

## Choosing Electoral Rules in the Presence of Corruption

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Recent studies have determined that countries with PR systems are more corrupt than those with majoritarian systems. But if the type of electoral system affects corruption, then electoral rules could be strategically chosen to maximize opportunities for corruption. This paper uses the recent wave of democratization and the resulting writing of new constitutions, which entailed in many cases the adoption of a new electoral system, to analyze the choice of electoral rules. Results suggest that more corrupt countries are more likely to adopt a plurality system than less corrupt ones.

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## 1. Introduction

Corruption, be it at the political or bureaucratic level, has become an issue of great interest recently, as it is believed to be a major barrier against development.<sup>1</sup> As a result, a number of studies have sprouted exploring the causes and consequences of corruption, in an effort to better understand it so that more effective development strategies can be designed. Previous studies have found that corruption curbs growth, investment, and the provision of public services, in addition to increasing inequality.<sup>2</sup> Why some countries suffer from widespread corruption while others remain unscathed, however, is an issue with still no definite answers. It has been found that more open and more democratic countries are less corrupt (see Treisman, 2000, for instance), but the fact that there are still differences in the levels of corruption among those countries that are both open and democratic suggest a deeper explanation. Among the reasons that have been put forth is the type of electoral system. Persson and Tabellini (2003), for instance, find that proportional representation systems are more prone to corruption than majoritarian systems.<sup>3</sup> This is because in majoritarian systems, voters are choosing among individual candidates, which creates an incentive for incumbents to perform well. In PR systems, on the other hand, voters are choosing among party lists, so that a politician's chance of reelection is based not on performance, but on his or her rank on the list.

But if the type of electoral system affects corruption, then electoral rules could be strategically chosen to maximize opportunities for corruption. In other words, as Aghion et al. (2005) point out, since those who write constitutions do have at least some knowledge of how

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<sup>1</sup> According to the Global Corruption Barometer survey, a majority of people in 48 out of 68 countries surveyed believe that corruption has worsened over the past 3 years, with political parties being rated the most corrupt (Hutchinson et al., 2005).

<sup>2</sup> See, for instance, Aidt (2003) and Jain (2001) for surveys.

<sup>3</sup> Kunicova and Rose-Ackerman (2005) reach the same conclusion with regards to PR systems being more corrupt than majoritarian systems. Unlike Persson and Tabellini, however, the authors find that presidential systems, especially in a closed list PR system, are more corrupt than parliamentary systems.

benefits would be distributed under alternative rules, the electoral system may not be exogenous. And if PR systems provide more opportunities for corruption, does it follow, then, that PR systems are more likely to be selected by countries that are more corrupt? This is the question that this paper addresses.

Electoral rules have not changed much over time; in other words, there are very few cases of PR systems that switched to majoritarian systems or vice versa. On the other hand, the 80s and 90s saw the collapse of various autocratic regimes around the world, a development that prompted the writing of new constitutions. So long as these episodes of democratization are independent of a country's corruption level, as is likely the case, they can be used to identify the effect of corruption on the choice of electoral system. Although other authors have recognized the endogeneity of constitutional rules, to my knowledge, no one has yet examined whether the level of corruption affects the choice of electoral rule made by new democracies. In fact, very few authors have explored how electoral rules are shaped in the first place. Aghion et al. (2005) look at the choice of electoral rules in the context of minority representation in U.S. cities. They show that when the minority is small, majorities adopt at-large elections, but as the minority becomes larger, the majority switches the electoral rules to single-member districts. Boix (1999) explores the choice of electoral rules in various countries. He argues that when the franchise was extended, it mostly increased the number of left-wing voters. Plurality systems persisted in countries where socialist parties were weak or dominated by the established, non-socialist parties. On the other hand, if the entry of left-wing voters causes the socialist party to be strong, then a PR system will be adopted. Aghion et al. (2004) examine the relationship between how polarized a society is, and how insulated leaders are. When measuring insulation as the type of electoral rule (the more proportional being the less insulated), the authors find that an increase in

polarization increases the likelihood that plurality will be chosen. Treisman (2000) finds that more polarized societies are more corrupt, though the effect becomes insignificant once the log of real GDP per capita is taken into account. This then suggests that a link between the level of corruption and the type of electoral rule that is selected may in fact exist. This question is important because if constitutions in newly democratic countries are being written in a way that perpetuates corruption, then these countries are in effect undermining their development potential.

The analysis exploits the variation in electoral system from countries that democratized during the 80s and 90s to identify the effect of corruption on the choice of electoral rule. The process of democratization is essentially one of extending the voting franchise to include the poor. The rich is against expansion of the franchise because it means more redistribution, so democratization will only occur if there is a threat of revolution from the poor, who want more redistribution. To stave off this threat, the rich make a credible commitment to future redistribution, which can only be achieved by extending the franchise and in effect transferring political power to the poor (Acemoglu and Robinson, 2000). This means that democratization will occur independent of a country's perceived level of corruption.

Some of these countries were dictatorships that also undertook elections, so that the electoral system was unchanged once the country democratized.<sup>4</sup> In the end, there were 65 instances out of 132 countries in the sample where the electoral system was changed during the 1984 to 2000 period, with about half of the cases resulting from democratization. The average initial perceived level of corruption for these countries, measured using the International Country

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<sup>4</sup> For example, in Brazil, from 1975 to 1985 (during the military rule), the President was elected by an electoral college, made up of the elected National Assembly and an appointed body of state representatives (Keefer 2002).

