters seek to throw incumbents out of office. The presence of multiple opposition parties, however, produces a coordination problem for the voter in trying to decide which one of them to vote for (Kernell 1997). Anderson (2000) echoes this argument, although he provides a different reason for why party fragmentation reduces the ability of voters to hold governments accountable. According to his study, fragmented party systems should make it more difficult for voters to identify a clear alternative to the incumbent government. As the likely shape of future government will

be uncertain, some members of the existing governing coalition may also become members of the new coalition, making the punishment efforts meaningless (Lewis-Beck 1986, 1988).⁶

Data and Measurement

Powell and Whitten's (1993) original study and many of the later studies use the above indicators to form a simple twofold classification of countries as high or low clarity of responsibility. In order to determine the relevance of the clarity of responsibility argument, they run the analysis with the two sets of countries separately and see whether similar patterns of relationships emerge. Such an approach, however, cannot account for the variance in the extent of clarity of responsibility within both groups of countries and over time. More recent studies have expanded the measure by allowing more categories of clarity (Whitten and Palmer 1999), by creating an index of clarity (Nadeau, Niemi, and Yoshinaka 2002), and by allowing clarity of responsibility to take on different values in different elections (Nadeau, Niemi, and Yoshinaka 2002; Whitten and Palmer 1999). In this study, I will follow these more nuanced approaches.

It is important to note that the original argument of clarity of responsibility was developed exclusively for parliamentary systems. Furthermore, the existing studies of clarity of responsibility have been restricted to the advanced parliamentary democracies of Western Europe only. I have expanded the set of Western European countries to the parliamentary and semipresidential democracies of the OECD and Eastern Europe.⁷ Given that the study is focused on the effect of democratic institutions on the level of corruption, only democracies are included in the analysis. Freedom House scores of political rights and

civil liberties serve as indicators determining the suitability of countries for the analysis, which includes countries scoring "5" and lower on both indicators for the period since 1994 until 2004.⁸

The Dependent Variable

The two most widely accepted measures of corruption are provided by Transparency International (Corruption Perception Index) and the World Bank (the Governance Indicators) (Kaufman, Kaary, and Mastruzzi 2003).⁹ Both sources cover all countries considered in this study. Transparency International has yearly measures of perception of corruption from 1995 through 2004, but there is no information about all years for all countries. The dataset becomes most complete after 1998. The World Bank index has biannual data from 1996 through 2002 for most countries in the dataset.

There are several options available for choosing the unit of analysis. Most studies looking at the effects of clarity of responsibility have used country-election as the unit of analysis because the institutional variables tend to be, for the most part, constant between elections. Furthermore, measures of cross-national corruption are available annually or biannually for about a decade. Thus, to make the most of the available data, country-election would seem to be the most appropriate unit of analysis.

However, pooling the corruption measures across time is not an uncontroversial matter (Lancaster and Montinola 2001). Transparency International has stated that their corruption scores could be used for comparisons

⁶Although literature on clarity of responsibility has ignored it, there is also a counterargument to the negative effect of party system fragmentation. Myerson (1995) also argues that holding politicians accountable is more difficult the harder it is for voters to find good alternative candidates. His proposed logic, however, is different: Myerson (1993, 1995) assumes that interests among voters and candidates diverge along an ideological line. In this setting, voters' ability to hold officials accountable is decreased if voters sharing the same ideological preferences cannot find a good substitute, i.e., a party with a similar ideological position as the one they want to replace. Thus, the ability of voters to hold politicians accountable is better the greater the number of parties, because then the probability of having different parties of a similar ideological position is higher.

⁷There is no standard sample of countries for cross-national studies of corruption. The samples used in previous studies vary greatly and are sometimes restricted by the type of electoral system, level of development, or some other characteristic.

⁸The countries included in the analysis are Albania, Armenia, Australia, Austria, Belgium, Bulgaria, Canada, Croatia, the Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Latvia, Lithuania, Luxemburg, Moldova, Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Russia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Ukraine, and United Kingdom. Excluding some dubious cases, such as Armenia, Georgia, Albania, or semipresidential systems such as Russia and Ukraine does not alter the results.

