Clientelism, corruption and the rule of law

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ABSTRACT

It is widely believed that clientelism-the giving of material goods in return for electoral support-is associated with poorer governance outcomes. However, systematic cross-country evidence on the deleterious effects of clientelism on governance outcmes is lacking. In this paper we examine the relationship between political clientelism, corruption and rule of law using cross-country panel data for 134 countries for the period 1900–2018. We distinguish between two manifestations of political clientelism-whether vote buying exists, and whether political parties offer material goods to their constituents in exchange for political support (non-programmatic party linkages). We provide evidence of a negative relationship existing between political clientelism on governance outcomes, with increases in clientelism leading to increased political corruption, and weaker rule of law. We also find that the deleterious effects of political clientelism are mainly through non-programmatic party linkages rather than the practice of vote buying.

1. Introduction

The pervasiveness of political clientelism, which reflects strategic, discretionary, and targeted exchange of private goods and services for political support, has been well documented in many country case studies and political ethnography (e.g., Auyero, 2000; Lindberg, 2003; Nichter, 2018; Scott, 1969; Stokes, 2005). In many low and middle income countries, clientelistic practices such as vote-buying and "machine politics" is an ubiquitous feature of electoral politics (see Calvo & Murillo, 2014 for evidence for Argentina and Chile; Ochieng'Opalo, 2022 for Kenya; and Aspinall, Weiss, Hicken, & Hutchcroft, 2022 for Indonesia and The Philippines). A large literature has studied the causes of clientelism, the reasons for its persistence, and the different types of clientelism that has been observed in the developing world (see Bardhan & Mookherjee, 2020; Hicken & Nathan, 2020 for surveys of the literature). However, there is limited knowledge about the effects of clientelism on governance outcomes in the longer term. In this paper, we present new evidence on the relationship between political clientelism, corruption, and the rule of law over a large number of developing and developed countries for the period 1900–2018.

We discuss two mechanisms by which political clientelism should be anticipated to affect governance outcomes. First, political clientelism is expected to lead to corruption as politicians seek illicit sources of funds to finance vote buying or firms provide campaign funds to political parties in return for preferential access to government contracts or the bureaucracy (Canen & Wantchekon, 2022; Nathan, 2019). Second, political clientelism should be associated with weaker enforcement of property rights, leading to lower governance quality, as politicians would be expected to seek access to illicit or selectively enforce property rights so as to favour their own supporters (Holland, 2016; Keefer & Vlaicu, 2008).

A key limitation in the previous empirical literature on clientelism has been the lack of comparable measures of the practice of political clientelism across a sufficiently large number of countries and long periods that would allow for a rigorous cross-country analysis of effects. In this paper, we overcome this challenge by using a recently released set of measures of political clientelism provided by V-Dem (Coppedge et al., 2019b) that are available for a large number of countries for the period 1900–2018. We look at two dimensions of political clientelism: party linkages and vote buying (including turnout buying) during elections. Party linkages refer to the sort of goods that political parties offer – particularistic or programmatic – in exchange for political support. This dimension of clientelism corresponds to modern form of 'relational clientelism', where political patrons engage in

exchange with citizens all through the election term (Nichter, 2018; Yíldírím & Kitschelt, 2020). Vote buying refers to the distribution of money or gifts to individuals, families, or small groups shortly before an election in order to influence their vote choice or turnout. This dimension of clientelism may be termed as 'one-shot' clientelism where politicians provide inducements to voters prior to or during an election (Pellicer, Wegner, Bayer, & Tischmeyer, 2020; Yíldírím & Kitschelt, 2020). Both party linkages and vote buying are seen as important manifestations of the practice of political clientelism in most regions of the world (Hicken, 2011; Lindberg & Morrison, 2008). For example, in the case of vote buying, Brusco, Nazareno, and Stokes (2004) document a variety of handouts such as cash, food, goods and services that are offered to voters prior to elections by political parties in Argentina. In the case of party linkages, in Singapore, the government invested heavily in improvements and maintenance of housing, and openly used the program as a way to reward constituents who voted for the ruling party and to punish those who did not (Stokes, Dunning, Nazareno, & Brusco, 2013).

We use panel data for 134 countries covering the years 1900–2018, which allows us to study all of the twentieth century for both (now) developed and developing countries. This is important as many developed countries—such as Italy, the United Kingdom, and the United States—had pervasive clientelist practices in politics during the first half of the twentieth century, but those ways declined in the second half (see Kitschelt et al., 2007; Lizzeri & Persico, 2004; Wolfinger, 1972). In this paper, we ask whether past practices of political clientelism in developed countries and more contemporary manners of such clientelism in developing countries have led to adverse governance outcomes, such as higher corruption and weaker rule of law.

We find that differences in governance quality, as proxied by corruption and rule of law, are explained by differences in political clientelism to a significant extent. Countries featuring more pervasive clientelistic practices in politics also tend to have higher levels of corruption, and weaker rule of law. In addition, we find that while both vote buying and clientelistic party linkages show similarly strong correlations with corruption, it is mainly clientelistic party linkages that account for the deleterious effects of political clientelism on the rule of law. In substantive terms, a one-unit difference in the clientelistic party linkages indicator (which corresponds to moving from a setting where constituents are systemically rewarded with goods, cash or jobs to a setting where parties also offer local collective goods in exchange for political support) is associated with a statistically significant 4–5% increase in rule of law.

The rest of the paper is organized in five sections. Section 2 reviews the literature on clientelism, corruption and the rule of law. Section 3 describes the data and the empirical strategy. In Section 4 we present our results. Section 5 concludes.

2. The relationship between political clientelism, corruption and the rule of law

While there is a large literature in political science on what makes clientelism a viable electoral strategy, the literature is more sparse on its implications for long-term governance outcomes. In this section, we discuss the literature on the effects of clientelism on governance outcomes, focusing on corruption and rule of law. We follow the recent literature in distinguishing between 'one-shot' clientelism (vote buying)[1] and relational clientelism

(here proxied by party linkages) and assess the implications of these two dimensions for corruption and the rule of law.

Clientelism involves an exchange of cash and material goods and services offered by the politician (or her agents, the brokers) to voters based on the understanding that these voters will reciprocate by voting for and expressing support for the politician or party. Given the low ability of politicians to make credible pre-electoral commitments to voters, there is a latent incentive for politicians to engage in inefficient material redistribution of discretionary rents to the individuals who promise to vote for the politicians (Keefer & Vlaicu, 2008; Lindberg, 2010; Robinson & Verdier, 2013). The contingent, reciprocal nature of exchanges under political clientelism should thus be expected to induce a bias away from universal provision of goods and services towards more discretionary public spending and targeted illicit private goods.

In the relationship between clientelism and corruption, both dimensions of clientelism may matter in affecting corruption. In both cases, politicians transfer cash or material benefits to citizens, with the expectation that those receiving the benefits will provide political support to the politician. In the case of 'one shot' clientelism or vote-buying, there is a distribution of cash or material handouts to individual voters either just before or during elections by politicians or their intermediaries (brokers) with the expectation that the voter will reciprocate by voting for the political candidate or party.[2] In the case of relational clientelism, politicians and political parties engage in exchanges with delimited groups of voters continuously throughout an electoral term. The threat of withdrawal of substantial benefits is as much a motivation for voters to support a politician as the prospect of obtaining such benefits (Yíldírím & Kitschelt, 2020).

The financing of the costs of vote-buying and relational clientelism typically involves elaborate and wide-spread systems of contractual arrangements, involving politicians, brokers and firms, in which the latter provide campaign funds for politicians in exchange for cabinet positions, influence over government policy, or preferential access to government contracts (Canen & Wantchekon, 2022). The mediating agency of brokers in the clientelist transaction can also facilitate corruption as the ready access to brokers, by lowering the uncertainty of whom and how much to bribe, reduces the chance of detection as well as the likelihood of more corrupt deals (Bardhan, 2022). Thus, the larger use of vote-buying and relational clientelism as clientelist strategies are expected to be associated with higher levels of corruption. In our empirical analysis, we use two variables from V-Dem – party linkages (as a measure of relational clientelism) and vote buying, which we explain in greater detail in the next section.

What about the relationship between clientelism and the rule of law? Here, we expect a difference in the way that vote-buying may affect the rule of law versus the effect of relational clientelism. Since vote-buying is a one shot economic transaction, only occurring prior to or during elections, it is unlikely that the practice of vote-buying per se will lead to deleterious effects on the rule of law in the long run. In contrast, relational clientelism can foster a culture of impunity, making it difficult to punish corrupt officials by undermining the ability of citizens to hold public officials accountable through elections (Bardhan, 2022).

Relational clientelism may also have a negative effect on the rule of law through the practice of forbearance, defined as 'intentional and revocable government leniency towards violations of the law' (Holland, 2016). In a context characterized by relational

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[1] This type of clientelism is often referred to as 'spot-market' or electoral clientelism in the literature; see Nichter (2018) and Yíldírím and Kitschelt (2020).

[2] Since most elections in recent times use 'secret ballots', voters may choose to refuse to vote for the candidate or defect, leading to a classic commitment problem on the part of the politician. Yet, as Hicken and Nathan (2020) argue, even in the presence of imperfect monitoring and enforcement, vote-buying remains a more viable electoral strategy than plausible alternatives.

clientelism, politicians should be expected to be more likely to lean on law-enforcement authorities to selectively 'adjust' the rules (and the implications for their violations) in favour of specific groups of voters or potential voters (Holland, 2016; Freeze & Kitschelt, 2010; Lindberg, 2010).

An important feature of forbearance is its revocability—politicians can extend and retract forbearance at will. This implies that forbearance is more likely to be observed in relational clientelism. The contingent nature of the clientelist exchange in politics raises credible commitment problems, which political leaders try to address by practising forbearance as a vote-getting tool (Holland, 2017). Therefore, the practice of forbearance in relational clientelism tends to weaken the rule of law, leading to a deterioration in the quality of governance over time.

The above discussion suggests that while both dimensions of political clientelism – vote buying and relational clientelism would be associated with higher corruption, relational clientelism is more likely to have a negative effect on the rule of law than the prevalence of vote-buying. We examine the relationship between vote-buying and relational clientelism (measured by party linkages) on one hand and corruption and the rule of law on the other in the empirical analysis (Section 4). But first, in the next section, we describe the data, including a discussion of our dependent and independent variables.

3. Data and empirical specification

Our main analysis is based on a panel of 134 countries tracked from 1900 to 2018 drawn from the V-Dem data set (Coppedge et al., 2019b). This data set represents a valuable and unique tool to study the geopolitical distribution and the historical trends of political clientelism, corruption, and the rule of law. Without going into much detailed comparisons to previous studies here, V-Dem's data is quite unique with its global coverage from 1900 to the present, ratings provided by over 3,000 academics and other country experts, and use of Bayesian Item Response Theory modelling to address issues threatening valid across time- and space comparisons.

Previous studies have typically relied on sources for data on corruption with time series starting only in the mid-1990s for example. In addition, many of the previously used sources prioritize comparisons across countries at the expense of comparisons over time. For example, the World Governance Indicators (WGI) are calculated separately each year using varying sources while assuming that the global average is constant (Lambsdorff, 2007). In fact, Kaufmann, Kraay, Lora, and Pritchett (2002) estimate that half of the over-time variation in WGI is due to changes in the sources and coding rules used, rather than actual changes in corruption levels. Similarly, Treisman (2007) notes that the aggregation procedures and data sources of Transparency International's Corruption Perception Index' (CPI) have varied over time, and that substantive findings therefore are to some extent dependent on which version of the CPI is used. In short, the V-Dem data opens up for analyses of vastly greater time and space comparisons based on unparalleled amounts of data and methodological sophistication.

3.1. Clientelism-related variables

As argued by Stokes et al. (2013), clientelism is a multifaceted concept. According to the earliest definitions provided in the literature (Gouldner, 1960; Kaufman, 1974; Landé, 1977; Lemarchand, 1972; Lemarchand & Legg, 1972; Powell, 1970; Scott, 1972), clientelism can be broadly conceived as a 'dyadic alliance' between two groups of actors (the 'patrons' and the 'clients') featuring the following items: an unbalanced structure of power between them,

repeated face-to face transactions, a diffuse exchange, and the utility that both parts gain in engaging in the alliance.

Other scholars (e.g. Robinson & Verdier, 2013) have defined clientelism in terms of the exchange of a public sector job for political support, or in terms of an 'instrumental friendship' between the patron and the client, in which protection and security are given as a reward for personal loyalty and obedience (e.g. Scott, 1972).

Here we embrace a specific definition of *political* clientelism. Following Stokes (2009), we define it as the informal and particularistic distribution of public funds from leaders to voters in exchange for political support (Stokes, 2009). According to this definition, relational clientelism and vote (including turnout) buying are two key expressions of political clientelism. Relational clientelism often manifest throughout the election cycle in the form of diffuse and repeated exchanges of money, jobs, 'club goods' such as wells or bridges for the local community, or other benefits in exchange for political support. Vote buying clientelism is typically a more specific and 'one shot' in nature, and directed toward an individual voter.

The measure of *political* clientelism used in this analysis is an index ($v2xnp - client$) constructed by taking the reversed point estimates (so that higher scores correspond to more clientelism) from a Bayesian factor analysis model of the indicators extracted from the V-Dem data set: 'vote buying' ($v2elvotbuy - osp$) and 'party linkages' ($v2psprlnks - osp$).[3]

Vote buying is measured as the prevalence of vote or turnout buying during each election year. The level of vote- or turnout buying is an interval measure ranging from 0 (systemic vote- or turnout buying) to 4 (no evidence of either occurring).[4] Since this variable is only measured in the years in which elections takes place, we impute in the years in between elections the value of the variable as recorded in the last election year.

Relational Clientelism is proxied by the party linkages indicator. Here the focus is on the type of 'goods' that parties offer in exchange for political support and participation in party activities. The indicator is an interval measure on a scale from 0 to 4, mapping onto the original coding criteria for the experts' assessment of these party linkages. The original categories are: (0) 'clientelistic' (i.e. constituents are rewarded with goods, cash, and/or jobs); (1) 'mixed clientelistic and local collective'; (2) 'local collective' (e.g., wells, toilets, markets, roads, bridges, and local development); (3) 'mixed local collective and policy/programmatic'; and (4) 'policy/ programmatic' (i.e. constituents respond to a party's positions on national policies, general party programs, and visions for society).

As shown in Fig. 1, throughout the twentieth century, clientelistic practices have followed diverse patterns across regions.

In two regions (Latin America and South-East Asia) we find a steep decline in political clientelism from very high levels. The

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[3] Each of the original V-Dem indicators are coded by a minimum of five experts per country–year, who typically give their responses to questions on ordinal five-point scales. Using a Bayesian item response theory model, V-Dem aggregates experts' responses into country–year observations. Weighing each coder by a reliability parameter that is in part determined by their level of agreement with the other country coders, this model also seeks to diminish issues arising from differential item functioning and to ensure cross-coder consistency and intertemporal and cross-country comparability (Coppedge et al., 2019a; Pemstein et al., 2018).