Risk Guide (ICRG) corruption index,<sup>5</sup> is 3.5, with 6 being the most corrupt. For countries that chose a majoritarian system, the initial level of corruption was 2.9 on average; for those that selected proportional representation, the average initial level of corruption was 2.11; for countries that chose a mixed system, the average was 2.7. This means that countries that selected a PR system seem to actually have started with lower corruption levels than countries that ultimately selected other electoral systems.

Using two different measures of the electoral system, the paper finds that more corrupt countries are more likely to choose a plurality rather than a PR system. Results are mostly robust throughout the different specifications, though sensitive to how the dependent variable is measured.

The paper is divided as follows. Section 2 provides a description of the data, while Section 3 presents the empirical specification. Section 4 examines the results and subjects them to a variety of sensitivity tests. The last section concludes.

## **2. Data**

### **2.1. Electoral System**

The first measure of a country's electoral system is taken from the World Bank's Database on Political Institutions (DPI2004), as described by Keefer (2002). The database contains data on the type of electoral system from 1976 to 2000. The variable PLURALITY takes a value of 1 if legislators are elected using a winner-take-all or first past the post rule and 0 if it is not. The variable is further coded NA if "there is no competition for seats in a one-party

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<sup>5</sup> The ICRG index has been produced annually since 1982 by Political Risk Services, a private international investment risk service. It measures corruption at all levels of government and bureaucracy, and is based on the opinion of experts, and seeks to capture the extent to which "high government officials are likely to demand special payments" and "illegal payments are generally expected throughout low levels of government in the form of "bribes connected with import and export licenses, exchange controls, tax assessments, police protection, or loans."

state of if legislators are appointed” and is left blank “if it is unclear whether there is competition in a one-party state.” The variable PR, for its part, has a value of 1 if the country has a proportional representation system, and 0 otherwise, unless there is only one party, one candidate, the legislature is not elected, or there is no legislature, in which case the variable takes a value of NA.

From these indicators, I constructed three different measures of the type of the electoral system. The first one, BELECSYS, takes a value of 1 if the country has no electoral system (in other words, if the values of both PLURALITY and PR are either zero, left blank, or coded as NA); 2 if PLURALITY is 1 and PR is not equal to 1; and 3 if PLURALITY does not equal 1. The next measure, ELECSYS, is coded as 1 if neither PLURALITY or PR are equal to 1; 2 if PLURALITY equals 1 but PR does not; 3 if PLURALITY does not equal 1 while PR does; and 4 if both PLURALITY and PR equal 1. The last indicator, CLELECYS, subdivides PR systems into open and closed lists. The coding comes from DPI2004’s CL variable, which takes a value of 1 if it is closed list and 0 otherwise. CELECSYS is then coded in the same manner as the other two measures, only it takes a value of 3 if the country has a closed list system (so CL in DPI2004 is equal to 1), 4 if it is open list, and 5 if both PLURALITY and PR are 1.

The fourth measure is the effective threshold, as defined by Lijphart (1994). This is defined as the number of votes each party needs to gain representation under each electoral rule. The effective threshold is calculated as the average of the threshold of exclusion and the threshold of inclusion. The threshold of exclusion is the maximum percentage of the vote that, under the most unfavorable conditions, such as having an opposition party gain all the remaining vote, is still insufficient to gain representation. For instance, in the case of a single member plurality system with 4 candidates competing for a seat, the threshold of exclusion is 50 percent.

It is measured as the total percentage of votes divided by one plus the number of seats (M) in the district; in other words,

$$Threshex = \frac{100}{1 + M} \quad (1)$$

The number of seats is defined as the average number of representatives elected by each electoral district and is taken from DPI2004. As for the threshold of inclusion, it is the minimum percentage of votes that gives a party a seat when the rest of the parties are extremely fragmented. Again, in the case of a single-member plurality system, with 4 candidates competing for the seat, the threshold of inclusion is 25 percent, so that any candidate that gets a bit more than that wins the seat if the other 3 candidates split the vote. It is measured as the highest of the legal threshold, which is also taken from DPI2004, and is the vote threshold required for representation, and

$$Threshin = \frac{100}{2M} \quad (2)$$

The effective threshold is the average of the inclusion and the exclusion thresholds. It is defined then as the level of support that, for each type of electoral rule, guarantees parliamentary representation to any party, with a probability of at least 50 percent. The higher the effective threshold, the higher the barriers to entry, and hence the less proportional the electoral system is.

## **2.2. Corruption**

There exists no objective measure of corruption, so since Mauro (1995), a number of empirical studies have employed various subjective indices that attempt to measure the perceived levels of corruption in a country. One of these indices is the International Country Risk Guide (ICRG) corruption index. The ICRG index provides an appraisal of corruption within the

political system. As mentioned in the introduction, the ICRG index is based on the opinion of experts. The aim is to provide potential investors with an assessment of the likelihood of a government overthrow or a breakdown in law and order.

The index varies from 0 to 6, with higher values denoting less corruption. The data are provided on a monthly basis, so a simple annual average is used, thus making the index continuous between 0 and 6. For ease of interpretation, I reverse the index so that high values correspond to high corruption levels.