⁹Both indexes include perceptions of political as well as bureaucratic corruption, thus serving as proxies with high-face validity for capturing the concept of corruption as defined here. One might, of course, argue against using measures that largely capture the perception of corruption rather than the actual incidents. Other sources present extensive debates about this issue (Gerring and Thacker 2004, 302–303; Kaufman, Kaari, and Mastruzzi 2003; Lambsdorff 2002; Lancaster and Montinola 2001); suffice it to say here that empirical cross-national studies of corruption have reached a consensus that perceived levels of corruption provide a reasonable approximation of the actual corruption and that generating more precise measures is feasible for studies of one country (e.g., the Chang 2005 analysis of Italy) but almost impossible to achieve in a broad cross-national context.

across time, although they warn that such comparisons can be misleading because of methodological changes between years (Lambsdorff 2002). The index designers, however, also note that the sources continue to show a high degree of correlation and that the results are largely invariant to the chosen methodology (Lambsdorff 2002). Other analysts have also noted that Transparency International country scores are “consistent across time” and that “time-series analysis may be feasible with the corruption data” if the index is consistently extended (Sandholtz and Gray 2003, 776).

Given that there seems to be a broader consensus about using cross-sectional rather than pooled measures of corruption, the main tests presented here use the average country scores of corruption across all years for which the data are available. An alternative analysis uses corruption scores averaged across one electoral cycle, i.e., across the three to four years between elections. Doing so allows the inclusion of two to three data points per country and performing preliminary dynamic tests of the argument. Given that corruption scores are so highly correlated across time, being able to show that clarity of responsibility matters for current corruption scores even when controlling for past corruption scores is a more stringent test of the argument. If the results hold regardless of the unit of analysis, we can be more confident in their robustness.

The analysis is performed using both the World Bank index (variable named *Corruption-WB*) and Transparency International index (variable named *Corruption-TI*) for the purposes of testing the robustness of the results. The original coding of both indices has been reversed so that a higher score indicates a higher level of corruption. For the countries included in the study, *Corruption-WB* ranges from -2.58 to 1.05 , while *Corruption-TI* has a range of 0 to 9.5 . The bivariate correlation between these measures is very high: $r = .985$.

Independent Variables

The measurement of the indicators of clarity of responsibility discussed above closely follows the previous studies and, as much as possible, uses the actual measures composed by the previous studies. In order to measure *Majority status* of governments in a given country, each minority government receives a score of 30, a coalition government receives a score of 60, and majority government is coded 100 (see Powell 2000, 56–57). Minority governments receive a lower score than coalition governments because under the former the opposition has greater influence on policymaking, which, in turn, blurs the responsibility for

outcomes (Powell 2000, 57; see also Laver and Hunt 1992; Lijphart 1999). The average of these scores, based on the number of governments that have existed in Eastern Europe since the first democratic election in a given country, and in the OECD since 1980, is used to capture the variable.¹⁰ Notice that this variable is time sensitive: every time a new government is formed, the score changes.

Cabinet duration is measured by the number of consecutive months a given government had been in office at the time of the election (Powell 2000). For each country, this number is then averaged across all governments since 1980 or the first democratic election, whichever is more recent. Thus, similar to the previous variable, *cabinet duration* is time sensitive.¹¹

Opposition influence combines the following indicators that show the extent to which a parliamentary structure allows an opposition to influence policymaking: the number of permanent committees (more than 10 committees diminishes clarity), whether the standing committees correspond to government departments (the less they correspond the lower the clarity), whether the positions of committee chairs are shared by all parties in parliament or only held by the government parties (the former case diminishes clarity), whether there is a limit to the number of committees a single parliamentarian can belong to (multiple membership blurs responsibility; see Powell 2000, 34–36, 63–64), and whether there is an upper chamber and whether that chamber is controlled by opposition parties (both blur responsibility; Powell 2000, 62). The combination of these variables gives a measure of opposition influence in parliament where high values indicate more influence.¹² Last, *Effective number of parties* captures the fragmentation of the party system and is coded from Golder (2005).

The four indicators¹³ are subsequently standardized, recoded so that high values indicate high clarity of responsibility, and averaged into a variable called *Clarity of responsibility*. Note that the indicators of clarity include information from years that precede corruption

¹⁰Information for coding this variable was obtained from a variety of sources, including Blondel and Müller-Rommel (2001), Müller and Strøm (2000), Müller-Rommel and Fettelschoss (2004), Powell (2000), Interparliamentary Union Parline Database, and various issues of the *Political Data Yearbook*.

¹¹Sources: Blondel and Müller-Rommel (2001); Müller and Strøm (2000).

¹²Sources: Interparliamentary Union Parline Database, websites of national parliaments.