[4] Specifically, this variable (as well as the other clientelism indicator used in this analysis) is a linear mapping of the posterior predictions from the measurement model, onto the original coding scale (see Coppedge et al., 2019a; Pemstein et al., 2018). To give an example of how this interval should be interpreted, take a value of 1.8 for the vote buying indicator (i.e. the value recorded in Thailand in 1992). This indicates that the median measurement model posterior predicted value is closer to the ordinal value of 2 (restricted evidence of vote buying: money and/or personal gifts are distributed by parties or candidates but these offerings are more about meeting an 'entry ticket' expectation and less about actual vote choice or turnout) than to the value of 1 (non-systematic but rather common vote buying efforts).
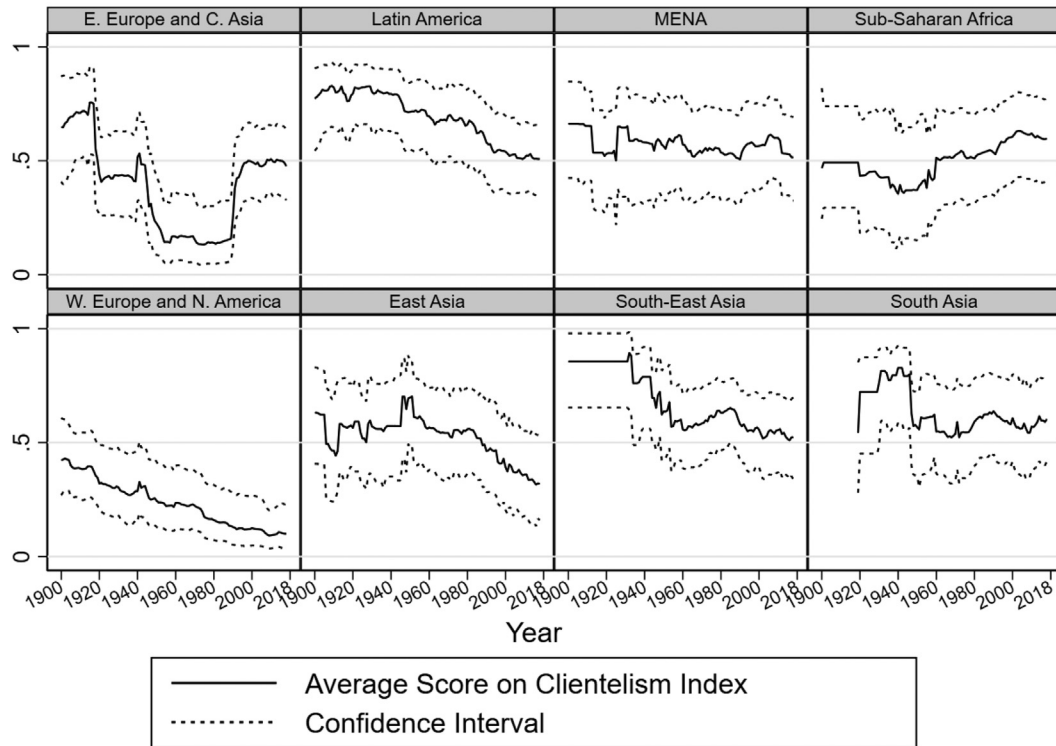
Fig. 1. The evolution of clientelism around the world. (Note: higher values of the index correspond to more political clientelism. Source: authors' elaboration based on the V-Dem data set (Coppedge et al., 2019b)).

South Asian region records declines over some periods of time and mildly increases or stagnates in others, resulting in small changes from the values observed in 1900 to those observed in the most recent years. Since the 1980s, clientelism has gradually increased in Sub-Saharan Africa. Conversely, over the same time period it has declined in East Asia. Eastern Europe and Central Asia have gone through a U-shaped trend, with a sharp decline up to the 1960s, followed by stagnation during the Soviet regime and by an upward trend in the 1990s that stabilized only in the most recent years. Last, Western Europe and North America display the lowest levels of political clientelism and a gradual decline.

Behind these average trends, there are varying patterns for each of the two sub-components of the clientelism index. In Sub-Saharan Africa the relative increase of political clientelism displayed in Fig. 1 mainly results from a steep increase in vote-buying practices (Fig. 2).

Conversely, in the MENA (Middle East and North Africa) region, we observe a steep reduction (i.e. a more clientelistic relationship between parties and the constituents) in the party linkage indicator up to the mid-1970s (Fig. 3).

In South Asia and in South-East Asia, vote-buying practices do not show any substantial sign of improvement over time. Until recently, these two regions appear as the worst-performing regions in the vote-buying dimension of political clientelism.

Political patronage in the party–constituents relationship appears, instead, particularly problematic in Latin America. Despite some mild improvements over the twentieth century, this region nowadays records an average score of 2 in the related indicator (i.e. parties tend to reward constituents with local collective goods). This is similar to the type of political patronage observed in poorer countries of Sub-Saharan Africa and MENA region.

It is worth to note that vote buying practices and relational clientelism do not necessarily coexist within the same country at a given point in time. Our data shows that around 26% of the country-year observations are characterized by the same level of intensities in the two dimensions of clientelism, that is by clientelistic party linkages and systematic vote buying or by policy/programmatic party linkages and no vote buying. For most of the observations, vote buying and political patronage co-existed at moderate levels in one dimension and moderate or high or low levels in the other. Yet, Fig. 4 shows that a relatively large share of observations feature pervasive clientelism in one dimension and absence of clientelism in the other, i.e. at the bottom and at the top of the distributions. At the bottom of the party linkages distribution we find historical examples such as Algeria under the 'Revolutionary Council' of Houari Boumédiènne or Romania under the repressive totalitarian regime of Ceaușescu which despite experiencing pervasive clientelistic partly linkages (i.e. constituents being rewarded by the parties with goods, cash, and/or jobs) recorded no evidence of vote buying. This is not unexpected since there were no competitive elections. Conversely, there are a substantial number of observations where systematic vote buying co-exist with policy or programmatic party-constituent linkages. One notable example in this regard is Argentina during the so-called 'infamous decade' (1930–1940) marked by pervasive electoral frauds and by massive investments in infrastructure to fuel the objective of import substitution industrialization.

3.2. Dependent variables

We focus on two key dependent variables: political corruption and rule of law. The former is an index formed by taking the point estimates from a Bayesian factor analysis model using six indicators: executive bribery, executive embezzlement, public sector

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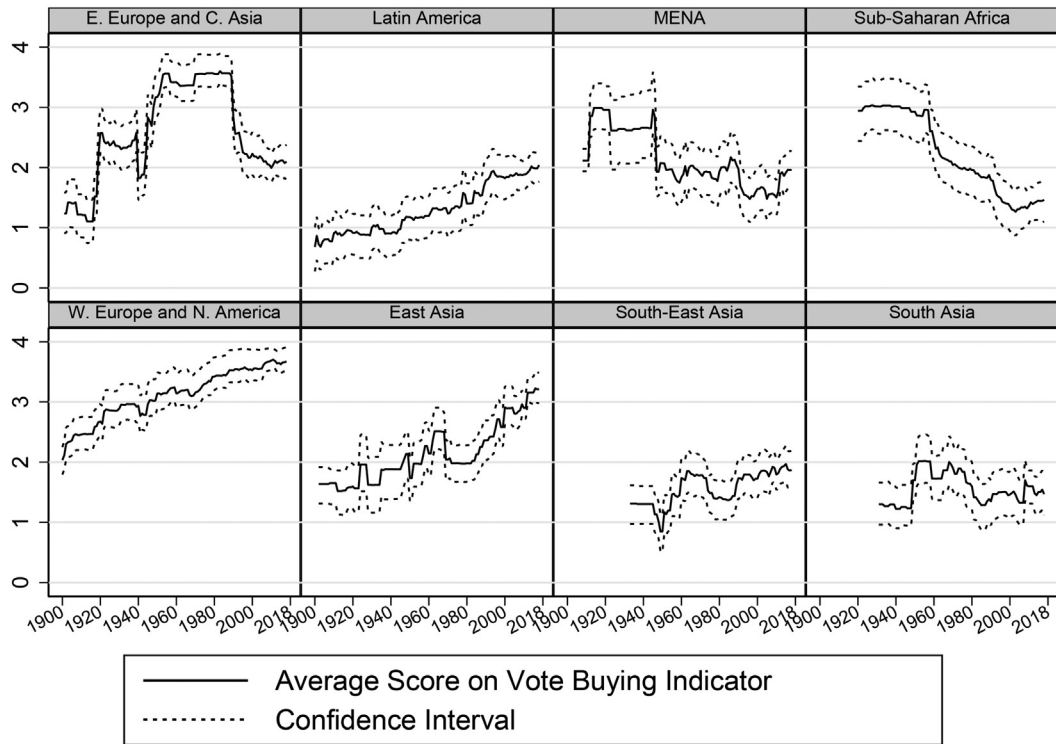
Fig. 2. Historical trends in vote buying in eight world regions. (Note: higher values of the indicator correspond to less vote buying. Source: authors' elaboration based on the V-Dem data set (Coppedge et al., 2019b)).
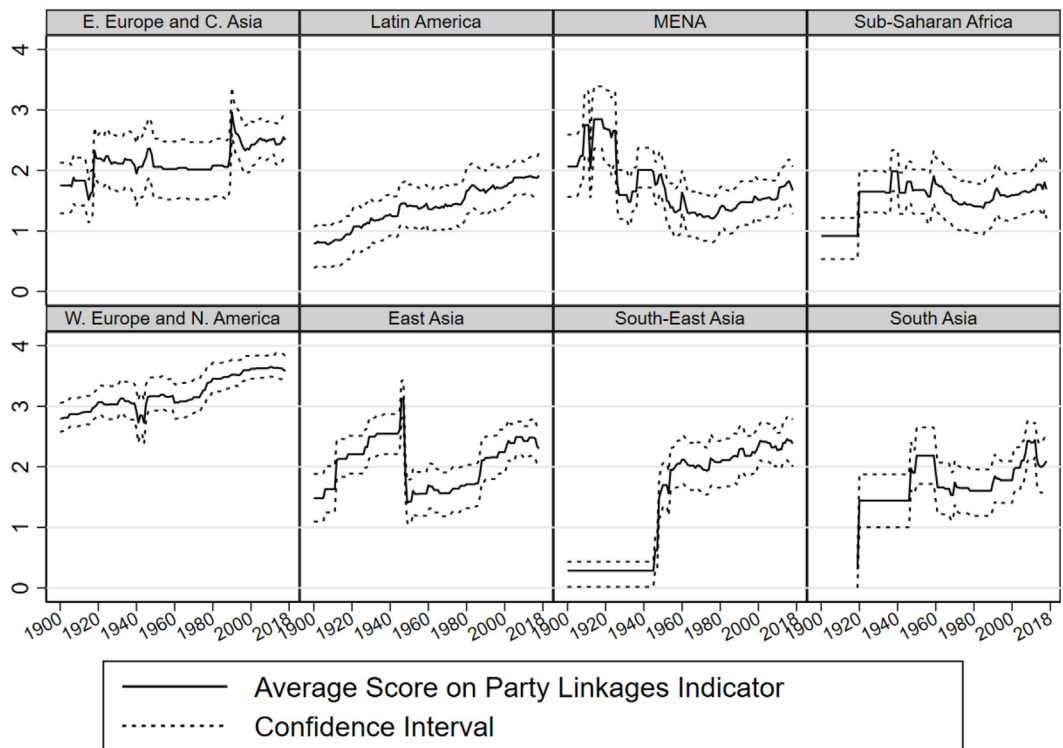
Fig. 3. Historical trends in clientelistic party linkages in eight world regions. (Note: higher values of the indicator correspond to less clientelistic party linkages. Source: authors' elaboration based on the V-Dem data set (Coppedge et al., 2019b)).
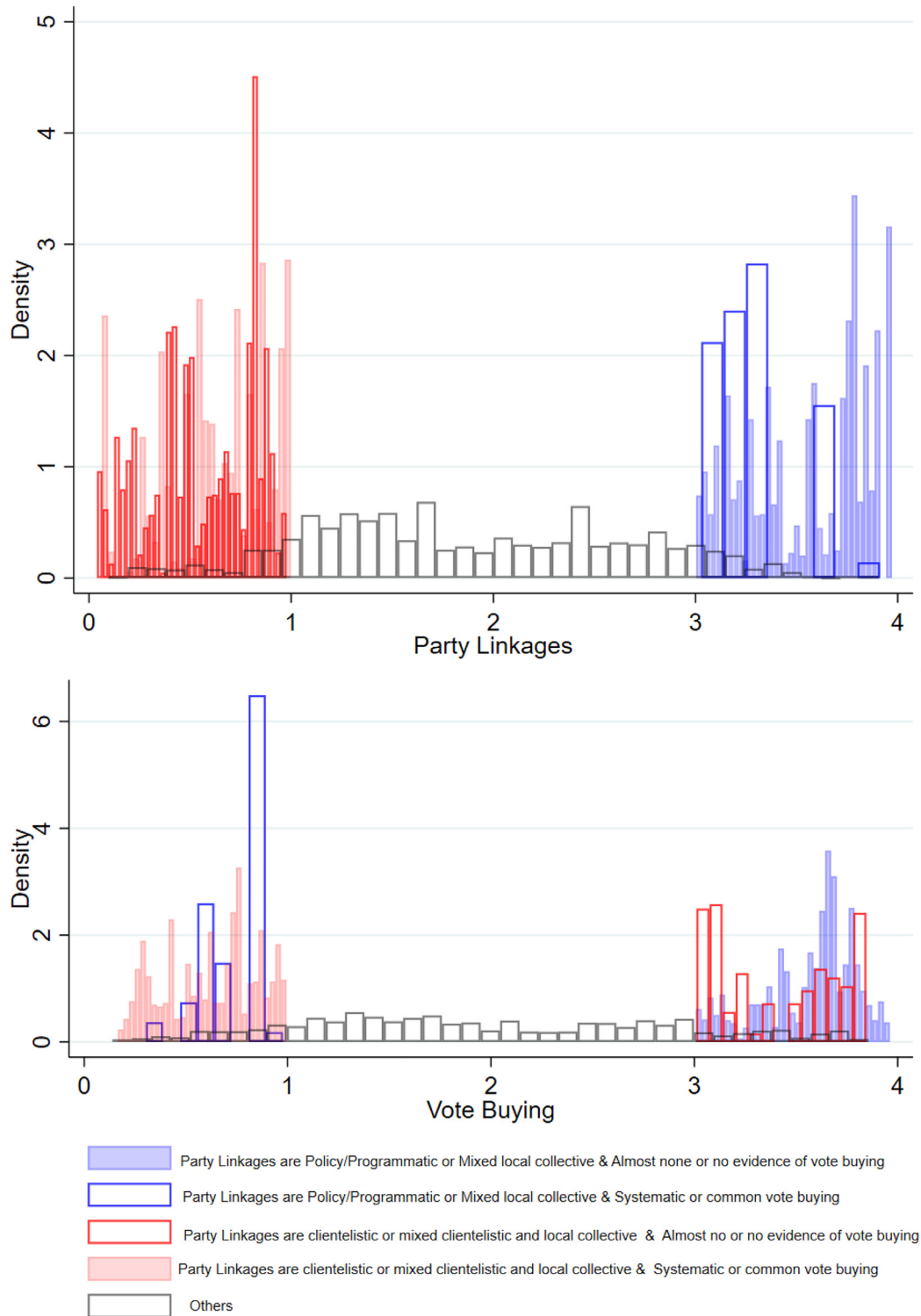
Fig. 4. Distribution of Party Linkages and Vote Buying by level of the other dimension. (Note: higher values of the indicators correspond to lower clientelism (i.e. less vote buying or more policy/programmatic party linkages). Source: authors' elaboration based on the V-Dem data set (Coppedge et al., 2019b)).

bribery, public sector embezzlement, legislative corruption, and judicial corruption.[5] The index, which is grounded on the definition of corruption as the use of public office for private gain, excludes

electoral irregularities (such as vote buying) and political patronage. Whereas vote buying and clientelistic party linkages might be perceived as a form of corruption for the 'irregular' use of resources that they entail, they are substantially different from political corruption. Here the distinguishing feature is the identity of the subjects related to clientelistic practices and to political corruption. Electoral frauds and clientelistic rewards to constituents are typically carried by indi-

Table 1
Average values of the political clientelism index and of its sub-components by quartiles of the dependent variable.