One advantage of the ICRG index over other available indices is the fact that it is available for a long time period and for a large sample of countries. It is also highly correlated to other indices that have been used in the literature, such as Transparency International and Business International (see Treisman, 2000, for more details), which suggests that they are consistent despite being a subjective rating. However, as Ades and di Tella (1999) point out, some of the disadvantages of using such subjective indices include the fact that the rankings may not be uniform, so that a change from a score of 3 to 4 is different from a change from 5 to 6. Furthermore, it is difficult to say whether changes in score reflect changes in real levels of corruption, or the addition of new data or methodological differences. Finally, there have been arguments that such corruption perception indices are more a measure of institutional quality than actual corruption. Mocan (2004), for instance, uses the United Nation's International Crime Victim Survey (ICVS) to construct a measure of actual corruption. After controlling for institutional quality, he finds that the extent of actual corruption does not have a significant effect on perceptions of corruption. The ICVS survey, however, only asks a sample of households whether "any government official asked or expected a bribe for services."<sup>6</sup> The ICRG index, on the other hand, is more concerned with "actual or potential corruption in form of excessive

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<sup>6</sup> <http://www.unicri.it/icvs>

patronage, nepotism, job reservations, favor-for-favors, secret party funding, and suspiciously close ties between politics and business,” in addition to financial corruption.<sup>7</sup> Clearly the question asked by the ICVS survey does not address these forms of corruption. Furthermore, given that such indices are used by banks and multinationals in making investment decisions, they are important in predicting a country’s economic performance

The sample of countries included in the analysis, shown in Appendix Table 1, are restricted to include only those for which I could obtain scores.

### **2.3. Control**

As mentioned in the introduction, the choice of electoral rules depend on the degree of polarization, the country’s and an index to denote whether the country became a democracy during the period under consideration. Time-invariant measures of ethnic and linguistic fractionalization (ETHFRAC and LANGFRAC, respectively) are taken from Alesina et al. (2003), whereas a 1961 measure of ethnolinguistic fractionalization (ELF61) is taken from Roeder (2001).

The second one, INDEX, serves as an indicator for countries that changed the electoral regime due to a transition from autocracy to democracy. Transitions are identified using the POLITY2 and the REGTRANS indicators in the POLITY IV database, which is currently available up to 2003.<sup>8</sup> The variable POLITY2 is a modified version of POLITY, which codes transition years so as to detect changes in regime. The POLITY variable, for its part, is a measure of the quality of democratic institutions, and varies from +10 (strongly democratic) to -10 (strongly autocratic). A regime change is then taken to be a change from a non-positive to a

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<sup>7</sup> <http://www.icrgonline.com/page.aspx?page=icrgmethods>

<sup>8</sup> See <http://www.cidcm.umd.edu/inscr/polity/index.htm>.

positive POLITY2 value. Countries that have changed the regime are assigned a 1 starting the year they become a democracy and 0 otherwise; all other countries that have not changed the regime are assigned a 0.

Further controls added include dummies for French and socialist legal origin, as well as continental location (Asia, Africa, and Latin America and Caribbean).

Summary statistics, by electoral rule, are presented in Table 1. In it, it is seen that corruption is highest in countries without an electoral system, followed by those with a plurality system.

### 3. Empirical Specification

#### 3.1. Methodology

Countries that changed the electoral system during the period under consideration fall into two categories: those that moved from autocracy to democracy and those that moved to a different electoral system without changing the regime. In the baseline case, the electoral system takes values of 1 (autocratic), 2 (majoritarian), 3 (PR or mixed). The model is estimated using a multinomial logit (MNL), so that the probability that a country  $i$  will select electoral rule  $j$  is given by:

$$\text{Prob}(ELECSYS_{it} = j) = \frac{\exp(\beta'_{jt} X_{it})}{\sum_{k=0}^3 \exp(\beta'_{kt} X_{it})} \quad (3)$$

where  $X_{it}$  is a vector of country  $i$ 's characteristics. These characteristics include the corruption perception index and a set of control variables. Assuming  $\beta_0 = 0$ , to solve the indeterminacy in the model, equation (3) can be normalized into

$$\text{Prob}(ELECSYS_{it} = j) = \frac{\exp(\beta'_j X_{it})}{1 + \sum_{k=1}^3 \exp(\beta'_k X_{it})} \quad (4)$$

$$\text{Prob}(ELECSYS_{it} = 0) = \frac{1}{\sum_{k=1}^3 \exp(\beta'_k X_{it})} \quad (5)$$

The MNL model assumes independence from irrelevant alternatives, or that the relative probabilities for any two alternatives is unchanged if another alternative is added or if the characteristics of the third alternative is unchanged.

In the next instance, the electoral system takes values of 1 (autocratic), 2 (majoritarian), 3 (PR), and 4 (mixed). Finally, PR systems are distinguished between closed and open list, with the dependent variable now taking values of 1 (autocratic), 2 (majoritarian), 3 (closed list), 4 (open list), and 5 (mixed).

To take into account the panel nature of the data, I include year-specific fixed effects. Furthermore, because of possible serial correlation, the assumption of independence of the error term is relaxed by clustering at the country level.

In the second case, the electoral system is measured using the effective threshold. The higher the effective threshold, the less proportional is the electoral system. The estimated equation is of the form:

$$EFFTHRESH_{it} = \beta_0 + \beta_1 CORRUP_{it} + \beta_2 CONTROL_{it} + \alpha_i + \nu_t + \varepsilon_{it} \quad (6)$$

where  $EFFTHRESH_{it}$  is the effective threshold in country  $i$  at time  $t$ , measured as the average of the thresholds of inclusion and exclusion;  $CORRUP_{it}$  is the lagged ICRG corruption perception index;  $CONTROL_{it}$  is a vector of control variables;  $\alpha_i$  are country fixed effects;  $\nu_t$  are year fixed

effects; and  $\varepsilon_{it}$  is the error term. Again, to control for possible serial correlation, I use clustering at the country level.