¹³Powell includes also a measure of party cohesion. However, indicators of party cohesion that are based on party voting records in the legislators are available only for a handful of countries (2000, 60). Previous studies have excluded this measure routinely, an example that I am unfortunately forced to follow.

measures. The clarity scores change with every election and the election-specific scores are used in the analysis of the country-election sample. For the main cross-sectional tests the election-specific scores are averaged into a country-level indicator. Since the variable is standardized, its values are not directly interpretable. The actual values range from -1.08 (the lowest clarity) to 1.33 (the highest clarity). The United Kingdom, Canada, and Portugal—countries characterized by durable majority cabinets and where those responsible for policy outcomes are very identifiable—have the highest scores of clarity of responsibility. Clarity of responsibility is the lowest in Belgium and Italy—countries characterized by short-lived cabinets and many opportunities to influence policy without being in government. Several newer democracies of Eastern Europe such as Poland, Latvia, and Slovakia, characterized by many parties and frequent government reshuffles, also have relatively low levels of clarity of responsibility. Countries such as France, Hungary, and Germany occupy the middle category—all of these countries have some majoritarian characteristics but also exhibit opportunities for diffusing responsibility either via the high number of parties or the parliamentary structure.

Control Variables

In addition to clarity of responsibility, this analysis includes several control variables identified as potentially significant predictors of the level of corruption in previous cross-national studies. *Presidential power* is measured by Siaroff's (2003) coding of countries on a scale of 1–9. Countries not identified in Siaroff (2003), i.e., countries with no presidents or an equivalent, are coded "0." *Decentralization* is measured by whether or not a given country has autonomous regions, coded from Beck et al. (2001). This measurement also follows closely the measures used by earlier studies (Chang and Golden n.d.; Gerring and Thacker 2004; Treisman 2000). The extent to which an electoral system generates incentives to cultivate personal votes is another frequently used institutional measure in studies of corruption (Chang and Golden n.d.; Kunicova and Rose-Ackerman 2005; Persson, Tabellini, and Trebbi 2001). The variable *Personal vote* is coded "1" for countries that use either a majoritarian or an open-list proportional representation electoral system and "0" otherwise. *Mean district magnitude (MDM)* measures the average number of candidates elected from any district (Chang and Golden n.d.).¹⁴ This variable has a significantly skewed distribu-

tion with a few very high values. Thus, logged *MDM* rather than the raw variable is used in the analyses.¹⁵

In addition to these institutional variables, the analyses also include the level of economic development, measured by *GDP per capita*; the level of *Democratic development*, measured by a multiplicative index of the number of years since the first democratic election or since the first election with universal suffrage, whichever is the latest, and the reversed Freedom House score (i.e., a higher score denoting a higher level of democratic development) of political rights; *Protestantism*, measured by the share of protestants in the total population;¹⁶ *Ethnic heterogeneity*, measured by the Vanhanen index (Vanhanen 1999) that takes into account both the number of ethnic groups in society and their relative sizes; and an index measure of *Economic integration* combining the indicator of trade openness as a percent of GDP and the amount of foreign direct investments per capita (Sandholtz and Gray 2003).¹⁷ These are, by now, rather well-accepted control variables for a cross-national study of corruption (Chang and Golden n.d.; Gerring and Thacker 2004; Persson, Tabellini, and Trebbi 2001; Treisman 2000). Further, in order to account for any remaining regional effects, a dummy variable for West European democracies is also included.

Analysis

As explained above, I have run the analyses with two different sample sizes and two different dependent variables. The analysis of the cross-national sample uses ordinary

¹⁵The exclusion of pure presidential systems from the sample should not introduce any systematic bias to the effect of most of the institutional variables used in previous studies. Indeed, for all variables except *Presidential power* the variance in the current sample is comparable to the variance in presidential democracies. Even in the case of *Presidential power*, however, the variance in the current dataset is substantial: the values range from 0 to 7. The maximum recorded value for this variable is 8.

¹⁶Sources: Easterly and Sewadeh (2002), Przeworski et al. (1999), Treisman (2000), Freedom in the World available at <http://www.freedomhouse.org/>, CIA World Factbook available at <http://www.cia.gov/cia/publications/factbook/>.

¹⁷Both of these indicators are coded from the World Bank database of World Development Indicators. Sandholtz and Gray (2003) also estimate the effect of "international social integration" measured by membership and the length of membership in different international organizations. Preliminary analyses revealed that this measure was not significant in any of the models presented below and including it did not influence the performance of the variable measuring the clarity of responsibility. Given this and the concern with small sample size, this variable is excluded from the models reported below.