		Political clientelism	Vote buying	Party linkages	N
Corruption	First quartile	0.203	3.274	3.152	3,264
	Second quartile	0.455	2.260	2.081	3,271
	Third quartile	0.581	1.732	1.573	3,244
	Fourth quartile	0.738	1.117	1.190	3,269
Rule of Law	First quartile	0.687	1.422	1.228	3,258
	Second quartile	0.599	1.686	1.661	3,276
	Third quartile	0.491	1.962	1.887	3,285
	Fourth quartile	0.202	3.203	3.244	3,275

Source: authors' elaboration based on the V-Dem data set (Coppedge et al., 2019b).

viduals (brokers) or organizations (political parties). Political corruption instead involves executives (heads of government and state and cabinet ministers), legislators, judges, and bureaucrats.

The rule of law index measures the extent to which laws are transparently, independently, predictably, impartially, and equally enforced, and to which the actions of government officials comply with the law. The index is formed by taking the point estimates from a Bayesian factor analysis model of the following indicators: compliance with high court, compliance with judiciary, high court independence, lower court independence, the executive respects the constitution, rigorous and impartial public administration, transparent laws with predictable enforcement, access to justice for men, access to justice for women, judicial accountability, judicial corruption decisions, public sector corrupt exchanges, public sector theft, executive bribery and corrupt exchanges, and executive embezzlement and theft. It is worth noting that, according to this definition and this way of measuring the index, corruption appears as one dimension of rule of law[6]. In this sense, the rule of law index can be understood as a more generally proxy for governance quality.

In Table 1 we report the average values of our measures of political clientelism by quartiles or by category of the dependent variable. From this descriptive exercise, it clearly emerges that there is a negative (positive) gradient between corruption (rule of law) and political clientelism.

Observations in the lowest (highest) quartile of the corruption (rule of law) distribution record on average a score of 3 in the two indicators of political clientelism, implying limited use of vote buying and a tendency for programmatic responses of parties to their constituents.

On the contrary, in most corrupt countries and in countries with the weakest rule of law the mean values are around 1—that is, there is on average common use of vote buying practices and parties are linked to constituents who are rewarded by the parties with clientelistic and local collective goods.

3.3. Empirical specification

The benchmark model used for our main analysis is a linear regression model with panel corrected standard errors estimated by Prais-Winstein regression (Beck & Katz, 1995). With this model we allow for first-order autocorrelation within panels and control for heteroskedasticity by allowing each country to have a different variance of the disturbances. Further, we include in all our specifications country and year fixed effects. The former account for country-specific time-invariant factors (e.g., culture, ethnic composition, colonial history) that can simultaneously affect political

clientelism, corruption, and rule of law. Time fixed effects instead allow us to control for global time trends and common 'shocks' (e.g., world wars, global economic depressions) as well as country–time specific events (such as years of elections or ratification of international conventions and laws).

To avoid or minimize post-treatment bias, we depart from a parsimonious specification which includes the clientelism index or each of its two components along with the time and country dummies. Next, we estimate a baseline extensive specification controlling for three potential confounders: GDP per capita (in log), Democracy and Education. These three variables have been documented by the empirical and theoretical literature on governance to be strong predictors of corruption and rule of law. Beyond country-specific institutional, cultural and religious factors, such as colonial and religious traditions and ethno-linguistic homogeneity, the literature on the determinants of corruption and rule of law has indeed pointed to the importance of the economic and political institutions development in driving governance outcomes. To start with, income and education have been often used to control for structural differences as economic development progresses and they have been to a large extent found to be negatively correlated with governance (see, *inter alia*, Treisman, 2000; Paldam, 2002; Gundlach & Paldam, 2009; Serra, 2006 for a review). As argued in the seminal work of Lipset (1960), indeed, voters with more education and income are more willing and able to monitor politicians and public employees and to take action when these actors violate the law.

Second, other factors that also have been suggested to affect corruption are institutional and political. Notably, proxies like civil liberty, political freedom, political rights, freedom of the press and length of democratic regime, have been shown by the theoretical and empirical literature, to exert a strong influence on corruption (Brunetti & Weder, 2003; Persson & Tabellini, 2005; Kunicova & Rose-Ackerman, 2005; Chang & Golden, 2007; Brown, Touchton, & Whitford, 2011). However, while theory predicts that democracy should lead to less corruption, recent empirical research has documented an inverted curvilinear relationship between corruption and democracy. As argued in the extensive review of the literature conducted by McMann, Seim, Teorell, and Lindberg (2020), it has been increasingly observed that highly democratic and autocratic countries seem to experience low corruption levels. Instead, high corruption levels are associated with modest levels of democracy. We therefore control for countries' levels and experience of democracy by adding the electoral democracy index from V-Dem,[7] and its quadratic form to control for the non-linearities in

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[6] Namely, most of the indicators used for the computation of the corruption index (i.e. executive bribery, executive embezzlement, public sector bribery and embezzlement, and judicial corruption) are also entered for the computation of the rule of law index.

[7] The democracy index from V-Dem, captures 'electoral democracy'-that is, the core value of making rulers responsive to citizens, achieved through electoral competition for the electorate's approval under circumstances when suffrage is extensive; political and civil society organizations can operate freely; elections are not marred by fraud or systematic irregularities; and elections affect the composition of the chief executive of the country. For more discussion of this index, see Teorell, Coppedge, Lindberg, and Skaaning (2019).

the relationship between democracy and our dependent variables. Furthermore, we introduce the stock of democracy as an additional control along with the current level of democracy (which is a flow measure) as the democratic stock provides additional information on the country's political history that is not captured by the present level of democracy or regime type (Edgell, Wilson, Boese, & and Grahn, 2020).[8] The introduction of the 'stock of democracy' variable allows us to control for the mediating effect of the age of democracy in shaping the relationship between our key dependent variables and democracy. As argued by Keefer (2007), indeed, it is experience with democratic institutions, rather than its current levels, that matters for rent seeking activities and rule of law. It is worth to note that controlling for the stock of democracy is particularly important when assessing the relationship between clientelism and governance. As argued in Keefer and Vlaicu (2008), indeed, it is precisely in young democracies that politicians can strategically rely on clientelistic practices to make credible appeals to voters.

We also report two additional specifications to guard against unobservable counfounders. The first is a more conservative specification that uses changes in corruption or rule of law from the previous year as the dependent variable and includes a lagged dependent variable as the regressor. The second one adds to the baseline model three additional time-varying control variables which, according to various authors, are key drivers of governance: trade openness, inequality (proxied by rural inequality) and civil war. The motivation for the inclusion of the first two variables is grounded on the argument that corruption is a function of motivations and opportunities (Klitgaard, 1988; Rose-Ackerman, 1978).

Restrictions on foreign trade entailing, for example, the use of licences to import can create distortions and offer an opportunity to bribe resulting in increased corruption (see, for instance, Ades & Di Tella, 1997; Treisman, 2000; Fisman & Gatti, 2002; Herzfeld & Weiss, 2003; Knack & Azfar, 2003; Persson, Tabellini, & Trebbi, 2003).

Inequality is also argued to negatively affect governance outcomes by distorting incentives and increasing the temptation to make illicit gains (Paldam, 2002). Specifically, in a highly unequal society the elite is likely to engage in corruption to maintain its privileged position (Banerjee, 1997; Hellman, Jones, & Kaufmann, 2000; Glaeser, Scheinkman, & Shleifer, 2003) and use bribery or connections to influence law-implementing processes (bureaucratic corruption) and to buy favorable interpretations of the law (judicial corruption).[9]

As a measure of inequality, we use the Vanhanen's estimates of the percent of family farms, which is the share of all farms that are owned and operated by small farmers (with no more than four employees).[10] This variable, which—contrary to the Gini index—is measured for a relatively larger number of countries starting from

the beginning of the twentieth century, allows us to keep our sample as large as possible.[11]

Last, we include civil war as a proxy for political instability and violence. The underlying argument here is that incumbents will tend to be more corrupt where high political instability lowers the probability of future rents appropriation (Boix, Adsera, & Payne, 2003; Treisman, 2000).[12]

4. Results

We first present the results from our four core specifications using the clientelism index as our key variable of interest. Next, we show and discuss our findings on the relationship between governance outcomes and political patronage or vote buying. Finally we discuss several tests which have been conducted to validate the robustness of our main findings.

4.1. Main results

Our main results on the relationship between clientelism and governance outcomes are shown in Table 2. Columns (1) to (4) and (5) to (8) report, respectively for corruption and rule of law, our parsimonious, benchmark, conservative and extended specifications.

Our results suggest that political clientelism tends to increase corruption and reduce the rule of law. According to the specifications displayed in columns (1) and (5), the difference between minimum and maximum on the political clientelism index (i.e. the index goes from 0 to 1) is associated with a difference on the corruption index by around 18 per cent and a difference in the rule of law index by around 19 per cent. These are rather significant magnitudes, corresponding, for example, to the difference in corruption levels between one of the 10% least corrupt observations, such as Finland in 2018 and Georgia in the immediate afterwards of the Shevardnadze's presidency, whose disputed parliamentary elections and electoral frauds triggered the Rose Revolution. Analogously, a 19 per cent increase in the rule of law index is comparable to the difference between Chile in 1924 (when the country experienced political instability leading to the end of its pseudo-parliamentary system) and Italy in 2010 (one of the observations in the top 25 per cent of the distribution of the rule of law index). Once controlling for the economic and political triggers of governance (Col.2 and 6), the magnitude of the coefficient on clientelism changes only slightly for the corruption regressions but decreases by around 30 % when we consider rule of law as dependent variable.[13] The specification shown in columns (3) and (7) uses changes in corruption or rule of law from the previous year as the dependent variable and includes a lagged dependent variable as regressor. The results from this more conservative model, which further accounts for the presence of co-integrated trends, confirm the statistically significant relationship between clientelism and governance outcomes. Yet, the magnitude of the coefficient of interest is rather small, implying a one–unit change in clientelism being associated in the short-run with a 2 % change in corruption or rule of law.

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[8] The variable is computed as the sum of the value of electoral democracy at time t and at time $t - 1$, minus 10 per cent of depreciation at time $t - 1$, which discounts more distant history of democracy.

[9] A related argument is that the relatively large size of poor population is likely to demand more extensive redistribution through higher levels of progressive taxation. These re-distributive pressures can in turn fuel the motivation for the privileged segments of the population to use political corruption to lower the tax rates and use bureaucratic corruption to avoid tax payment. These implications can be particularly strong in contexts of high land inequality. Indeed as argued in Ansell and Samuels (2010), 'Since land is more or less fixed in supply, high land inequality means the elite will be wary of higher taxation or even expropriation of their fixed asset'.

[10] As argued in Boix (2008), the percentage of family farms captures the degree of concentration and therefore inequality in the ownership of land. Similarly, the study by Easterly (2007) which empirically estimates the relationship between inequality and institutional quality, shows that the family farm measure is a good predictor of income inequality.

[11] However, as robustness checks we also ran our regressions using the Gini index from the World Income Inequality Database. Whether sample size dramatically drops from 7,456 to 4,539 observations, the main findings are substantially confirmed.

[12] For a detailed description and summary statistics of the control variables, see Appendix A and Table B.1 of Appendix B.

[13] More specifically, as it can be observed in Tables B.2,B.3 in Appendix B where we present our regression results for the successive inclusion of controls, the coefficient on clientelism decreases substantially once including democracy, suggesting that part of the total effect of clientelism is actually channeled through the way clientelism undermines the consolidation of sound democractic regimes.

Table 2
Clientelism, Corruption and Rule of Law. Panel Fixed-Effects estimates.

	Corruption				Rule of Law			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Clientelism index	0.180***	0.168***	0.024***	0.170***	−0.192***	−0.134***	−0.023***	−0.121***
	(0.010)	(0.010)	(0.003)	(0.013)	(0.011)	(0.009)	(0.003)	(0.012)
Ln GDP per capita		−0.025***	−0.003**	−0.012**		0.025***	0.004***	0.016***
		(0.005)	(0.001)	(0.006)		(0.005)	(0.001)	(0.005)
Electoral Democracy		0.028	−0.139***	−0.004		0.539***	0.708***	0.632***
		(0.022)	(0.017)	(0.027)		(0.024)	(0.020)	(0.029)
Electoral Democracy Sq.		−0.085***	−0.017**	−0.035		−0.286***	−0.040***	−0.382***
		(0.022)	(0.007)	(0.025)		(0.023)	(0.008)	(0.027)
Stock of Democracy		−0.027***	0.077***	−0.044***		0.067***	−0.332***	0.091***
		(0.008)	(0.009)	(0.009)		(0.009)	(0.011)	(0.011)
Education		−0.015***	−0.001	0.003		−0.004	−0.001	−0.017***
		(0.004)	(0.001)	(0.005)		(0.003)	(0.001)	(0.004)
Openness				−0.000				0.000***
				(0.000)				(0.000)
Rural inequality				0.001**				−0.000
				(0.000)				(0.000)
Civil War				−0.003				−0.003
				(0.003)				(0.003)
Political corruption index$_{t-1}$			−0.074***					
			(0.006)					
Rule of law index$_{t-1}$							−0.089***	
							(0.005)	
Observations	10,688	10,688	10,500	7,456	10,688	10,688	10,500	7,456
R-squared	0.494	0.550	0.075	0.673	0.466	0.711	0.229	0.793
Rho	0.923	0.911	0.117	0.891	0.928	0.877	0.125	0.855
Number of country	134	134	134	127	134	134	134	127
Country and Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time period	1901–2018	1901–2018	1901–2018	1901–2006	1901–2018	1901–2018	1901–2018	1901–2006

Notes: Prais-Winsten regression with heteroskedastic panels corrected standard errors reported in parentheses * p<0.1; ** p<0.05; *** p<0.01. Constant omitted. Models (3) and (7) use Change (from t-1 to t) in Corruption or in Rule of Law as dependent variable. Source: authors' elaboration based on the V-Dem data set (Coppedge et al., 2019b).

Table 3
Party Linkages, Corruption and Rule of Law. Panel Fixed-Effects estimates.

	Corruption				Rule of Law			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Party Linkages	−0.051***	−0.051***	−0.010***	−0.052***	0.055***	0.044***	0.009***	0.049***
	(0.002)	(0.002)	(0.001)	(0.003)	(0.002)	(0.002)	(0.001)	(0.003)
Ln GDP per capita		−0.025***	−0.002*	−0.013**		0.023***	0.003***	0.015***
		(0.005)	(0.001)	(0.006)		(0.005)	(0.001)	(0.005)
Electoral Democracy		0.064***	−0.124***	0.049*		0.510***	0.695***	0.573***
		(0.022)	(0.017)	(0.026)		(0.023)	(0.020)	(0.028)
Electoral Democracy Sq.		−0.142***	−0.034***	−0.105***		−0.242***	−0.028***	−0.310***
		(0.022)	(0.007)	(0.025)		(0.023)	(0.008)	(0.026)
Stock of Democracy		−0.021***	0.079***	−0.035***		0.060***	−0.332***	0.082***
		(0.007)	(0.008)	(0.009)		(0.008)	(0.010)	(0.010)
Education		−0.013***	−0.001	0.001		−0.006*	−0.001	−0.017***
		(0.004)	(0.001)	(0.006)		(0.003)	(0.001)	(0.004)
Openness				−0.000				0.000***
				(0.000)				(0.000)
Rural inequality				0.001**				−0.000
				(0.000)				(0.000)
Civil War				−0.002				−0.004
				(0.003)				(0.003)
Political corruption index$_{t-1}$			−0.082***					
			(0.005)					
Rule of law index$_{t-1}$							−0.095***	
							(0.005)	
Observations	10,688	10,688	10,500	7,456	10,688	10,688	10,500	7,456
R-squared	0.493	0.563	0.086	0.648	0.492	0.707	0.234	0.804
Rho	0.927	0.912	0.125	0.904	0.925	0.884	0.130	0.853
Number of country	134	134	134	127	134	134	134	127
Country and Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time period	1901–2018	1901–2018	1901–2018	1901–2006	1901–2018	1901–2018	1901–2018	1901–2006

Notes: Prais-Winsten regression with heteroskedastic panels corrected standard errors reported in parentheses * p<0.1; ** p<0.05; *** p<0.01. Constant omitted. Models (3) and (7) use Change (from t-1 to t) in Corruption or in Rule of Law as dependent variable. Source: authors' elaboration based on the V-Dem data set (Coppedge et al., 2019b).