Finally, because the electoral system does not change much over time as a result of time persistence, I use a standard dynamic panel technique, the Arellano and Bond (1991) GMM estimator. This specification has the advantage of addressing the possible endogeneity of the corruption index. Time fixed effects are included as the exogenous variables, while the corruption index and the indicator for whether the country became democratic are included as the endogenous variables. The estimated equation is:

$$EFFTHRESH_{it} = \theta EFFTHRESH_{it-1} + \beta_1 CORRUP_{it} + \beta_2 INDEX_{it} + \beta_0 + \nu_t + \alpha_i + \varepsilon_{it} \quad (7)$$

All variables are as defined above.

#### 4. Results

Baseline results estimating how likely a country is to adopt a plurality system versus PR or mixed are shown in Table 2. The coefficients indicate that the likelihood of moving from autocracy to any type of electoral system is lower the greater the corruption level. Moving from autocracy to a PR system is less likely the higher the corruption level than moving to another type of electoral system. Democratization increases the log-odds between no electoral system and PR or mixed, but is insignificant in the case of plurality. Finally, ethnic fractionalization decreases the log-odds, while the ethnolinguistic fractionalization index raises the log-odds between no electoral system and plurality. The results are robust to adding further controls. This provides initial support for the hypothesis that more corrupt countries are more likely to choose a plurality system than less corrupt countries.

Table 3 subdivides other types of electoral systems into PR and mixed. The results, however, are unchanged. More corrupt countries still seem more likely to adopt a plurality system, and least likely to enact a PR system, perhaps because it provides for a higher degree of insulation for the leaders. Democratization increases the log-odds between no system and PR, as well as between no system and a mixed electoral system. Furthermore, undergoing democratization increases the likelihood that a country will choose a plurality or a mixed system, though the effect on the probability of choosing a PR system is insignificant. Also, as before, ethnic fractionalization reduces the log-odds of adopting any type of electoral system, while ethnolinguistic fractionalization increases it.

Since it has been found that countries with closed lists are more corrupt than those with open lists (Persson and Tabellini, 2003), Table 4 further distinguishes between the two, which now renders the effect of corruption on the choice of a mixed electoral system mostly insignificant. All the other conclusions remain unchanged in that higher corruption is still associated with the choice of a plurality system. Democratization increases the log-odds between no electoral system and closed lists, as well as mixed systems, though its impact on the choice of open lists is mostly insignificant. Finally, ethnic fractionalization reduces the log-odds of all electoral systems being adopted, while ethnolinguistic fractionalization raises it, though its effect is not robust across all specifications.

Table 5 defines the degree of proportionality using the effective threshold. Here it is found that greater corruption reduces the effective threshold, though it is not significant across all specifications. This contradicts previous results, as a decrease in the effective threshold means an increase in the degree of proportionality. This could be a result of measurement error in the dependent variable.

As further robustness checks, Tables 6, 7, and 8 examine only the sample of countries that democratized during the period. Reducing the sample in this fashion renders the coefficient on corruption insignificant in most cases. Corruption appears to increase the log-odds that a country will select a mixed system, and reduces the log-odds that it would choose an open list. Ethnic fractionalization is also mostly insignificant, but the ethnolinguistic fractionalization index is now negatively associated with the different electoral systems, though it is not significant with respect to the plurality rule.

Overall, the results do suggest some relationship between the degree of corruption in a country and the choice of electoral rules. More corrupt countries appear more likely to choose a plurality system rather than PR or mixed, despite the fact that under plurality rule, politicians are directly held accountable to voters, while under PR systems, they are less accountable. On the other hand, as Aghion et al. (2004) argue, plurality systems are more insulated, in that they have higher barriers to entry, so more corrupt regimes may prefer to keep the barriers to entry high so as to reduce competition, rather than having it harder to be held accountable.

## **5. Conclusion**

Recent studies have begun to address the issue of how the choice of electoral system influences the degree of perceived corruption in a country. But if the type of electoral system affects corruption, then electoral rules could be strategically chosen to maximize opportunities for corruption. This paper uses the recent wave of democratization and the resulting writing of new constitutions, which entailed in many cases the adoption of a new electoral system, to analyze the choice of electoral rules. In particular, if proportional systems are characterized by

more corruption, as previous studies have found, are more corrupt countries more likely to adopt a proportional system?

Results suggest that more corrupt countries are in fact more likely to adopt a plurality system than less corrupt ones. These findings are mostly, but not completely robust to various specifications. What is clear, however, is that how corrupt a country is at the time it is changing its electoral rules does in fact affect what system is ultimately adopted.

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**Table 1: Summary Statistics**

Variable	Obs	Mean	Std. Dev.	Min	Max
<b>No Electoral System</b>					
Corruption	503	3.379	1.090	1	6
Democratization	503	0.082	0.274	0	1
ETH_FRAC	502	0.575	0.265	0.0392	0.9302
LANG_FRAC	481	0.458	0.302	0.0028	0.9227
ELF61	458	0.499	0.298	0.004	0.909
<b>Plurality</b>					
Corruption	723	2.914	1.277	0	6
Democratization	723	0.149	0.357	0	1
ETH_FRAC	712	0.513	0.253	0.0394	0.9302
LANG_FRAC	713	0.493	0.303	0.008	0.9227
ELF61	657	0.571	0.257	0.014	0.909
<b>PR</b>					
Corruption	653	2.115	1.427	0	6
Democratization	653	0.179	0.384	0	1
ETH_FRAC	653	0.382	0.239	0.0468	0.9084
LANG_FRAC	645	0.290	0.257	0.0193	0.9038
ELF61	628	0.380	0.248	0.006	0.898
<b>Mixed</b>					
Corruption	294	2.712	1.178	0	5
Democratization	294	0.333	0.472	0	1
ETH_FRAC	294	0.319	0.233	0.002	0.8791
LANG_FRAC	280	0.241	0.239	0.0021	0.836
ELF61	245	0.329	0.273	0.003	0.877