¹⁴The information for both *Personal vote* and *MDM* is coded from Beck et al. (2001).

TABLE 1 Regression Analysis of Clarity of Responsibility and the Level of Corruption

	Unit of analysis: Country		Unit of analysis: Country-election	
	Model 1 Corruption-WB b(robust SE)	Model 2 Corruption-TI b(robust SE)	Model 3 Corruption-WB b(PCSE)	Model 4 Corruption-TI b(PCSE)
Clarity of responsibility	-.222** (.122)	-.752** (.298)	-.040** (.020)	-.469** (.119)
Lag Corruption-WB			.719*** (.164)	
Lag Corruption-TI				.731*** (.068)
Democratic development	-.001* (.001)	-.006*** (.002)	-.0006*** (.0002)	-.003*** (.0004)
Protestantism	-.008*** (.002)	-.025*** (.006)	-.001* (.001)	-.006*** (.001)
Ethnic heterogeneity	.005** (.002)	.012** (.006)	.0008 (.002)	-.006** (.003)
Presidential power	.029 (.031)	.037 (.065)	.043*** (.015)	.010 (.033)
Decentralization	-.182 (.153)	-.451 (.341)	-.082** (.047)	-.189* (.125)
Ln(MDM)	.043 (.068)	.054 (.147)	.001 (.043)	.044 (.046)
Personal vote	-.308*** (.119)	-.579*** (.282)	-.169** (.093)	-.021 (.171)
Ln(GDP per capita)	-.296*** (.079)	-.479*** (.159)	-.010 (.018)	-.107* (.071)
Economic integration	-.089* (.065)	-.288** (.159)	-.004 (.036)	-.043*** (.019)
Western Europe	-.481*** (.204)	-.549 (.460)	-.286*** (.084)	-.068 (.221)
Constant	.599* (.394)	-2.774*** (.791)	-.353*** (.149)	-.116 (.647)
R ²	.94	.94	.94	.96
N	39	39	59	63

Note: Table entries are unstandardized regression coefficients with robust or panel-corrected standard errors in parentheses. * $p \leq .01$, ** $p \leq .01$, *** $p \leq .001$, one-tailed.

least-squares regression with robust standard errors. The country-election data has a time-series cross-sectional structure, thus introducing both autocorrelation and heteroskedasticity into the model. In order to correct for these, I have used panel-corrected standard errors and a lagged dependent variable (LDV; Beck and Katz 1995; Keele and Kelly 2006). In addition to controlling for serial correlation, the LDV also controls for previous effects of corruption on the current level of corruption. The remaining variance in the dependent variable essentially denotes the change or the difference in the corruption level from one election to the next.

Table 1 presents the results of the analyses. All models perform impressively, with R^2 reaching as high as .96. The *Clarity of responsibility* variable performs equally well regardless of the sample and the measure of corruption used: clarity of responsibility is negatively and significantly related to the level of corruption. The preliminary dynamic analyses presented in Models 3 and 4 provide additional evidence about the robustness of the clarity of responsibility effect. The results of these models suggest that high clarity of responsibility is not simply related to lower levels of corruption but to decreases in these levels. Given the concerns voiced above about the across-time analysis of corruption levels, caution must be exercised when interpreting these results. However, the fact that

Clarity of responsibility performs in the same manner in the dynamic models as it does in the cross-sectional ones increases confidence in the validity of these additional findings.¹⁸

Clarity of responsibility outperforms most other institutional variables included in the model. The effects of *Decentralization*, *Presidential power*, and *MDM* are statistically insignificant in the cross-national sample.¹⁹

¹⁸The empirical relationship detected may also reflect reverse causality. It is possible that rent-seeking politicians have incentives to keep political institutions as nontransparent and confusing as possible because they expect to benefit from it. To an extent such potential endogeneity is overcome by the fact that the measurement of the institutional variables uses information that is temporally prior to the information used for the measurement of the corruption indexes. Furthermore, it is accepted by most previous studies that institutions are causally prior to the level of corruption. Still, the temporal order between variables and the potential endogeneity of institutions can be tested and accounted for more explicitly. Using the panel data described above, an instrumental variable regression found clarity of responsibility to be exogenous to the levels of corruption. The results of this additional analysis are available from the author.