Table 4
Vote Buying, Corruption and Rule of Law. Panel Fixed-Effects estimates.

	Corruption				Rule of Law			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Vote Buying	−0.032***	−0.031***	−0.006***	−0.025***	0.020***	0.023***	0.005***	0.016***
	(0.002)	(0.002)	(0.001)	(0.003)	(0.003)	(0.002)	(0.001)	(0.002)
Ln GDP per capita		−0.025***	−0.003**	−0.017***		0.022***	0.004***	0.016***
		(0.005)	(0.001)	(0.006)		(0.005)	(0.001)	(0.006)
Electoral Democracy		−0.024	−0.170***	−0.025		0.599***	0.786***	0.629***
		(0.024)	(0.018)	(0.028)		(0.026)	(0.020)	(0.030)
Electoral Democracy Sq.		−0.051**	0.003	−0.029		−0.336***	−0.062***	−0.373***
		(0.024)	(0.008)	(0.026)		(0.025)	(0.009)	(0.028)
Stock of Democracy		−0.030***	0.082***	−0.048***		0.076***	−0.361***	0.100***
		(0.008)	(0.009)	(0.010)		(0.009)	(0.011)	(0.011)
Education		−0.010**	−0.000	−0.003		−0.005	−0.001	−0.010**
		(0.005)	(0.001)	(0.006)		(0.004)	(0.001)	(0.004)
Openness				−0.001***				0.001***
				(0.000)				(0.000)
Rural inequality				0.000				−0.000
				(0.000)				(0.000)
Civil War				−0.001				−0.004
				(0.003)				(0.003)
Political corruption index$_{t-1}$			−0.080***					
			(0.006)					
Rule of law index$_{t-1}$							−0.092***	
							(0.006)	
Observations	9,846	9,846	9,652	7,073	9,846	9,846	9,652	7,073
R-squared	0.570	0.606	0.082	0.687	0.448	0.725	0.250	0.795
Rho	0.911	0.904	0.117	0.891	0.929	0.871	0.109	0.854
Number of country	133	133	133	126	133	133	133	126
Country and Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time period	1901–2018	1901–2018	1901–2018	1901–2006	1901–2018	1901–2018	1901–2018	1901–2006

Notes: Prais-Winsten regression with heteroskedastic panels corrected standard errors reported in parentheses * p<0.1; ** p<0.05; *** p<0.01. Constant omitted. Models (3) and (7) use Change (from t-1 to t) in Corruption or in Rule of Law as dependent variable. Source: authors' elaboration based on the V-Dem data set (Coppedge et al., 2019b).

Our next step is to investigate which dimension of political clientelism matters the most in driving the results shown above. We report in Table 3 and 4 the results for the party linkages and vote-buying indicators obtained relying on the same models and specifications illustrated in Table 2.

The estimated coefficients that are comparable, in terms of statistical significance, to the coefficients on the political clientelism index suggest that non-programmatic party linkages and vote buying are not equally important in driving the relationship between political clientelism and our two governance outcomes.

First, clientelistic ties between parties and their constituents, indeed, seem to exert—compared to vote buying—a relative larger influence on countries' corruption and rule of law. A one-unit difference in the party linkages indicator (e.g. moving from non-clientelistic party linkages to a mix of programmatic and local collective rewards in the party–constituents relationship) increases corruption and decreases the rule of law index by around 5 per cent, which accounts for about one-fourth of the total effect of the political clientelism index.

Second, we also observe that, while political patronage is similarly associated with corruption and with rule of law, vote buying appears to exert a relatively larger influence on corruption than on rule of law, with its coefficient being, on average across the various specifications for the corruption regressions, around 30 percent larger than the coefficients in rule of law regressions.

These findings may be explained by the fact that while vote buying and party linkages can be seen as clientelistic strategies that are supplementary to each other by politicians to obtain electoral support from a set of voters, they differ in the timing of the clientelist exchange, which may have implications for how these two strategies affect the rule of law. The first strategy—vote buying—involves a pre-election transfer to induce citizens to vote for the party. The second strategy—party linkages—captures the post-election delivery of goods and services conditional on political support in the election. While both are expected to have

similar negative effects on corruption, the post-election delivery of goods and services to specific voters in return for political support delays the building of an impersonal bureaucracy, with well-defined rules and modes of functioning (Bardhan, 2022). This implies that -as suggested by our findings- the effect of political clientelism through party linkages may have a larger negative effect on the rule of law than through vote buying.

An interesting question to this regard is whether these relatively larger correlations between *political* clientelism and relational clientelism are actually driven by the concurrent experience of vote buying practices. As we previously have shown, whether historically most countries have experienced at specific points in time both clientelistic party linkages and vote buying, for many observations these two dimensions of clientelism have not necessarily coexisted, especially at the bottom of the distribution of these two indicators. We checked therefore if there are negative synergies between the two dimensions of clientelism leading to a culture of impunity and forbearance and run our regressions of rule of law and party linkages in two separate samples featured with either absent to limited vote buying or systematic to moderate vote buying. By comparing the coefficients on party linkages in the two groups, we observe that their difference is rather small (see Fig. B.1 in Appendix B). According to our benchmark specification, for instance, the coefficient of party linkages in the sample of countries featuring absent or limited vote buying represents around 75% of the size of the coefficient for the group featuring systematic vote buying. Hence, even in absence of vote buying, relational clientelism alone appears to be 'powerful' enough to foster a culture of impunity and undermine the rule of law.

4.2. Robustness

We tested the robustness of our results vis-à-vis several potential threats to the validity of our estimates. First, over this long historical period considered, many countries underwent specific

shocks in different time periods. For instance, former colonies in Asia and Africa achieved independence from their European colonial rulers at different points in time over a quite long period, spanning from 1945 to 1980. Hence, we re-estimated the model adding interaction terms of country and decade dummies, which account for specific shocks experienced by each country. The results of this exercise, reported in Tables B.8,B.9,B.10 in Appendix B, confirm our main findings, either in terms of statistical significance and coefficients' and standard errors' size.

Second, the unbalanced nature of our historical dataset implies that some countries, notably the ones belonging to the Western hemisphere, are observed over a longer time horizon compared to other countries in other regions[14] and, as such, might therefore drive our results. We consider the geopolitical classification of our countries and run our four models separately for six regions of the world to test whether our results are driven by the experiences of specific regions. The results provided in Figs. B.2,B.3,B.4 in Appendix B show that the coefficients on clientelism are of similar order of magnitude across most of the regions. For instance, taking our benchmark model as a reference, these coefficients range between 0.12 and 0.19 in the corruption regressions and between 0.12 and 0.20 in the rule of law regressions. These magnitudes, moreover, are of a similar order compared to the ones of our main results. Analogously, the coefficients on party linkages have a similar magnitude compared to our estimated 5% change in the governance indices.[15] Interestingly, there are a few exceptions such as the Eastern Europe and Central Asia region where we find that a 1-unit change in clientelism is associated with a 37% change in corruption. This result seems to be mainly driven by the relatively larger influence exerted by vote buying in this region (the estimated coefficient is around 0.05 and it is -in terms of magnitude and statistical significance- well above the coefficients in other regions).

Third, as clientelistic practices are repeated transactions, and as corruption and rule of law tend to evolve slowly over time, the effect of political clientelism on the dependent variables may be felt over a longer time horizon. Moreover, time-variant unobserved confounders or co-integrated trends can generate a spurious relationship between political clientelism and our dependent variables. These two issues may not be sufficiently addressed by the use of Prais-Winsten model. As, indeed, recently shown in Plümper and Troeger (2019), the mean, minimum and maximum bias in the right-hand side variable of interest tend to be relatively larger in Prais Winsten regressions than in truly dynamic panel model such as the autoregressive distributed lag (ADL) models. The ADL model has several advantages as it is able to provide consistent coefficients despite the possible presence of endogeneity because it includes lags of dependent and independent variables and it can be used even with variables with different order of integration irrespective of whether the variables under study are I (0) or I (1) (Pesaran, Shin, & Smith, 1999). Moreover, both the short-run and long-run effects can be estimated simultaneously from a dataset, which, like ours, has a large cross-section and a long time dimensions.[16] Hence, we complement our main results by providing additional estimates of the coefficients of our key independent variables in our benchmark specification[17] using a pooled mean group (PMG) estimator and a dynamic fixed effects (DFE) model with error correction and clustered standard errors.[18]

Our results, reported in Tables 5–7 show that the error correction coefficients are significantly negative, indicating the existence of a stable and converging long-run relationship between clientelism and governance outcomes. The short-run coefficients, although being statistically significant, are generally smaller than our estimated coefficients in the Prais-Winsten regressions. The difference in the coefficients' size is especially large when considering rule of law as dependent variable. In this latter case, we also observe that, when we restrict the speed of adjustment coefficient and the short-run coefficients to be equal, in the DFE model the long-run coefficient is rather small and not significantly different than zero at the conventional levels of 5% and 1%. The bulk of this effect appears to be driven by the vote buying dimension of clientelism. Indeed, contrary to clientelistic party linkages, whose short- and long-run coefficients display a significant relationship with both rule of law and corruption, cross-countries differences in vote buying are only related to long run differences in corruption, but not to rule of law.

These findings support our main results showing a rather larger influence of relational clientelism on the rule of law.

A fourth issue pertains to the potential coder-induced bias. Our core results could indeed be upward biased since some V-Dem coders are rating multiple V-Dem surveys and thus scoring countries on both of the indicators included in the left- and right-hand side variables. If some proportion of coders rate variables on both sides to reflect an underlying latent dimension, this would result in a spurious, upward bias. This issue has been investigated, however, with a focus on closely related variables measuring corruption and democracy, for example, including rerunning all results with all coders rating variables on both sides of the equation removed and finding no evidence of such bias (McMann et al., 2020; McMann et al., 2022). In addition, several studies have indicated the robustness of the V-Dem ratings to coder biases and mistakes (e.g., Marquardt, Pemstein, Seim, & Wang, 2019; Marquardt, 2020).

To test the robustness of our results against the potential threat of coder-induced bias, we replicate our analysis by replacing our core dependent variables with alternative proxies available from other sources. To be noted that, since no measures of corruption or governance quality are available for such a long historical period as the one covered in the V-Dem database, our panel is restricted to a shorter time series, starting from 1984. Tables B.11,B.12,B.13, B.14,B.15,B.16 in Appendix B report the results obtained using the ICRG Indicator of Government Quality and the Bayesian Corruption Index, available in the Quality of Government (QOG) database (Dahlberg, Holmberg, Rothstein, Pachon, & and Svensson, 2019), as two additional proxies for governance. The IRCG Indicator of Government Quality, scaled 0–1,[19] is constructed as the mean

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[14] As shown in Table A.1 in Appendix A, many developing countries (especially those in the African continent) are observed only from the onset of decolonization.

[15] These coefficients are in the range 0.03–0.07 for rule of law and 0.02–0.05 for corruption (see Fig. B.3 in Appendix B).

[16] It is precisely because of the long and wide panel structure of our data that alternative dynamic panel models' estimators, such as system GMM, the subsystem limited information maximum-likelihood or the Hsiao et al.'s maximum likelihood estimators, are not applied. These estimators require indeed a balanced panel and/or a relatively shorter time dimension. Therefore, unless we re-shape the data operating on a shorter time horizon, at the cost of neglecting a strength of our historical data, these estimators are not suitable to fully exploit the strength of our panel.

[17] To be noted that to purge from any multi-collinearity issue we do not include in these regressions electoral democracy squared and the stock of democracy. Whether these are important controls from a theoretical perspective, their inclusion (as shown in Tables B.2, B.3 and B.4 in Appendix B) have minimal impact on the coefficients of our main variables of interest.

[18] Pesaran et al. (1999) suggest three different dynamic panel estimators, which are consistent when both T and N are large: the mean-group (MG), the pooled-mean group (PMG) and the dynamic fixed effects (DFE) estimators. With the MG estimator both the slope and intercepts are allowed to vary across countries. Instead, the PMG and the DFE estimator rely respectively on the assumption of long-run slope homogeneity and of short- and long-run slope homogeneity. These models yield efficient and consistent estimates when the restrictions on the slope(s) homogeneity are true and so not rejected empirically. To that end, we applied the Hausman test to determine the most appropriate of the three estimators. The Hausman test's results of MG vs. PMG and MG vs. DFE fail to reject the null in each case, indicating that both PMG and DFE provide consistent and more efficient estimates of the long-run coefficients.

[19] Higher values indicate higher quality of government.

Table 5
Clientelism, Corruption and Rule of Law. Pooled Mean Group and Dynamic fixed effects estimates.

	Corruption		Rule of Law	
	-DFE-	-PMG-	-DFE-	-PMG-
Long-Run coefficients:				
Clientelism index	0.19***	0.095***	−0.120*	−0.200***
	(0.058)	(0.018)	(0.060)	(0.019)
Ln GDP per capita	−0.049*	−0.0087	0.031	0.016**
	(0.023)	(0.0045)	(0.020)	(0.0054)
Electoral Democracy	−0.066	−0.130***	0.430***	0.340***
	(0.048)	(0.011)	(0.052)	(0.019)
Education	0.018*	0.0035**	−0.015*	−0.011***
	(0.0074)	(0.0013)	(0.0070)	(0.0018)
Short-Run coefficients:				
Clientelism index	0.13***	0.080***	−0.095***	−0.077***
	(0.027)	(0.020)	(0.025)	(0.021)
Ln GDP per capita	−0.0093	−0.0030	0.0039	0.0094
	(0.0068)	(0.0066)	(0.0072)	(0.0093)
Electoral Democracy	−0.062**	0.018	0.350***	0.27***
	(0.020)	(0.034)	(0.034)	(0.031)
Education	0.021*	0.0047	−0.020*	0.00016
	(0.0089)	(0.030)	(0.0088)	(0.028)
Error Correction Term	−0.050***	−0.088***	−0.060***	−0.095***
	(0.0045)	(0.0092)	(0.0061)	(0.011)
Observations	10,500	10,500	10,500	10,500
Number of country	134	134	134	134
Time period	1901–2018	1901–2018	1901–2018	1901–2018

Notes: Standard errors are reported in parentheses. * p<0.1; ** p<0.05; *** p<0.01. Standard errors in DFE regressions are clustered by country. Source: authors' elaboration based on the V-Dem data set (Coppedge et al., 2019b).

Table 6
Party Linkages, Corruption and Rule of Law. Pooled Mean Group and Dynamic fixed effects estimates.

	Corruption		Rule of Law	
	-DFE-	-PMG-	-DFE-	-PMG-
Long-Run coefficients:				
Party Linkages	−0.10***	−0.071***	0.074***	0.074***
	(0.016)	(0.0051)	(0.013)	(0.0060)
Ln GDP per capita	−0.043	−0.0015	0.025	0.0016
	(0.023)	(0.0047)	(0.017)	(0.0073)
Electoral Democracy	0.0040	−0.21***	0.38***	0.64***
	(0.059)	(0.014)	(0.055)	(0.021)
Education	0.019*	0.0029*	−0.016**	−0.025***
	(0.0085)	(0.0014)	(0.0063)	(0.0026)
Short-Run coefficients:				
Party Linkages	−0.039***	−0.030***	0.037***	0.024*
	(0.0061)	(0.0081)	(0.0067)	(0.0099)
Ln GDP per capita	−0.012	−0.0081	0.0059	0.0086
	(0.0070)	(0.0077)	(0.0073)	(0.0082)
Electoral Democracy	−0.065***	0.0055	0.34***	0.25***
	(0.019)	(0.037)	(0.033)	(0.032)
Education	0.023*	0.0093	−0.022*	−0.0073
	(0.0089)	(0.035)	(0.0088)	(0.029)
Error Correction Term	−0.050***	−0.076***	−0.063***	−0.081***
	(0.0047)	(0.0088)	(0.0057)	(0.010)
Observations	10,500	10,500	10,500	10,500
Number of country	134	134	134	134
Time period	1901–2018	1901–2018	1901–2018	1901–2018

Notes: Standard errors are reported in parentheses. * p<0.1; ** p<0.05; *** p<0.01. Standard errors in DFE regressions are clustered by country. Source: authors' elaboration based on the V-Dem data set (Coppedge et al., 2019b).

value of the ICRG variables 'Corruption', 'Law and Order', and 'Bureaucracy Quality'.