**Table 2: Baseline Results**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<b>Dependent Variable: Electoral System</b>								
	Plurality	Other	Plurality	Other	Plurality	Other	Plurality	Other
Corruption	-0.300*** (0.115)	-0.687*** (0.128)	-0.371** (0.145)	-0.538*** (0.153)	-0.314** (0.152)	-0.609*** (0.174)	-0.230 (0.177)	-0.601*** (0.223)
Democratization	0.713 (0.465)	1.377*** (0.481)	0.437 (0.518)	1.393*** (0.523)	1.007 (0.681)	2.033*** (0.743)	0.862 (0.662)	1.582* (0.825)
ETH_FRAC			-4.837** (2.261)	-3.893** (1.891)	-5.659** (2.571)	-4.860** (2.397)	-4.925** (2.324)	-4.056 (2.542)
LANG_FRAC			0.343 (1.070)	-1.388 (1.166)	-0.138 (1.049)	-1.369 (1.280)	0.223 (1.385)	2.386* (1.445)
ELF1961			4.877** (2.347)	2.718 (2.008)	5.029** (2.413)	2.262 (2.264)	4.210** (2.055)	-0.743 (1.919)
Legislative Origin	No	No	No	No	Yes	Yes	Yes	Yes
Regional	No	No	No	No	No	No	Yes	Yes
Dummies								
Observations	2173	2173	1934	1934	1916	1916	1916	1916
% Correctly Predicted	53.03		63.64		65.91		66.67	
Pseudo R-squared	0.0663		0.1485		0.2128		0.2902	
Log Likelihood	-2164.6088		-1751.1478		-1605.5428		-1447.7823	
<b>Year Dummies</b>								
<b>Dependent Variable: Electoral System</b>								
Corruption	-0.322*** (0.121)	-0.746*** (0.143)	-0.407*** (0.153)	-0.591*** (0.173)	-0.365** (0.159)	-0.685*** (0.195)	-0.290 (0.195)	-0.730*** (0.269)
Democratization	0.592 (0.487)	1.176** (0.522)	0.244 (0.554)	1.106** (0.564)	0.777 (0.695)	1.700** (0.758)	0.532 (0.658)	1.017 (0.819)
ETH_FRAC			-4.896** (2.269)	-3.976** (1.951)	-5.688** (2.584)	-4.947** (2.476)	-5.083** (2.381)	-4.394 (2.728)
LANG_FRAC			0.285 (1.101)	-1.479 (1.225)	-0.211 (1.073)	-1.449 (1.345)	0.339 (1.344)	2.702* (1.573)
ELF1961			4.975** (2.348)	2.868 (2.037)	5.106** (2.418)	2.401 (2.322)	4.229** (2.070)	-0.764 (2.076)
Legislative Origin	No	No	No	No	Yes	Yes	Yes	Yes
Regional	No	No	No	No	No	No	Yes	Yes
Dummies								
Observations	2173	2173	1934	1934	1916	1916	1916	1916
% Correctly Predicted	56.82		61.36		65.91		68.94	
Pseudo R-squared	0.0865		0.1643		0.2287		0.3129	
Log Likelihood	-2117.7522		-1718.7202		-1573.1984		-1401.3147	

Note: Robust standard errors are adjusted for clustering on country. Reference category is no electoral system. \* denotes significance at the 10% level; \*\* at the 5 % level; and \*\*\* at the 1 % level.