¹⁹Presidential power may be insignificant due to the exclusion of pure presidential democracies from the sample (see note 15). The insignificant effect of the other institutional variables, however, cannot be explained by the peculiarities of the sample selection and suggest their relatively low explanatory power compared to *Clarity of responsibility*.

Personal vote is the only other institutional variable that is highly significant in Models 1 and 2, indicating that electoral systems with incentives to cultivate personal vote are associated with lower levels of corruption. Recall that this finding implies support for a narrower conceptualization of the argument about the accountability-enhancing role of institutions in reducing corruption (Kunicova and Rose-Ackerman 2005; Persson, Tabellini, and Trebbi 2001; see also the discussion about the effect of electoral systems on corruption in the literature review section above). This finding thus provides additional support for rather than undermines the importance of the clarity of responsibility in reducing corruption. In sum, there is strong evidence suggesting that the role of political institutions in reducing corruption depends on the extent to which they allow voters to monitor and punish poor performance.

For a more substantive grasp of the effect of the *Clarity of responsibility* on the level of corruption, I have used the Clarify software (King, Tomz, and Wittenberg 2000; Tomz, Wittenberg, and King 2003) to produce the expected values of *Corruption-WB* at different levels of *Clarity of responsibility* (using the results in Model 1). Increasing *Clarity of responsibility* from its lowest value to its highest corresponds to lowering corruption from the level of Poland or the Czech Republic to the level of Germany or Austria.²⁰ The strongest predictor of the level of corruption in Models 1 and 2 is the level of economic development: increasing economic development from its lowest value (e.g., the level of Moldova) to its highest value (e.g., Luxemburg throughout the 2000s) corresponds to decreasing the level of corruption from that of Albania or Moldova to that of Australia, Iceland, or Norway.²¹ To achieve such an effect, however, would require increasing GDP per capita about 10 times. The strength of the *Clarity of responsibility* effect is similar to that of democratic development: increasing the value of democratic development from its minimum (e.g., Russia in 1998) to maximum (e.g., Denmark in 1997) corresponds to decreasing the level of corruption from that of Hungary to that of Ireland.²² The fact that the effect of clarity of responsibility is comparable to, if not stronger than, that of democratic development, and that the relationship remains strong in the face of the powerful effect of economic development

lends further support for the substantive importance of the clarity of responsibility in determining the level of corruption.²³

Individual Components of Clarity

The effect of clarity of responsibility can be further explored by examining how the different components of the index relate to the level of corruption. As the indicators are intended to capture the same underlying concept of clarity, looking at the individual effect of each of the indicators in the same analysis may become meaningless: their independent effects are likely to be underestimated given that the indicators are highly correlated. Given this, a separate model is estimated for each indicator, using *Corruption-TI* as the dependent variable and the cross-sectional sample.²⁴

The results in Table 2 provide general support for the argument that each component of the clarity of responsibility index is directly related to the level of corruption. As the indicators are measured by unstandardized raw scores, the signs of the coefficients differ. But substantively the effects indicate that the higher the clarity of responsibility the lower the level of corruption. One indicator—*Opposition influence*—falls short of the conventional level of statistical significance, but it has the correct sign. That is, the more substantial the opposition influence in government decision making the higher the level of corruption. As for other indicators: majority governments are associated with lower levels of corruption; higher effective number of parties is associated with higher levels of corruption; and more durable cabinets are associated with lower levels of corruption. All of these results are highly statistically and substantively significant. In sum, more stable and transparent institutional structures are associated with lower levels of corruption. On the other hand, diffusion of responsibility manifested in shared decision making and frequent, unpredictable changes in government membership reduce democratic accountability and create incentives for rent seeking.

²⁰Expected value of *Corruption-WB* is $-.65$ when *Clarity of responsibility* is at its minimum and -1.307 when it is at its maximum value.

²¹Expected value of *Corruption-WB* is $.859$ when *GDP per capita* is at its minimum and -1.928 when it is at its maximum value.

²²Expected value of *Corruption-WB* is $-.718$ when *Democratic development* is at its minimum and -1.289 when it is at its maximum value.

²³I also performed diagnostics for detecting outlying observations in the case of all models. I detected no outliers when using the DFFIT measures with the cutoff point $2\sqrt{(k+1)/(n-k-1)}$ (Belsley, Kuh, and Welsch 1980). Further, iteratively reweighted least-squares regression analyses provided essentially the same results as presented in Table 1, supporting the conclusion that the results are not driven by outliers.

²⁴The results do not change if *Corruption-WB* is used.