The Bayesian Corruption Index (Standaert, 2015), scaled 0–100,[20] is a composite index of the overall level of *perceived* corruption. More specifically, this index combines the information of 20 different surveys administered to people, companies, NGOs, and officials working both in governmental and supra-governmental organizations and more than 80 different survey questions that cover the perceived level of corruption.

Our results confirm our main findings even if the substantive effect is relatively small. Overall, the more political clientelism is widespread in a country, the worse is the level of government quality and the higher is the level of perceived corruption. A one-unit difference in the political clientelism index is related to a decrease in governance quality by about 3 – 5.6 %. This magnitude

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[20] An increase in the index corresponds to a rise in the level of corruption. The scale is set such that zero corresponds to a situation where all surveys say that there is absolutely no corruption and one hundred corresponds to all surveys saying that corruption is as bad as it gets according to their scale (Standaert, 2015).

Table 7
Vote Buying, Corruption and Rule of Law. Pooled Mean Group and Dynamic fixed effects estimates.

	Corruption		Rule of Law	
	-DFE-	-PMG-	-DFE-	-PMG-
Long-Run coefficients:				
Vote Buying	−0.057***	−0.029***	0.027	−0.0077
	(0.014)	(0.0034)	(0.014)	(0.0042)
Ln GDP per capita	−0.041	−0.0075	0.029	0.013**
	(0.023)	(0.0045)	(0.021)	(0.0041)
Electoral Democracy	−0.11*	−0.0021	0.47***	0.72***
	(0.043)	(0.0082)	(0.051)	(0.024)
Education	0.018**	0.0061***	−0.018**	−0.030***
	(0.0070)	(0.00097)	(0.0068)	(0.0026)
Short-Run coefficients:				
Vote Buying	−0.019**	−0.019***	0.011	0.015**
	(0.0065)	(0.0051)	(0.0057)	(0.0057)
Ln GDP per capita	−0.010	−0.014	0.00078	0.010
	(0.0077)	(0.0099)	(0.0082)	(0.011)
Electoral Democracy	−0.080***	−0.049	0.36***	0.34***
	(0.020)	(0.031)	(0.034)	(0.086)
Education	0.019*	0.010	−0.021*	−0.026
	(0.0097)	(0.029)	(0.0096)	(0.027)
Error Correction Term	−0.057***	−0.082***	−0.067***	−0.079***
	(0.0045)	(0.010)	(0.0065)	(0.011)
Observations	9,652	9,652	9,652	9,652
Number of country	134	134	134	134
Time period	1901–2018	1901–2018	1901–2018	1901–2018

Notes: Standard errors are reported in parentheses. * p<0.1; ** p<0.05; *** p<0.01. Standard errors in DFE regressions are clustered by country. Constant omitted. Source: authors' elaboration based on the V-Dem data set (Coppedge et al., 2019b).

is statistically significant but substantively very small as it corresponds to around 30 per cent of the coefficients reported in our main results. Interestingly, most of the effect is conveyed through vote buying, whose coefficients- differently from party linkages-exhibits in all specification a statistical significance at conventional levels (see Tables B.12 and B.13 in Appendix B).

Country–year observations with higher levels of political clientelism are associated moreover with higher levels of perceived corruption (see Table B.14) and the magnitude of the coefficient is comparable to that of our main results. Likewise, we find that vote buying and relational clientelism are significantly associated, respectively, with a 2.9 % and a 5% increase in perceived corruption (Col. 4 of Table B.15 and B.16). This provides support to our argument that these manifestations of clientelism, although not necessarily involving corrupt exchanges per se, can be associated with rent seeking activities to finance the relatively higher costs of maintaining parties and financing electoral campaigns, leading therefore to increased corruption.

Last, we assess the robustness of our results with regard to the reliability of our data, specifically concerning the potential bias streaming from experts' evaluations of the early 20th century's clientelistic practices. We therefore replicate our analysis covering only the last thirty years. The results, reported in Tables B.17,B.18, B.19 in Appendix B, remain stable in terms of statistical significance, although the magnitude of the coefficients appear, especially in the regressions with the clientelism index, substantively larger than the one estimated from our longer panel dataset. It could be argued with some plausibility that the country experts coding V-Dem's indicators of "subaltern" phenomena such as clientelism and corruption, have more and more accurate information about the last thirty years than on historical periods. Hence, this robustness test indicates that our estimates based on the full sample are, if anything, at the lower end and probably even underestimations.

5. Concluding remarks

It is widely believed that political clientelism has adverse development outcomes—as Stokes (2009) notes, 'if most scholars are

right, political clientelism slows economic development, vitiates democracy, and allows dictators to hold on to power longer than they otherwise would'. In this paper, we examine the relationship between political clientelism and two specific governance outcomes: corruption and the rule of law. By considering two distinct dimensions of political clientelism, such as vote buying and political patronage, and using a panel of 134 countries over the period 1900–2018, we show that increases in clientelism significantly correlate with increased political corruption, and weaker rule of law. While both political patronage and vote buying are similarly related to higher corruption, the negative relationship between political clientelism and rule of law is mainly driven by non-programmatic party linkages rather than the practice of vote buying. Our results are robust to alternative measures of governance and different empirical specifications.

A defining feature of economic and political development is the move from personalized to impersonal systems of governance (North, Wallis, & Weingast, 2009), which is closely linked to a shift away from non-programmatic to programmatic modes of distribution. While there may be static redistributive benefits of political clientelism if particularistic benefits go mostly to the poor, this paper shows that it can have long-run negative effects on governance quality. While economic development itself may contribute to the decline of political clientelism, our findings suggest that in regions of the world where clientelistic politics remains prevalent (as in MENA, Sub-Saharan Africa, and South Asia), supply-side interventions such as programmatic social welfare programmes and media campaigns against vote buying may be needed to bring about an erosion of political clientelism.

CRediT authorship contribution statement

Staffan I. Lindberg: Resources, Writing – original draft, Writing – review & editing. **Maria C. Lo Bue:** Conceptualization, Methodology, Formal analysis, Writing – original draft, Writing – review & editing. **Kunal Sen:** Conceptualization, Methodology, Writing – original draft, Writing – review & editing.

Declaration of Competing Interest

Acknowledgements

Appendix A. Definitions of variables

Political clientelism index. To what extent are politics based on clientelistic relationships? Clientelistic relationships include the targeted, contingent distribution of resources (goods, services, jobs, money, etc.) in exchange for political support. The index is formed by taking the reversed point estimates (so that higher scores mean more clientelism) from a Bayesian factor analysis model of the indicators for vote buying ($v2elvotbuy$) and whether party linkages are programmatic or clientelistic ($v2psprlnks$). Since $v2elvotbuy$ is only measured in the years in which elections take place, we impute using the most recent known value. For years before an election ever took place (meaning there is no most recent known value) we impute up to ten previous years using the value of $v2elvotbuy$ in the first election conducted. Source: authors' computation based on the V-Dem data set (Coppedge et al., 2019a).

Party linkages ($v2psprlnks - osp$). Linearized original scale posterior prediction of the ordinal variable 'party linkages'. The original ordinal variable is based on the following question: 'Among the major parties, what is the main or most common form of linkage to their constituents? A party–constituent linkage refers to the sort of "good" that the party offers in exchange for political support and participation in party activities. Responses: (0) Clientelistic. Constituents are rewarded with goods, cash, and/or jobs. (1) Mixed clientelistic and local collective. (2) Local collective. Constituents are rewarded with local collective goods, e.g., wells, toilets, markets, roads, bridges, and local development. (3) Mixed local collective and policy/programmatic. (4) Policy/programmatic. Constituents respond to a party's positions on national policies, general party programs, and visions for society.' Source: V-Dem data set (Coppedge et al., 2019a; Coppedge et al., 2019b).

Election vote buying ($v2elvotbuy - osp$). Linearized original scale posterior prediction of the ordinal variable 'vote buying'. The original ordinal variable is based on the following question: 'In this national election, was there evidence of vote and/or turnout buying? Vote and turnout buying refers to the distribution of money or gifts to individuals, families, or small groups in order to influence their decision to vote/not vote or whom to vote for. It does not include legislation targeted at specific constituencies, i.e., "porkbarrel" legislation. 0: Yes. There was systematic, widespread, and almost nationwide vote/turnout buying by almost all parties and candidates. 1: Yes, some. There were non-systematic but rather common vote-buying efforts, even if only in some parts of the country or by one or a few parties. 2: Restricted. Money and/or personal gifts were distributed by parties or candidates, but these offerings were more about meeting an "entry-ticket" expectation and less about actual vote choice or turnout, even if a smaller number of individuals may also be persuaded. 3: Almost none.

There was limited use of money and personal gifts, or these attempts were limited to a few small areas of the country. In all, they probably affected less than a few percent of voters. 4: None. There was no evidence of vote/turnout buying. Source: V-Dem data set (Coppedge et al., 2019a; Coppedge et al., 2019b).

Political corruption index ($v2x - corr$). The directionality of the V-Dem corruption index runs from less corrupt to more corrupt. The index is arrived at by taking the average of (a) the public sector corruption index ($v2x - pubcorr$); (b) the executive corruption index ($v2x - execorr$); (c) the indicator for legislative corruption ($v2lgcrrpt$); and (d) the indicator for judicial corruption ($v2jucorrdc$). These four different government spheres are weighted equally in the resulting index. Missing values for countries with no legislature are replaced by only taking the average of a, b, and d. Source: V-Dem data set (Coppedge et al., 2019a; Coppedge et al., 2019b).

Rule of law index ($v2x - rule$). To what extent are laws transparently, independently, predictably, impartially, and equally enforced, and to what extent do the actions of government officials comply with the law? The index is formed by taking the point estimates from a Bayesian factor analysis model of the indicators for compliance with high courts ($v2juhccomp$), compliance with the judiciary ($v2jucomp$), high court independence ($v2juhcind$), lower court independence ($v2juncind$), the executive respects the constitution ($v2exrescon$), rigorous and impartial public administration ($v2clrspct$), transparent laws with predictable enforcement ($v2cltrnslw$), access to justice for men ($v2clacjstm$), access to justice for women ($v2clacjstw$), judicial accountability ($v2juaccnt$), judicial corruption decisions ($v2jucorrdc$), public sector corrupt exchanges ($v2excrptps$), public sector theft ($v2exthftps$), executive bribery and corrupt exchanges ($v2exbribe$), and executive embezzlement and theft ($v2exembez$). Source: V-Dem data set (Coppedge et al., 2019a; Coppedge et al., 2019b).

Electoral democracy index ($v2x - polyarchy$). The democracy index from V-dem, capturing 'electoral democracy'—that is, the core value of making rulers responsive to citizens, achieved through electoral competition for the electorate's approval under circumstances when suffrage is extensive; political and civil society organizations can operate freely; elections are clean and not marred by fraud or systematic irregularities; and elections affect the composition of the chief executive of the country. In between elections, there is freedom of expression and an independent media capable of presenting alternative views on matters of political relevance. The index is formed by taking the average of, on the one hand, the weighted average of the indices measuring freedom of association thick ($v2x - frassoc - thick$), clean elections ($v2xel - frefair$), freedom of expression ($v2x - freexp - altinf$), elected officials ($v2x - elecoff$), and suffrage ($v2x - suffr$) and, on the other, the five-way multiplicative interaction between those indices. Source: V-Dem data set (Coppedge et al., 2019a; Coppedge et al., 2019b).

Stock of democracy. This variable is computed as the sum of the value of electoral democracy at time t and at time $t-1$, minus 10 per cent of depreciation at time $t-1$. Source: authors' computation based on the V-Dem data set (Coppedge et al., 2019a; Coppedge et al., 2019b).

ICRG Indicator of Government Quality. The mean value of the ICRG variables 'Corruption', 'Law and Order', and 'Bureaucracy Quality', scaled 0–1. Higher values indicate higher quality of government. Source: Dahlberg et al. (2019).

Bayesian Corruption Index. Composite index of the perceived overall level of corruption: with corruption refered to as the "abuse of public power for private gain". It combines the information of 20 different surveys and more than 80 different survey questions that cover the perceived level of corruption. The absolute scale of the

Table A.1
Country years included in this study.

Country	Period	Country	Period
Afghanistan	1950–2018	Ecuador	1900–2018
Algeria	1950–2018	Egypt	1950–2018
Angola	1950–2018	El Salvador	1920–2018
Argentina	1900–2018	Estonia	1990–2018
Armenia	1990–2018	Eswatini	1950–2018
Australia	1900–2018	Finland	1900–2018
Austria	1900–2018	France	1900–2018
Azerbaijan	1990–2018	Gabon	1960–2018
Bangladesh	1980–2018	Georgia	1990–2018
Barbados	1950–2018	German Dem. Republic	1950–1989
Belarus	1990–2018	Germany	1900–2018
Belgium	1900–2018	Ghana	1950–2018
Benin	1950–2018	Greece	1900–2018
Bolivia	1900–2018	Guatemala	1920–2018
Botswana	1950–2018	Guinea	1960–2018
Brazil	1900–2018	Haiti	1945–2018
Bulgaria	1905–2018	Honduras	1945–2018
Burkina Faso	1960–2018	Hungary	1920–2018
Burma/Myanmar	1901–2018	Iceland	1950–2018
Burundi	1960–2018	India	1900–2018
Cambodia	1950–2018	Iran	1950–2018
Cameroon	1970–2018	Iraq	1950–2018
Canada	1900–2018	Ireland	1921–2018
Central African Republic	1960–2018	Israel	1950–2018
Chad	1960–2018	Italy	1900–2018
Chile	1900–2018	Ivory Coast	1950–2018
China	1900–2018	Jamaica	1900–2018
Colombia	1900–2018	Japan	1900–2018
Costa Rica	1920–2018	Jordan	1950–2018
Cuba	1902–2018	Kazakhstan	1991–2018
Cyprus	1950–2018	Kenya	1950–2018
Czech Republic	1970–2018	Kyrgyzstan	1990–2018
Dem. Republic of the Congo	1950–2018	Laos	1950–2018
Denmark	1900–2018	Latvia	1990–2018
Dominican Republic	1950–2018	Lebanon	1950–2018
Lesotho	1950–2018	Senegal	1950–2018
Liberia	1950–2018	Seychelles	1950–2018
Libya	1960–2018	Sierra Leone	1950–2018
Lithuania	1990–2018	Singapore	1900–2018
Madagascar	1950–2018	Slovakia	2000–2018
Malawi	1950–2018	South Africa	1900–2018
Malaysia	1900–2018	South Korea	1911–2018
Mali	1950–2018	Spain	1900–2018
Mauritania	1950–2018	Sri Lanka	1900–2018
Mauritius	1950–2018	Sweden	1900–2018
Mexico	1900–2018	Switzerland	1900–2018
Moldova	1990–2018	Syria	1950–2018
Morocco	1950–2018	Tajikistan	1990–2018
Mozambique	1950–2018	Tanzania	1950–2018
Namibia	1950–2018	Thailand	1913–2018
Nepal	1960–2018	The Gambia	1950–2018
Netherlands	1900–2018	Togo	1951–2018
New Zealand	1900–2018	Trinidad and Tobago	1950–2018
Nicaragua	1920–2018	Tunisia	1950–2018
Niger	1950–2018	Turkey	1913–2018
Nigeria	1950–2018	Uganda	1950–2018
North Korea	1990–2018	Ukraine	1990–2018
Norway	1900–2018	United Kingdom	1900–2018
Pakistan	1950–2018	United States of America	1900–2018
Panama	1910–2018	Uruguay	1900–2018
Paraguay	1939–2018	Uzbekistan	1990–2018
Peru	1900–2018	Venezuela	1900–2018
Philippines	1902–2018	Vietnam	1950–2018
Poland	1920–2018	Zambia	1950–2018
Portugal	1900–2018	Zimbabwe	1950–2018
Republic of the Congo	1950–2018		
Romania	1900–2018		
Russia	1900–2018		
Rwanda	1950–2018		
Saudi Arabia	1950–2018		

BCI index was obtained by rescaling all the individual survey data such that zero corresponds to the lowest possible level of corruption and 1 to the highest one. The BCI index is then rescaled such that when all underlying indicators are zero (one), the expected value of the BCI index is zero (hundred). Source: Standaert (2015) and Dahlberg et al. (2019).