**Table 3: Plurality vs. PR vs. Mixed**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
<b>Dependent Variable: Electoral System</b>												
	Plurality	PR	Mixed	Plurality	PR	Mixed	Plurality	PR	Mixed	Plurality	PR	Mixed
Corruption	-0.303*** (0.117)	-0.787*** (0.154)	-0.461*** (0.159)	-0.377** (0.148)	-0.646*** (0.182)	-0.217 (0.186)	-0.320** (0.155)	-0.692*** (0.199)	-0.329 (0.203)	-0.249 (0.179)	-0.723*** (0.250)	-0.319 (0.247)
Democratization	0.704 (0.465)	1.111** (0.546)	1.790*** (0.549)	0.418 (0.517)	1.041* (0.580)	2.124*** (0.624)	0.990 (0.680)	1.744** (0.785)	2.735*** (0.881)	0.859 (0.658)	1.041 (0.862)	2.576*** (0.903)
ETH_FRAC				-4.798** (2.261)	-3.582* (1.929)	-4.632** (2.349)	-5.615** (2.570)	-4.611* (2.421)	-5.425** (2.718)	-4.779** (2.352)	-3.542 (2.862)	-4.820* (2.652)
LANG_FRAC				0.345 (1.078)	-1.331 (1.424)	-1.773* (1.078)	-0.137 (1.051)	-1.271 (1.503)	-1.908 (1.225)	0.253 (1.418)	3.997** (1.696)	0.468 (1.576)
ELF1961				4.869** (2.346)	2.861 (2.116)	2.380 (2.265)	5.013** (2.406)	2.436 (2.354)	1.685 (2.520)	4.214** (2.093)	-1.139 (2.156)	-0.658 (2.295)
Legislative Origin							-0.459	0.537	1.098	-0.342	0.338	1.170*
Observations	2173	2173	2173	1934	1934	1934	1916	1916	1916	1916	1916	1916
% Correctly Predicted	43.94			46.97			49.24			52.27		
Pseudo R-squared	0.0632			0.1385			0.1907			0.2741		
Log Likelihood	-2721.3880			-2200.5110			-2042.7214			-1832.2387		
<b>Year Dummies</b>												
<b>Dependent Variable: Electoral System</b>												
	Plurality	PR	Mixed	Plurality	PR	Mixed	Plurality	PR	Mixed	Plurality	PR	Mixed
Corruption	-0.323*** (0.123)	-0.838*** (0.168)	-0.523*** (0.174)	-0.412*** (0.157)	-0.695*** (0.202)	-0.266 (0.202)	-0.370** (0.162)	-0.764*** (0.219)	-0.403* (0.218)	-0.308 (0.197)	-0.847*** (0.295)	-0.450 (0.284)
Democratization	0.587 (0.486)	0.944 (0.583)	1.536** (0.597)	0.228 (0.552)	0.771 (0.618)	1.801*** (0.664)	0.765 (0.695)	1.430* (0.803)	2.365*** (0.907)	0.530 (0.653)	0.469 (0.845)	2.012** (0.908)
ETH_FRAC				-4.860** (2.266)	-3.650* (1.988)	-4.835** (2.420)	-5.640** (2.580)	-4.676* (2.495)	-5.635** (2.807)	-4.950** (2.407)	-3.876 (3.018)	-5.284* (2.853)
LANG_FRAC				0.286 (1.108)	-1.416 (1.473)	-1.889* (1.096)	-0.214 (1.075)	-1.352 (1.563)	-2.017 (1.247)	0.365 (1.376)	4.301** (1.742)	0.716 (1.728)
ELF1961				4.963** (2.344)	2.985 (2.138)	2.617 (2.300)	5.087** (2.409)	2.554 (2.404)	1.891 (2.590)	4.238** (2.103)	-1.161 (2.270)	-0.596 (2.467)
Legislative Origin							-0.430	0.610	1.194	-0.340	0.384	1.213*
Regional Dummies							(0.508)	(0.594)	(0.750)	(0.527)	(0.704)	(0.720)
Observations	2173	2173	2173	1934	1934	1934	1916	1916	1916	1916	1916	1916
% Correctly Predicted	44.70			47.73			50.76			50.76		
Pseudo R-squared	0.0805			0.1521			0.2046			0.2931		
Log Likelihood	-2670.9104			-2165.6507			-2007.6212			-1784.1366		

Note: Robust standard errors are adjusted for clustering on country. Reference category is no electoral system. \* denotes significance at the 10% level; \*\* at the 5 % level; and \*\*\* at the 1 % level.

**Table 4: Closed vs. Open List**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Plurality	PR Closed List	PR Open List	Mixed	Plurality	PR Closed List	PR Open List	Mixed	Plurality	PR Closed List	PR Open List	Mixed
Corruption	-0.361** (0.146)	-0.534*** (0.203)	-1.044*** (0.348)	-0.222 (0.188)	-0.297* (0.152)	-0.627*** (0.227)	-0.854** (0.365)	-0.322 (0.206)	-0.214 (0.173)	-0.679** (0.295)	-0.798* (0.420)	-0.322 (0.249)
Democratization	0.583 (0.450)	1.357*** (0.505)	1.217 (1.094)	2.330*** (0.552)	1.124** (0.546)	1.894*** (0.629)	2.545** (1.216)	2.938*** (0.725)	1.027* (0.570)	1.080 (0.696)	2.228* (1.262)	2.781*** (0.769)
ETH_FRAC	-6.044*** (2.278)	-5.155*** (1.728)	-7.624** (3.636)	-5.941*** (2.280)	-7.177*** (2.438)	-6.706*** (2.082)	-8.167** (3.892)	-7.098*** (2.362)	-6.652*** (2.445)	-6.257*** (2.345)	-7.723** (3.787)	-6.826*** (2.450)
LANG_FRAC	0.086 (1.055)	-2.047 (1.530)	-1.560 (2.360)	-2.115** (1.045)	-0.424 (1.010)	-1.859 (1.623)	-2.229 (2.570)	-2.303* (1.212)	-0.064 (1.423)	3.481* (1.954)	1.991 (3.287)	0.090 (1.592)
ELF1961	5.542** (2.313)	3.771* (1.987)	5.481* (3.273)	3.126 (2.094)	5.851** (2.309)	3.612 (2.254)	4.854 (3.494)	2.559 (2.231)	5.244** (2.352)	0.402 (2.428)	2.638 (3.411)	0.449 (2.531)
Legislative Origin					Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Regional Dummies									Yes	Yes	Yes	Yes
Observations	1934	1934	1934	1934	1916	1916	1916	1916	1916	1916	1916	1916
% Correctly Predicted	46.21				47.73				52.27			
Pseudo R-squared	0.157				0.225				0.304			
<b>Time Fixed Effects</b>												
Corruption	-0.388** (0.153)	-0.567*** (0.220)	-1.092*** (0.359)	-0.261 (0.204)	-0.336** (0.158)	-0.682*** (0.247)	-0.915** (0.376)	-0.380* (0.222)	-0.262 (0.186)	-0.787** (0.341)	-0.892** (0.434)	-0.435 (0.281)
Democratization	0.401 (0.501)	1.101** (0.552)	0.977 (1.162)	2.008*** (0.612)	0.915 (0.588)	1.586** (0.679)	2.307* (1.250)	2.573*** (0.788)	0.718 (0.606)	0.466 (0.743)	1.828 (1.261)	2.209*** (0.835)
ETH_FRAC	-6.121*** (2.306)	-5.265*** (1.798)	-7.691** (3.696)	-6.176*** (2.379)	-7.222*** (2.472)	-6.835*** (2.160)	-8.222** (3.984)	-7.358*** (2.461)	-6.866*** (2.461)	-6.757*** (2.376)	-8.053** (3.820)	-7.423*** (2.526)
LANG_FRAC	0.035 (1.067)	-2.123 (1.556)	-1.623 (2.366)	-2.227** (1.052)	-0.496 (1.009)	-1.939 (1.655)	-2.281 (2.565)	-2.418** (1.213)	0.033 (1.363)	3.813* (1.985)	2.207 (3.240)	0.315 (1.742)
ELF1961	5.623** (2.308)	3.894* (1.996)	5.571* (3.297)	3.354 (2.130)	5.927** (2.303)	3.770* (2.271)	4.947 (3.545)	2.796 (2.279)	5.282** (2.363)	0.452 (2.469)	2.654 (3.448)	0.589 (2.669)
Legislative Origin					Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Regional Dummies									Yes	Yes	Yes	Yes
Observations	1934	1934	1934	1934	1916	1916	1916	1916	1916	1916	1916	1916
% Correctly Predicted	36.36				43.94				51.52			
Pseudo R-squared	0.167				0.235				0.319			