TABLE 2 Regression Analysis of the Different Components of Clarity of Responsibility and the Level of Corruption

	Model 5 b (robust SE)	Model 6 b (robust SE)	Model 7 b (robust SE)	Model 8 b (robust SE)
Majority government	-.026** (.014)			
Cabinet duration		-.029*** (.011)		
Effective number of parties			-.245** (.132)	
Opposition influence				-.096 (.164)
Democratic development	-.006** (.002)	-.006*** (.001)	-.008*** (.002)	-.008*** (.002)
Protestantism	-.030*** (.006)	-.022*** (.005)	-.022*** (.006)	-.019*** (.005)
Ethnic heterogeneity	.018*** (.007)	.009 (.007)	.007 (.008)	.009 (.008)
Presidential power	-.032 (.065)	.051 (.058)	-.004 (.078)	.065 (.063)
Decentralization	-.194 (.378)	-.073 (.336)	-.474 (.359)	-.311 (.423)
Ln(MDM)	.063 (.146)	.100 (.128)	.041 (.146)	.073 (.152)
Personal vote	-.471* (.316)	-.442* (.259)	-.734** (.340)	-.577* (.354)
Ln(GDP per capita)	-.463*** (.147)	-.547*** (.145)	-.458*** (.132)	-.452*** (.137)
Economic Integration	-.346** (.201)	-.161 (.144)	-.236* (.172)	.110 (.166)
Western Europe	-.625 (.512)	-.667** (.404)	-.600* (.454)	-.532 (.483)
Constant	-1.313 (1.052)	-1.724** (.874)	-3.483*** (.757)	-3.175*** (1.103)
R ²	.934	.939	.922	.922
N	39	39	39	39

Note: Dependent variable: Corruption-TI country average. Table entries are unstandardized regression coefficients with robust standard errors in parentheses. * $p \leq .01$, ** $p \leq .01$, *** $p \leq .001$, one-tailed.

Conclusion

The basic message of this study is that political institutions influence the level of corruption via decreasing or increasing clarity of responsibility for government outputs. If lines of responsibility are clear, it is easier for voters to identify whom to reward or punish at the polling booths. The threat of retrospective voting, in turn, should compel incumbents to be more vigorous in the pursuit of efficiency-enhancing policies including reducing public sector corruption. In support of this argument, this study found that when clarity of responsibility, measured by the majority status of governments, cabinet duration, opposition influence of the policymaking process, and party system fragmentation, is high, the level of public sector corruption tends to be low. This relationship remains robust regardless of the measure of corruption and the unit of analysis used, and regardless of whether the indicators of clarity are composed into an index or their effects are analyzed separately. Furthermore, clarity of responsibility outperforms most of the other institutional variables used in the previous literature.

The study makes several significant contributions to the existing literature. It is a valuable addition to the existing studies of corruption by providing a clearer un-

derstanding of how institutional structures help voters to hold governments accountable. Similar arguments have been made in the existing literature in relation to specific institutions such as electoral systems or constitutional structures. However, given that for each of these specific variables there was also an equally powerful counterargument, the merits of the accountability argument remained questionable. Contrary to the narrow focus of previous studies, this article has been able to provide considerable support for the argument that when those responsible for government performance are easy to identify, levels of corruption tend to be lower. This study has, thus, significantly enhanced our understanding of the varying levels of corruption in democratic countries.

In addition to contributing to the literature on corruption, this study broadens the applicability and generality of the clarity of responsibility argument by extending it beyond the literature on economic voting and beyond the democracies of Western Europe. While in this study the argument about the importance of clarity of responsibility is made explicitly in relation to the level of corruption, the suggestion is that it is more broadly applicable to other forms of government outputs and performance.

The results of the study also open avenues for future research. The general argument about the clarity of

responsibility could be filled in with richer theoretical insights by, for example, considering situations where politicians are more or less constrained by the concern for reelection (e.g., in very competitive elections or in situations of extreme electoral instability, etc.), which will condition the extent to which political institutions can influence the control of corruption. One might also consider how cultural or historical experiences condition the perception or acceptability of corruption, which are likely to influence whether democratic institutions can increase or decrease corruption (see Anderson and Tverdova 2003; Davis, Ai Camp, and Coleman 2004). Further, there is an urgent need to advance our understanding of the corrupt activities of local, street-level bureaucrats—a problem that may not necessarily have a direct relationship to democratic institutions. Much of this future agenda, however, requires more precise measures of corruption than are currently available.

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