Ln GDP per capita. Real, PPP-adjusted GDP per capita, log-transformed. Source: the Maddison Project Database (Bolt et al., 2018), retrieved from the V-Dem database (Coppedge et al., 2019a).

Openness. Imports and exports divided by GDP. Source: Barbieri and Keshk (2016) and the Maddison Project Database

(Bolt et al., 2018), retrieved from the V-Dem database (Coppedge et al., 2019a).

Rural inequality. The percentage of (cultivated) land area composed of family farms. Source: Vanhanen (1997).

Civil war. Was there a civil war? 1 if yes and 0 otherwise. Civil war defined as at least one intra-state war with at least 1,000 battle deaths for each country–year. Source: Haber and Menaldo (2011), retrieved from the V-Dem database (Coppedge et al., 2019a).

Education. Average years of education among citizens older than 15 years. Source: Clio Infra (lclio-infra.eu), drawing on

Mitchell (1998a, 1998b, 1998c), the US Census Bureau, UNESCO (n.d.), Földvári and van Leeuwen (2014), and Didenko et al. (2012). Retrieved from the V-Dem database (Coppedge et al., 2019a).

Appendix B. Additional results

See Figs. B.1–B.4 and Tables B.1–B.19.
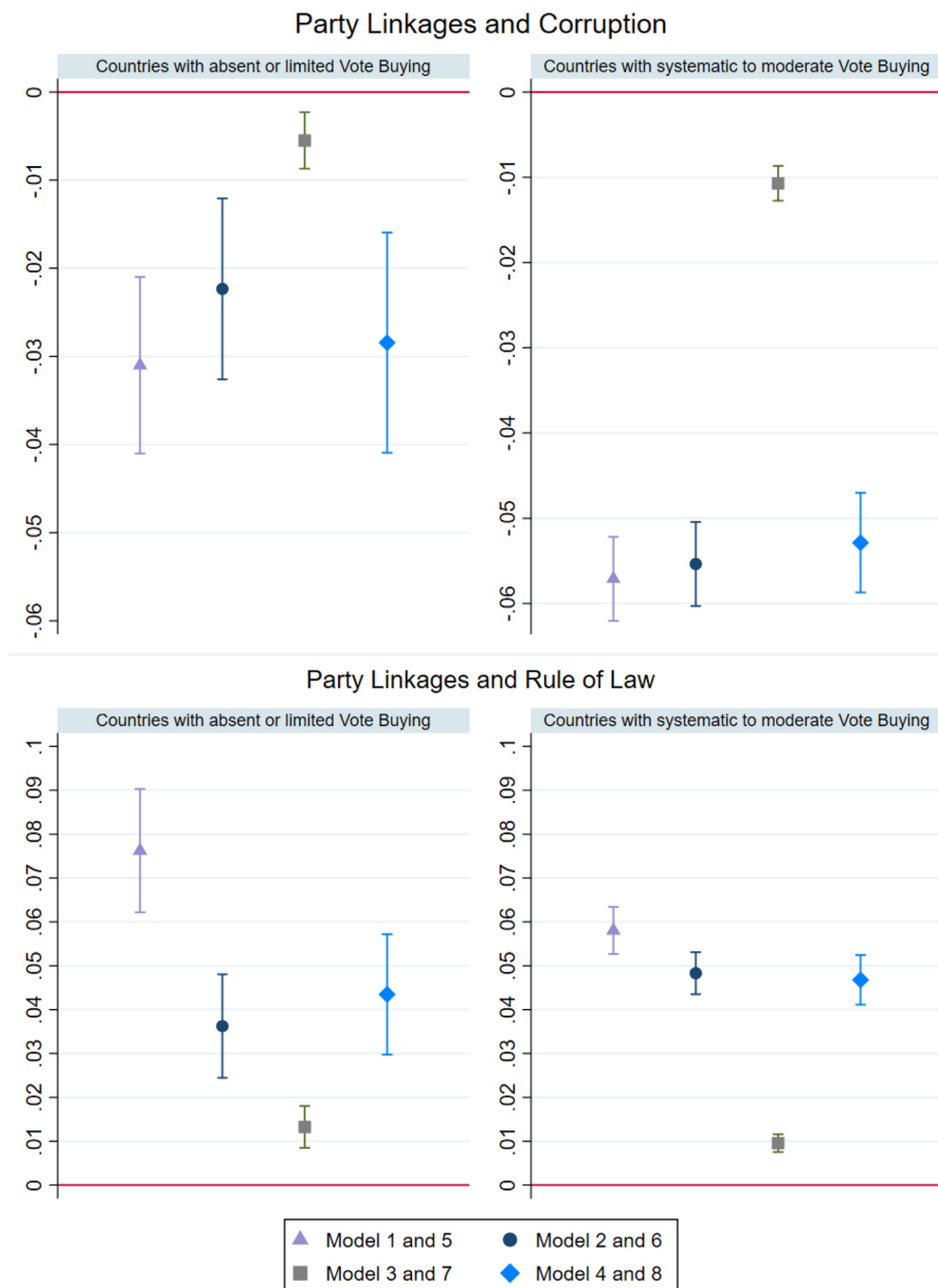
Fig. B.1. Overview of the coefficients on 'party linkages' across different model specifications in countries with high vs. low levels of vote buying. (Note: Coefficients and confidence intervals of 'party linkages' in Prais-Winsten regressions with heteroskedastic panels corrected standard errors runned on groups of countries featuring high versus low levels of vote buying. Country and time fixed effects included. Source: authors' elaboration based on the V-Dem data set (Coppedge et al., 2019b)).
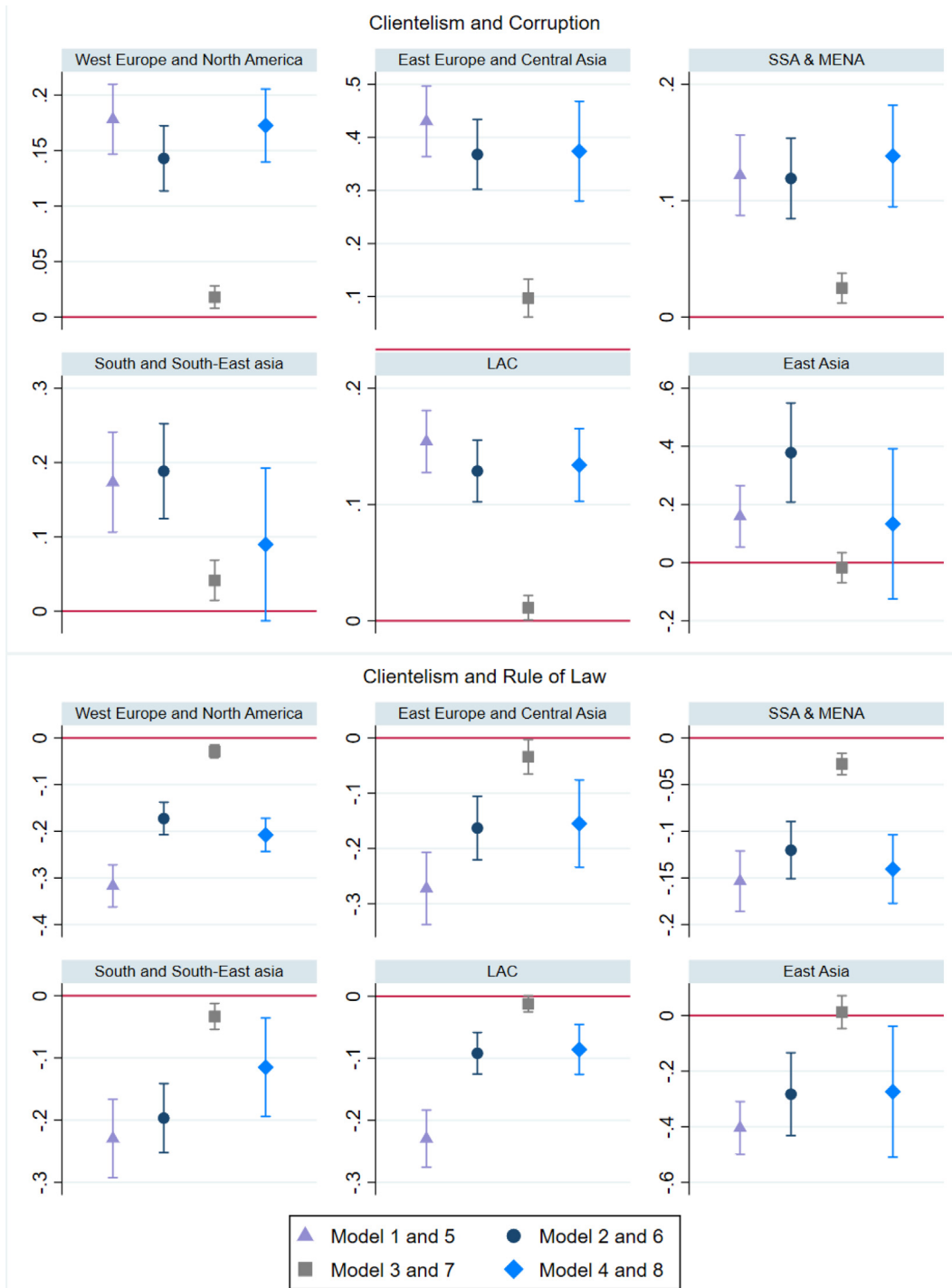
Fig. B.2. Assessing heterogeneity by regions: an overview of the coefficients on the political clientelism index across different model specifications. (Note: Coefficients of clientelism in Prais-Winsten regressions with heteroskedastic panels corrected standard errors runned on different regional groups. Country and Time fixed effects included. Source: authors' elaboration based on the V-Dem data set (Coppedge et al., 2019b)).
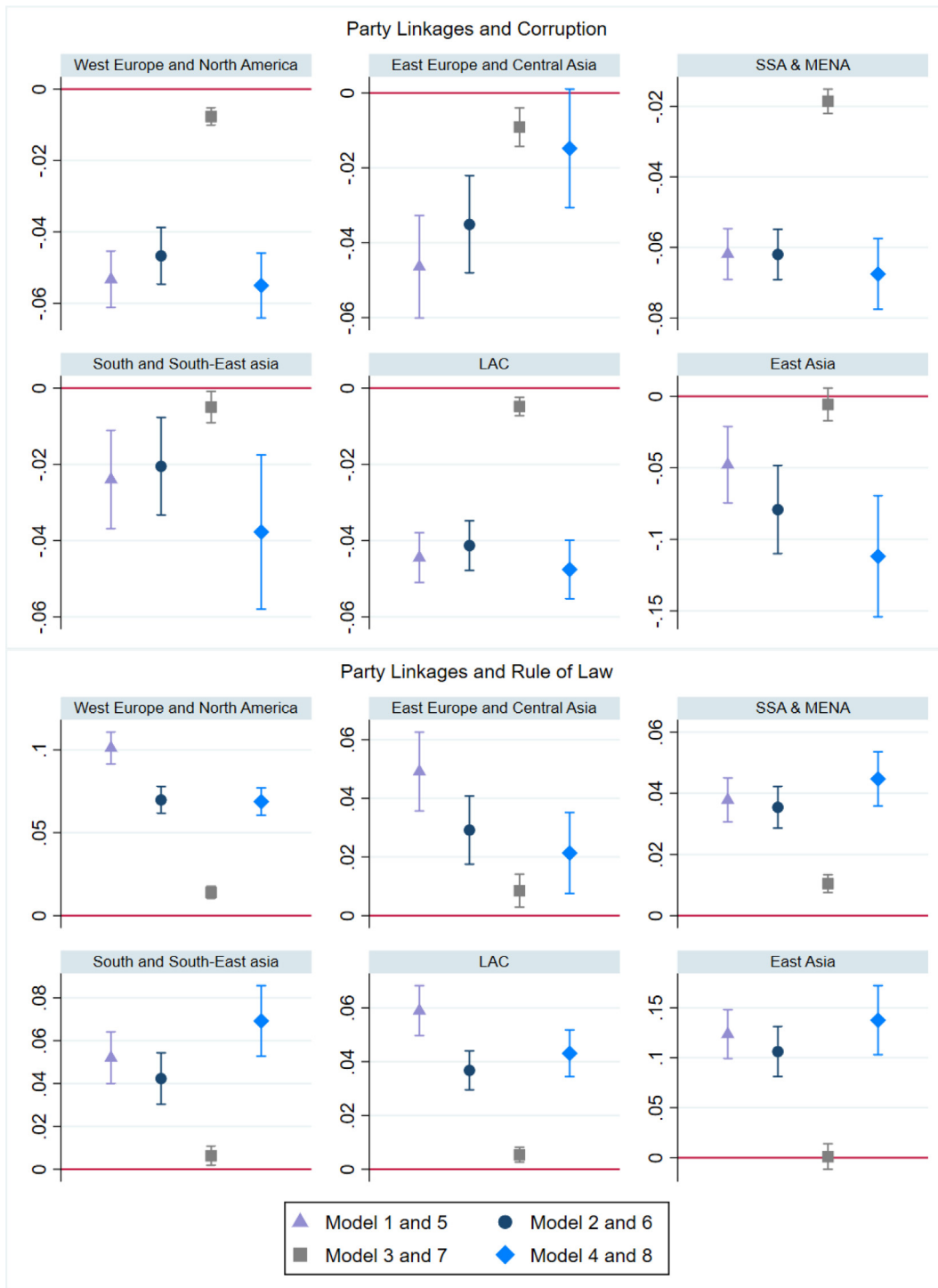
Fig. B.3. Assessing heterogeneity by regions: an overview of the coefficients on the party linkages indicator across different model specifications. (Note: Coefficients of party linkages in Prais-Winsten regressions with heteroskedastic panels corrected standard errors runned on different regional groups. Country and Time fixed effects included. Source: authors' elaboration based on the V-Dem data set (Coppedge et al., 2019b)).
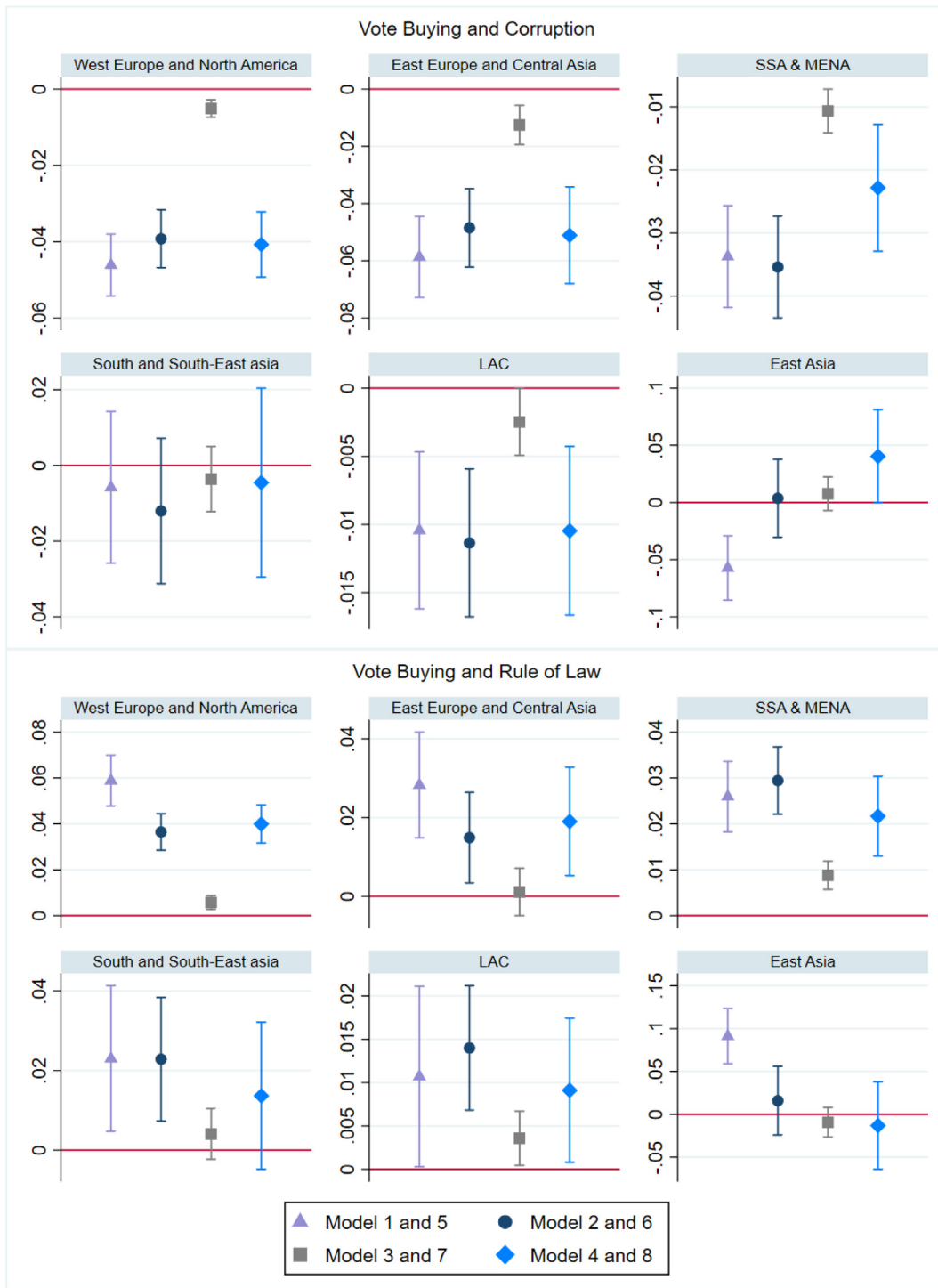
Fig. B.4. Assessing heterogeneity by regions: an overview of the coefficients on the vote buying indicator across different model specifications. (Note: Coefficients of vote buying in Prais-Winsten regressions with heteroskedastic panels corrected standard errors runned on different regional groups. Country and Time fixed effects included. Source: authors' elaboration based on the V-Dem data set (Coppedge et al., 2019b)).