Note: Robust standard errors are adjusted for clustering on country. Reference category is no electoral system. \* denotes significance at the 10% level; \*\* at the 5% level; and \*\*\* at the 1% level. Dependent variable is the electoral system.

**Table 5: Effective Threshold Results**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	<b>No Time Fixed Effect</b>				<b>Time Fixed Effects</b>					<b>Arellano Bond GMM</b>	
Lagged Threshold										0.317**	0.417***
Corruption	-1.189 (0.973)	-1.751 (1.061)	-1.726* (1.008)	-0.507 (1.052)	-1.300 (0.998)	-1.969* (1.073)	-1.986* (1.011)	-0.867 (1.074)	-1.335** (0.653)	(0.142)	(0.128)
Democratization	6.363* (3.321)	3.557 (3.149)	7.070** (3.013)	8.649*** (3.049)	4.764 (3.357)	1.477 (3.164)	5.143* (3.040)	6.624** (3.104)	13.050*** (2.921)	6.824 (6.860)	8.569 (5.546)
ETH_FRAC		-34.706*** (9.727)	-37.677*** (7.697)	-36.476*** (8.095)		-34.887*** (9.658)	-37.834*** (7.644)	-36.670*** (8.083)		1904 133	1894 132
LANG_FRAC		-4.621 (7.154)	-7.526 (6.851)	-13.060** (6.516)		-4.883 (7.119)	-7.608 (6.806)	-12.385* (6.568)		0.0179 0.3199	0.0047 0.3963
ELF1961		46.208*** (10.766)	40.180*** (9.343)	45.052*** (8.693)		46.915*** (10.709)	40.866*** (9.329)	45.133*** (8.711)		0.7001	0.3713
Legislative Origin			Yes	Yes			Yes	Yes			
Regional Dummy			Yes	Yes			Yes	Yes			
Observations	2173	1934	1916	1916	2173	1934	1916	1916	2173	1904	1894
R-squared	0.0207	0.1422	0.2850	0.3033	0.0435	0.1755	0.3127	0.3270	0.7798		
Adjusted R-Squared	0.0198	0.1399	0.2820	0.2993	0.0351	0.1660	0.3036	0.3170	0.7634		
J- test p-value										0.7001	0.3713
Second Order Serial Correlation p-value										0.3199	0.3963

Note: Robust standard errors are adjusted for clustering on country. Reference category is no electoral system. \* denotes significance at the 10% level; \*\* at the 5 % level; and \*\*\* at the 1 % level. GMM regression includes year fixed effects. Corruption and democratization are treated as endogenous variables, with the number of lags used for instrumenting them being 2.

**Table 6: Sample of New Democracies, Baseline Results**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Year Fixed Effects				Year Fixed Effects					
	Plurality	Other	Plurality	Other	Plurality	PR	Mixed	Plurality	PR	Mixed
Corruption	0.095 (0.243)	0.334 (0.283)	0.130 (0.282)	0.468 (0.379)	0.031 (0.248)	0.088 (0.323)	0.701* (0.405)	0.055 (0.277)	0.229 (0.438)	0.870* (0.454)
Democratization	1.264*** (0.441)	3.821*** (0.662)	0.967** (0.493)	2.645*** (0.770)	1.214*** (0.428)	4.263*** (0.710)	3.927*** (0.612)	0.873* (0.492)	3.476*** (0.994)	2.648*** (0.763)
ETH_FRAC	4.537 (4.375)	11.744 (7.333)	4.599 (4.797)	12.632 (9.613)	4.245 (4.176)	12.697** (6.375)	12.159 (7.464)	4.309 (4.670)	13.838 (8.527)	12.891 (9.848)
LANG_FRAC	5.364** (2.703)	-1.281 (1.574)	5.649* (3.225)	-1.999 (1.977)	5.187** (2.538)	-0.004 (2.414)	-2.805 (1.768)	5.420* (3.015)	-0.727 (2.695)	-3.694* (2.123)
ELF1961	-5.169* (2.890)	-13.367 (8.200)	-5.521* (3.230)	-14.718 (10.441)	-4.550 (2.803)	-16.346** (7.296)	-13.944* (7.884)	-4.915 (3.112)	-17.744* (9.516)	-14.927 (10.505)
Observations	535	535	535	535	535	535	535	535	535	535
% Correctly Predicted	78.79		81.82		54.55		54.55		54.55	
Pseudo R-squared	0.5103		0.5473		0.4496		0.4792			

Note: Robust standard errors are adjusted for clustering on country. Reference category is no electoral system. \* denotes significance at the 10% level; \*\* at the 5 % level; and \*\*\* at the 1 % level. Regressions include legislative origin dummies (French and socialist) and regional dummies (Asia, Latin America and Caribbean, and Africa).