Table B.1

Summary statistics.

Variable	Mean	Std dev.	Min.	Max.	N
Clientelism index	0.485	0.264	0.029	0.969	10,688
Party linkages indicator	2.144	1.114	0.039	3.971	10,688
Vote-buying indicator	2.138	1.107	0.137	3.961	9,846
Political corruption index	0.435	0.303	0.002	0.967	10,688
Rule of law index	0.556	0.314	0.010	0.999	10,688
Electoral democracy index	0.409	0.282	0.008	0.919	10,688
Ln GDP per capita	8.436	1.007	5.92	11.35	10,688
Openness	3.518	16.167	0	455.029	8,929
Education	5.458	3.423	0.040	13.61	10,688
Rural inequality	39.977	23.751	0	99	7,958
Civil war	0.065	0.246	0	1	8,120
IRCG Indicator of Government Quality	0.548	0.226	0.042	1	3,828

Source: authors' elaboration on various sources (see citations in Appendix A).

Table B.2

Clientelism and Corruption. Panel Fixed-Effects estimates. Results for the successive inclusions of controls.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Clientelism index	0.180***	0.180***	0.166***	0.168***	0.169***	0.168***	0.171***	0.169***	0.170***
	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)	(0.011)	(0.013)	(0.013)
Ln GDP per capita		−0.030***	−0.028***	−0.029***	−0.029***	−0.025***	−0.016***	−0.013**	−0.012**
		(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.006)	(0.006)
Electoral Democracy			−0.072***	0.001	0.032	0.028	0.015	0.002	−0.004
			(0.008)	(0.021)	(0.022)	(0.022)	(0.025)	(0.026)	(0.027)
Electoral Democracy Sq.				−0.092***	−0.090***	−0.085***	−0.063***	−0.041*	−0.035
				(0.022)	(0.022)	(0.022)	(0.024)	(0.025)	(0.025)
Stock of Democracy					−0.027***	−0.027***	−0.036***	−0.043***	−0.044***
					(0.008)	(0.008)	(0.009)	(0.009)	(0.009)
Education						−0.015***	−0.001	0.003	0.003
						(0.004)	(0.005)	(0.005)	(0.005)
Openness							−0.000	−0.000	−0.000
							(0.000)	(0.000)	(0.000)
Rural inequality								0.001**	0.001**
								(0.000)	(0.000)
Civil War									−0.003
									(0.003)
Observations	10,688	10,688	10,688	10,688	10,688	10,688	8,929	7,584	7,456
R-squared	0.494	0.510	0.526	0.542	0.550	0.550	0.620	0.671	0.673
Rho	0.923	0.920	0.917	0.913	0.911	0.911	0.901	0.892	0.891
Number of country id	134	134	134	134	134	134	130	127	127
Country and Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time period	1901–2018	1901–2018	1901–2018	1901–2018	1901–2018	1901–2018	1901–2014	1901–2006	1901–2006

Notes:Prais-Winsten regression with heteroskedastic panels corrected standard errors reported in parentheses. * p<0.1; ** p<0.05; *** p<0.01. Constant omitted. Source: authors' elaboration based on the V-Dem data set (Coppedge et al., 2019b).

Table B.3
Clientelism and Rule of Law. Panel Fixed-Effects estimates. Results for the successive inclusions of controls.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Clientelism index	−0.192***	−0.189***	−0.126***	−0.132***	−0.132***	−0.134***	−0.122***	−0.122***	−0.121***
	(0.011)	(0.011)	(0.010)	(0.010)	(0.009)	(0.009)	(0.010)	(0.011)	(0.012)
Ln GDP per capita		0.026***	0.022***	0.024***	0.024***	0.025***	0.021***	0.018***	0.016***
		(0.005)	(0.004)	(0.004)	(0.004)	(0.005)	(0.005)	(0.005)	(0.005)
Electoral Democracy			0.394***	0.616***	0.542***	0.539***	0.592***	0.625***	0.632***
			(0.009)	(0.022)	(0.024)	(0.024)	(0.027)	(0.028)	(0.029)
Electoral Democracy Sq.				−0.275***	−0.290***	−0.286***	−0.349***	−0.374***	−0.382***
				(0.024)	(0.024)	(0.023)	(0.026)	(0.027)	(0.027)
Stock of Democracy					0.067***	0.067***	0.088***	0.088***	0.091***
					(0.009)	(0.009)	(0.010)	(0.011)	(0.011)
Education						−0.004	−0.012***	−0.017***	−0.017***
						(0.003)	(0.004)	(0.004)	(0.004)
Openness							0.000***	0.000***	0.000***
							(0.000)	(0.000)	(0.000)
Rural inequality								−0.000	−0.000
								(0.000)	(0.000)
Civil War									−0.003
									(0.003)
Observations	10,688	10,688	10,688	10,688	10,688	10,688	8,929	7,584	7,456
R-squared	0.466	0.455	0.700	0.705	0.706	0.711	0.772	0.791	0.793
Rho	0.928	0.931	0.880	0.879	0.880	0.877	0.860	0.856	0.855
Number of country id	134	134	134	134	134	134	130	127	127
Country and Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time period	1901–2018	1901–2018	1901–2018	1901–2018	1901–2018	1901–2018	1901–2014	1901–2006	1901–2006

Notes: Prais-Winsten regression with heteroskedastic panels corrected standard errors reported in parentheses. * p<0.1; ** p<0.05; *** p<0.01. Constant omitted. Source: authors' elaboration based on the V-Dem data set (Coppedge et al., 2019b).

Table B.4
Party Linkages and Corruption. Panel Fixed-Effects estimates. Results for the successive inclusions of controls.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Party Linkages	−0.051***	−0.051***	−0.049***	−0.051***	−0.051***	−0.051***	−0.054***	−0.052***	−0.052***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.003)	(0.003)
Ln GDP per capita		−0.028***	−0.026***	−0.028***	−0.028***	−0.025***	−0.016***	−0.013**	−0.013**
		(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.006)	(0.006)
Electoral Democracy			−0.075***	0.042**	0.068***	0.064***	0.069***	0.054**	0.049*
			(0.008)	(0.020)	(0.022)	(0.022)	(0.024)	(0.026)	(0.026)
Electoral Democracy Sq.				−0.147***	−0.147***	−0.142***	−0.136***	−0.111***	−0.105***
				(0.022)	(0.022)	(0.022)	(0.024)	(0.024)	(0.025)
Stock of Democracy					−0.021***	−0.021***	−0.029***	−0.034***	−0.035***
					(0.007)	(0.007)	(0.009)	(0.009)	(0.009)
Education						−0.013***	−0.003	0.001	0.001
						(0.004)	(0.005)	(0.006)	(0.006)
Openness							−0.000	−0.000	−0.000
							(0.000)	(0.000)	(0.000)
Rural inequality								0.001**	0.001**
								(0.000)	(0.000)
Civil War									−0.002
									(0.003)
Observations	10,688	10,688	10,688	10,688	10,688	10,688	8,929	7,584	7,456
R-squared	0.493	0.501	0.514	0.552	0.564	0.563	0.612	0.645	0.648
Rho	0.927	0.926	0.924	0.914	0.911	0.912	0.909	0.905	0.904
Number of country id	134	134	134	134	134	134	130	127	127
Country and Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time period	1901–2018	1901–2018	1901–2018	1901–2018	1901–2018	1901–2018	1901–2014	1901–2006	1901–2006

Notes: Prais-Winsten regression with heteroskedastic panels corrected standard errors reported in parentheses. * p<0.1; ** p<0.05; *** p<0.01. Constant omitted. Source: authors' elaboration based on the V-Dem data set ((Coppedge et al., 2019b)).

Table B.5
Party Linkages and Rule of Law. Panel Fixed-Effects estimates. Results for the successive inclusions of controls.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Party Linkages	0.055***	0.055***	0.046***	0.045***	0.044***	0.044***	0.051***	0.050***	0.049***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.003)	(0.003)
Ln GDP per capita		0.027***	0.020***	0.021***	0.021***	0.023***	0.019***	0.017***	0.015***
		(0.005)	(0.004)	(0.004)	(0.004)	(0.005)	(0.005)	(0.005)	(0.005)
Electoral Democracy			0.390***	0.578***	0.511***	0.510***	0.537***	0.567***	0.573***
			(0.008)	(0.021)	(0.023)	(0.023)	(0.026)	(0.027)	(0.028)
Electoral Democracy Sq.				−0.233***	−0.245***	−0.242***	−0.281***	−0.302***	−0.310***
				(0.023)	(0.023)	(0.023)	(0.025)	(0.026)	(0.026)
Stock of Democracy					0.060***	0.060***	0.079***	0.079***	0.082***
					(0.008)	(0.008)	(0.010)	(0.010)	(0.010)
Education						−0.006*	−0.012***	−0.016***	−0.017***
						(0.003)	(0.004)	(0.004)	(0.004)
Openness							0.000***	0.000***	0.000***
							(0.000)	(0.000)	(0.000)
Rural inequality								−0.000	−0.000
								(0.000)	(0.000)
Civil War									−0.004
									(0.003)
Observations	10,688	10,688	10,688	10,688	10,688	10,688	8,929	7,584	7,456
R-squared	0.492	0.492	0.699	0.703	0.707	0.707	0.780	0.800	0.804
Rho	0.925	0.925	0.885	0.885	0.884	0.884	0.863	0.856	0.853
Number of country id	134	134	134	134	134	134	130	127	127
Country and Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time period	1901–2018	1901–2018	1901–2018	1901–2018	1901–2018	1901–2018	1901–2014	1901–2006	1901–2006

Notes: Prais-Winsten regression with heteroskedastic panels corrected standard errors reported in parentheses. * p<0.1; ** p<0.05; *** p<0.01. Constant omitted. Source: authors' elaboration based on the V-Dem data set ((Coppedge et al., 2019b)).

Table B.6
Vote Buying and Corruption. Panel Fixed-Effects estimates. Results for the successive inclusions of controls.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Vote Buying	−0.032***	−0.032***	−0.032***	−0.031***	−0.032***	−0.031***	−0.030***	−0.025***	−0.025***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.003)	(0.003)
Ln GDP per capita		−0.032***	−0.028***	−0.028***	−0.028***	−0.025***	−0.020***	−0.018***	−0.017***
		(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.006)	(0.006)	(0.006)
Electoral Democracy			−0.103***	−0.056***	−0.022	−0.024	−0.004	−0.019	−0.025
			(0.008)	(0.022)	(0.024)	(0.024)	(0.026)	(0.028)	(0.028)
Electoral Democracy Sq.				−0.058**	−0.053**	−0.051**	−0.061**	−0.035	−0.029
				(0.024)	(0.024)	(0.024)	(0.025)	(0.026)	(0.026)
Stock of Democracy					−0.030***	−0.030***	−0.041***	−0.047***	−0.048***
					(0.008)	(0.008)	(0.010)	(0.010)	(0.010)
Education						−0.010**	−0.003	−0.003	−0.003
						(0.005)	(0.005)	(0.006)	(0.006)
Openness							0.000	−0.001***	−0.001***
							(0.000)	(0.000)	(0.000)
Rural inequality								0.000	0.000
								(0.000)	(0.000)
Civil War									−0.001
									(0.003)
Observations	9,846	9,846	9,846	9,846	9,846	9,846	8,466	7,196	7,073
R-squared	0.570	0.586	0.602	0.604	0.606	0.606	0.659	0.685	0.687
Rho	0.911	0.907	0.905	0.904	0.904	0.904	0.896	0.892	0.891
Number of country id	133	133	133	133	133	133	129	126	126
Country and Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time period	1901–2018	1901–2018	1901–2018	1901–2018	1901–2018	1901–2018	1901–2014	1901–2006	1901–2006

Notes: Prais-Winsten regression with heteroskedastic panels corrected standard errors reported in parentheses. * p<0.1; ** p<0.05; *** p<0.01. Constant omitted. Source: authors' elaboration based on the V-Dem data set ((Coppedge et al., 2019b)).