**Table 7: Sample of New Democracies—Distinguishing Between Plurality, PR, and Mixed**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
					Year Fixed Effects			
	Plurality	Closed List	Open List	Mixed	Plurality	Closed List	Open List	Mixed
Corruption	-0.020 (0.245)	-0.335 (0.458)	-0.551** (0.234)	0.483 (0.374)	-0.008 (0.277)	-0.012 (0.644)	-0.608 (0.573)	0.807* (0.435)
Democratization	0.997 (0.619)	5.161*** (1.135)	-15.811*** (1.206)	4.390*** (0.669)	0.380 (0.650)	3.772*** (1.171)	-83.618*** (2.061)	2.772*** (0.873)
ETH_FRAC	0.564 (3.085)	-2.561 (2.566)	837.249 (0.000)	2.071 (3.527)	0.145 (3.230)	-3.920 (3.088)	2,893.059 (0.000)	0.599 (4.360)
LANG_FRAC	3.914 (2.609)	0.154 (2.870)	-537.260*** (6.222)	-4.442*** (1.493)	4.437 (3.426)	-2.139 (3.352)	-2,764.785 (0.000)	-6.598*** (1.735)
ELF1961	-4.310 (3.265)	-13.211*** (3.330)	41.879*** (10.277)	-9.011** (3.591)	-4.514 (3.339)	-13.628*** (3.733)	-29.609*** (10.990)	-9.171** (4.108)
Observations	535	535	535	535	535	535	535	535
% Correctly Predicted	66.67				66.67			
Pseudo R-squared	0.5687				0.6083			

Note: Robust standard errors are adjusted for clustering on country. Reference category is no electoral system. \* denotes significance at the 10% level; \*\* at the 5 % level; and \*\*\* at the 1 % level. Regressions include legislative origin dummies (French and socialist) and regional dummies (Asia, Latin America and Caribbean, and Africa).

**Table 8: Sample of New Democracies—Effective Threshold**

	(1)	(2)	(3)	(4)
	OLS	OLS	OLS	Arellano and Bond GMM
	Year Fixed Effects		Country and Year Fixed Effects	
Lagged Threshold				0.330*
				(0.164)
Corruption	-0.725 (1.176)	-0.842 (1.172)	-1.655 (1.528)	-2.737 (1.788)
Democratization	17.679*** (3.098)	10.097** (4.190)	7.020* (3.666)	9.445** (4.212)
ETH_FRAC	-20.172** (9.603)	-24.712** (10.371)		
LANG_FRAC	5.034 (6.105)	4.457 (6.875)		
ELF1961	19.962 (12.277)	23.480* (13.010)		
Observations	535	535	589	522
R-squared	0.3947	0.4511	0.6413	
Adjusted R-Squared	0.3820	0.4207	0.6073	
Log Likelihood	-2178.5406	-2152.3821	-2272.8324	
J-test p-value				0.9998
Second Order Serial Correlation p-value				0.3885

Note: Robust standard errors are adjusted for clustering on country. Reference category is no electoral system. \* denotes significance at the 10% level; \*\* at the 5 % level; and \*\*\* at the 1 % level. OLS regressions include legislative origin dummies (French and socialist) and regional dummies (Asia, Latin America and Caribbean, and Africa). GMM regression includes year fixed effects. Corruption and democratization are treated as endogenous variables, with the number of lags used for instrumenting them being 2.

### Appendix Table 1: List of Countries

Albania	Cuba	Iraq	Netherlands	Spain
Algeria	Cyprus	Ireland	New Zealand	Sri Lanka
Angola	Czech Republic	Israel	Nicaragua	Sudan
Argentina	Denmark	Italy	Niger	Sweden
Armenia	Dominican Republic	Ivory Coast	Nigeria	Switzerland
Australia	Ecuador	Jamaica	Norway	Syria
Austria	Egypt	Japan	Oman	Taiwan
Azerbaijan	El Salvador	Jordan	Pakistan	Tanzania
Bahrain	Estonia	Kazakhstan	Panama	Thailand
Bangladesh	Ethiopia	Kenya	Papua New Guinea	Togo
Belarus	Finland	North Korea	Paraguay	Trinidad
Belgium	France	South Korea	Peru	Tunisia
Bolivia	Gabon	Kuwait	Philippines, the	Turkey
Botswana	Gambia	Latvia	Poland	Uganda
Brazil	Germany	Liberia	Portugal	Ukraine
Bulgaria	Ghana	Libya	Qatar	United Arab Emirates
Burkina Faso	Greece	Lithuania	Romania	United Kingdom
Burma (Myanmar)	Guatemala	Madagascar	Russia	United States
Cameroon	Guinea	Malawi	Saudi Arabia	Uruguay
Canada	Guinea Bissau	Malaysia	Senegal	Venezuela
Chile	Guyana	Mali	Serbia and Montenegro	Vietnam
China	Haiti	Mexico	Sierra Leone	Yemen
Colombia	Honduras	Moldova	Singapore	Zambia
Congo Democratic Republic	Hungary	Mongolia	Slovak Republic	Zimbabwe
Congo Republic	India	Morocco	Slovenia	
Costa Rica	Indonesia	Mozambique	Somalia	
Croatia	Iran	Namibia	South Africa	