Table B.7
Vote Buying and Rule of Law. Panel Fixed-Effects estimates. Results for the successive inclusions of controls.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Vote Buying	0.020*** (0.003)	0.019*** (0.003)	0.020*** (0.002)	0.023*** (0.002)	0.023*** (0.002)	0.023*** (0.002)	0.019*** (0.002)	0.016*** (0.002)	0.016*** (0.002)
Ln GDP per capita		0.029*** (0.006)	0.019*** (0.005)	0.021*** (0.005)	0.020*** (0.005)	0.022*** (0.005)	0.021*** (0.005)	0.018*** (0.006)	0.016*** (0.006)
Electoral Democracy			0.423*** (0.009)	0.687*** (0.023)	0.601*** (0.026)	0.599*** (0.026)	0.593*** (0.028)	0.624*** (0.030)	0.629*** (0.030)
Electoral Democracy Sq.				−0.322*** (0.026)	−0.338*** (0.025)	−0.336*** (0.025)	−0.345*** (0.027)	−0.364*** (0.028)	−0.373*** (0.028)
Stock of Democracy					0.076*** (0.009)	0.076*** (0.009)	0.099*** (0.011)	0.096*** (0.011)	0.100*** (0.011)
Education						−0.005 (0.004)	−0.009** (0.004)	−0.010** (0.004)	−0.010** (0.004)
Openness							0.001*** (0.000)	0.001*** (0.000)	0.001*** (0.000)
Rural inequality								−0.000 (0.000)	−0.000 (0.000)
Civil War									−0.004 (0.003)
Observations	9,846	9,846	9,846	9,846	9,846	9,846	8,466	7,196	7,073
R-squared	0.448	0.439	0.715	0.723	0.722	0.725	0.778	0.792	0.795
Rho	0.929	0.931	0.872	0.871	0.873	0.871	0.858	0.856	0.854
Number of country id	133	133	133	133	133	133	129	126	126
Country and Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time period	1901–2018	1901–2018	1901–2018	1901–2018	1901–2018	1901–2018	1901–2014	1901–2006	1901–2006

Notes: Prais-Winsten regression with heteroskedastic panels corrected standard errors reported in parentheses. * p<0.1; ** p<0.05; *** p<0.01. Constant omitted. Source: authors' elaboration based on the V-Dem data set ((Coppedge et al., 2019b)).

Table B.8
Clientelism, Corruption and Rule of Law. Model with country × decade fixed effects.

	Corruption				Rule of Law			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Clientelism index	0.239*** (0.011)	0.217*** (0.011)	0.068*** (0.007)	0.209*** (0.013)	−0.265*** (0.012)	−0.156*** (0.010)	−0.058*** (0.007)	−0.137*** (0.012)
Ln GDP per capita		−0.028*** (0.004)	−0.004 (0.003)	−0.020*** (0.005)		0.014*** (0.004)	−0.000 (0.003)	0.008 (0.005)
Electoral Democracy		0.001 (0.024)	−0.129*** (0.021)	−0.029 (0.028)		0.634*** (0.025)	0.752*** (0.023)	0.723*** (0.030)
Electoral Democracy Sq.		−0.075*** (0.025)	0.001 (0.017)	−0.038 (0.027)		−0.329*** (0.025)	−0.188*** (0.019)	−0.386*** (0.028)
Stock of Democracy		−0.031*** (0.008)	0.052*** (0.009)	−0.030*** (0.009)		0.062*** (0.009)	−0.243*** (0.011)	0.054*** (0.011)
Education		0.028*** (0.002)	0.004** (0.001)	0.026*** (0.002)		−0.021*** (0.002)	−0.002 (0.001)	−0.022*** (0.002)
Openness				0.000 (0.000)				0.000*** (0.000)
Rural inequality				0.000* (0.000)				0.000 (0.000)
Civil War				−0.006* (0.003)				−0.001 (0.003)
Political corruption index$_{t-1}$			−0.259*** (0.013)					
Rule of law index$_{t-1}$							−0.284*** (0.011)	
Observations	10,688	10,688	10,500	7,456	10,688	10,688	10,500	7,456
R-squared	0.943	0.948	0.202	0.966	0.916	0.952	0.343	0.970
Rho	0.568	0.556	0.0717	0.470	0.612	0.553	0.0997	0.458
Number of country id	134	134	134	127	134	134	134	127
Country × Decade FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time period	1901–2018	1901–2018	1901–2018	1901–2006	1901–2018	1901–2018	1901–2018	1901–2006

Notes: Prais-Winsten regression with heteroskedastic panels corrected standard errors reported in parentheses. * p<0.1; ** p<0.05; *** p<0.01. Constant omitted. Models (3) and (7) use Change (from t-1 to t) in Corruption or in Rule of Law as dependent variable. Source: authors' elaboration based on the V-Dem data set ((Coppedge et al., 2019b)) .

Table B.9
Party Linkages, Corruption and Rule of Law. Model with country × decade fixed effects.

	Corruption				Rule of Law			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Party Linkages	−0.066***	−0.064***	−0.034***	−0.064***	0.073***	0.051***	0.029***	0.055***
	(0.002)	(0.002)	(0.002)	(0.003)	(0.003)	(0.002)	(0.002)	(0.003)
Ln GDP per capita		−0.033***	−0.008***	−0.021***		0.017***	0.002	0.009
		(0.004)	(0.003)	(0.005)		(0.004)	(0.003)	(0.005)
Electoral Democracy		0.054**	−0.084***	0.053*		0.588***	0.713***	0.647***
		(0.024)	(0.020)	(0.028)		(0.025)	(0.023)	(0.029)
Electoral Democracy Sq.		−0.153***	−0.038**	−0.140***		−0.265***	−0.160***	−0.304***
		(0.024)	(0.017)	(0.026)		(0.025)	(0.019)	(0.028)
Stock of Democracy		−0.025***	0.047***	−0.024***		0.057***	−0.233***	0.050***
		(0.007)	(0.008)	(0.008)		(0.008)	(0.011)	(0.010)
Education		0.030***	0.006***	0.027***		−0.023***	−0.004***	−0.024***
		(0.002)	(0.001)	(0.002)		(0.002)	(0.001)	(0.002)
Openness				0.000				0.000***
				(0.000)				(0.000)
Rural inequality				0.000*				−0.000
				(0.000)				(0.000)
Civil War				−0.002				−0.004
				(0.003)				(0.003)
Political corruption index$_{t-1}$			−0.287***					
			(0.013)					
Rule of law index$_{t-1}$							−0.305***	
							(0.011)	
Observations	10,688	10,688	10,500	7,456	10,688	10,688	10,500	7,456
R-squared	0.952	0.953	0.235	0.968	0.927	0.956	0.362	0.971
Rho	0.533	0.538	0.0840	0.461	0.582	0.542	0.108	0.463
Number of country id	134	134	134	127	134	134	134	127
Country × Decade FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time period	1901–2018	1901–2018	1901–2018	1901–2006	1901–2018	1901–2018	1901–2018	1901–2006

Notes: Prais-Winsten regression with heteroskedastic panels corrected standard errors reported in parentheses. * p<0.1; ** p<0.05; *** p<0.01. Constant omitted. Models (3) and (7) use Change (from t-1 to t) in Corruption or in Rule of Law as dependent variable. Source: authors' elaboration based on the V-Dem data set ((Coppedge et al., 2019b)).

Table B.10
Vote Buying, Corruption and Rule of Law. Model with country × decade fixed effects.

	Corruption				Rule of Law			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Vote Buying	−0.045***	−0.042***	−0.016***	−0.034***	0.032***	0.025***	0.010***	0.019***
	(0.003)	(0.002)	(0.002)	(0.003)	(0.003)	(0.002)	(0.002)	(0.003)
Ln GDP per capita		−0.030***	−0.004	−0.020***		0.015***	−0.001	0.006
		(0.005)	(0.003)	(0.006)		(0.005)	(0.003)	(0.006)
Electoral Democracy		−0.045*	−0.157***	−0.046		0.679***	0.825***	0.725***
		(0.026)	(0.021)	(0.030)		(0.028)	(0.024)	(0.032)
Electoral Democracy Sq.		−0.043*	0.023	−0.036		−0.371***	−0.216***	−0.387***
		(0.025)	(0.018)	(0.027)		(0.026)	(0.020)	(0.029)
Stock of Democracy		−0.037***	0.053***	−0.036***		0.075***	−0.268***	0.066***
		(0.009)	(0.009)	(0.011)		(0.010)	(0.011)	(0.012)
Education		0.027***	0.002	0.024***		−0.021***	−0.001	−0.023***
		(0.002)	(0.002)	(0.002)		(0.002)	(0.002)	(0.003)
Openness				−0.000				0.001***
				(0.000)				(0.000)
Rural inequality				0.000*				−0.000
				(0.000)				(0.000)
Civil War				−0.004				−0.003
				(0.004)				(0.004)
Political corruption index$_{t-1}$			−0.261***					
			(0.014)					
Rule of law index$_{t-1}$							−0.278***	
							(0.011)	
Observations	9,846	9,846	9,652	7,073	9,846	9,846	9,652	7,073
R-squared	0.944	0.949	0.217	0.967	0.910	0.953	0.361	0.969
Rho	0.572	0.558	0.0746	0.453	0.613	0.545	0.0866	0.456
Number of country id	133	133	133	126	133	133	133	126
Country × Decade FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time period	1901–2018	1901–2018	1901–2018	1901–2006	1901–2018	1901–2018	1901–2018	1901–2006

Notes: Prais-Winsten regression with heteroskedastic panels corrected standard errors reported in parentheses. * p<0.1; ** p<0.05; *** p<0.01. Constant omitted. Models (3) and (7) use Change (from t-1 to t) in Corruption or in Rule of Law as dependent variable. Source: authors' elaboration based on the V-Dem data set ((Coppedge et al., 2019b)).

Table B.11
Clientelism and the ICRG Indicator of Quality of Government. Panel Fixed-Effects estimates.

	(1)	(2)	(3)	(4)
Clientelism index	−0.045***	−0.030**	−0.010	−0.056**
	(0.015)	(0.015)	(0.008)	(0.022)
Ln GDP per capita		0.048***	0.010***	0.053***
		(0.009)	(0.003)	(0.013)
Electoral Democracy		0.048	0.096***	0.058
		(0.047)	(0.033)	(0.065)
Electoral Democracy Sq.		0.018	0.022	0.063
		(0.051)	(0.028)	(0.075)
Stock of Democracy		0.009	−0.050***	−0.012
		(0.013)	(0.013)	(0.018)
Education		0.010	−0.003	0.026**
		(0.007)	(0.002)	(0.010)
Openness				−0.000
				(0.000)
Rural inequality				0.001*
				(0.000)
Civil War				−0.027***
				(0.006)
ICRG Indicator of Quality of Government$_{t-1}$			−0.165***	
			(0.009)	
Observations	3,828	3,828	3,713	2,350
R-squared	0.741	0.755	0.210	0.772
Rho	0.830	0.822	0.235	0.792
Number of country id	115	115	115	111
Country and Year FE	Yes	Yes	Yes	Yes
Time period	1984–2018	1984–2018	1984–2018	1984–2006

Notes: Prais-Winsten regression with heteroskedastic panels corrected standard errors reported in parentheses. * p<0.1; ** p<0.05; *** p<0.01. Constant omitted. Model (3) uses Change (from t-1 to t) in Corruption or in Rule of Law as dependent variable. Source: authors' elaboration based on the V-Dem data set ((Coppedge et al., 2019b)) and ICRG data (Dahlberg et al., 2019).

Table B.12
Party Linkages and the ICRG Indicator of Quality of Government. Panel Fixed-Effects estimates.

	(1)	(2)	(3)	(4)
Party Linkages	0.009**	0.005	0.000	0.004
	(0.004)	(0.004)	(0.002)	(0.005)
Ln GDP per capita		0.048***	0.010***	0.053***
		(0.009)	(0.003)	(0.013)
Electoral Democracy		0.036	0.092***	0.042
		(0.047)	(0.033)	(0.065)
Electoral Democracy Sq.		0.034	0.029	0.084
		(0.051)	(0.027)	(0.074)
Stock of Democracy		0.008	−0.052***	−0.014
		(0.013)	(0.013)	(0.018)
Education		0.010	−0.003	0.027***
		(0.007)	(0.002)	(0.010)
Openness				−0.000
				(0.000)
Rural inequality				0.001*
				(0.000)
Civil War				−0.028***
				(0.006)
ICRG Indicator of Quality of Government$_{t-1}$			−0.165***	
			(0.009)	
Observations	3,828	3,828	3,713	2,350
R-squared	0.742	0.755	0.210	0.771
Rho	0.829	0.822	0.235	0.792
Number of country id	115	115	115	111
Country and Year FE	Yes	Yes	Yes	Yes
Time period	1984–2018	1984–2018	1984–2018	1984–2006

Notes: Prais-Winsten regression with heteroskedastic panels corrected standard errors reported in parentheses. * p<0.1; ** p<0.05; *** p<0.01. Constant omitted. Model (3) uses Change (from t-1 to t) in Corruption or in Rule of Law as dependent variable. Source: authors' elaboration based on the V-Dem data set ((Coppedge et al., 2019b)) and ICRG data (Dahlberg et al., 2019).

Table B.13
Vote Buying and the ICRG Indicator of Quality of Government. Panel Fixed-Effects estimates.

	(1)	(2)	(3)	(4)
Vote Buying	0.007**	0.007*	0.004*	0.012**
	(0.003)	(0.003)	(0.002)	(0.005)
Ln GDP per capita		0.051***	0.009**	0.049***
		(0.009)	(0.004)	(0.013)
Electoral Democracy		0.067	0.130***	0.095
		(0.048)	(0.035)	(0.067)
Electoral Democracy Sq.		−0.009	0.005	0.022
		(0.052)	(0.029)	(0.078)
Stock of Democracy		0.018	−0.058***	−0.008
		(0.015)	(0.015)	(0.024)
Education		0.009	−0.004	0.026**
		(0.007)	(0.002)	(0.011)
Openness				−0.001
				(0.001)
Rural inequality				0.001*
				(0.000)
Civil War				−0.027***
				(0.006)
ICRG Indicator of Quality of Government$_{t-1}$			−0.170***	
			(0.010)	
Observations	3,678	3,678	3,559	2,233
R-squared	0.756	0.770	0.217	0.788
Rho	0.824	0.816	0.238	0.782
Number of country id	113	113	113	108
Country and Year FE	Yes	Yes	Yes	Yes
Time period	1984–2018	1984–2018	1984–2018	1984–2006

Notes: Prais-Winsten regression with heteroskedastic panels corrected standard errors reported in parentheses. * $p<0.1$; ** $p<0.05$; *** $p<0.01$. Constant omitted. Model (3) uses Change (from t-1 to t) in Corruption or in Rule of Law as dependent variable. Source: authors' elaboration based on the V-Dem data set ((Coppedge et al., 2019b)) and ICRG data (Dahlberg et al., 2019).

Table B.14
Clientelism and The Bayesian Corruption Indicator. Panel Fixed-Effects estimates.

	(1)	(2)	(3)	(4)
Clientelism index	0.110	0.194	0.197	0.129
	(0.273)	(0.268)	(0.160)	(0.084)
Ln GDP per capita		−1.071***	−0.076	−0.752***
		(0.192)	(0.072)	(0.069)
Electoral Democracy		1.072	0.089	1.465***
		(0.822)	(0.550)	(0.252)
Electoral Democracy Sq.		−1.380	0.034	−2.120***
		(0.947)	(0.540)	(0.293)
Stock of Democracy		0.567**	0.125	0.470***
		(0.276)	(0.227)	(0.086)
Education		0.331*	0.055	0.102
		(0.196)	(0.053)	(0.096)
Openness				−0.023***
				(0.003)
Rural inequality				0.015***
				(0.002)
Civil War				−0.055**
				(0.023)
The Bayesian Corruption Indicator$_{t-1}$			−0.063***	
			(0.009)	
Observations	3,565	3,565	3,446	2,233
R-squared	0.947	0.952	0.127	0.998
Rho	0.953	0.948	0.576	0.902
Number of country id	113	113	113	108
Country and Year FE	Yes	Yes	Yes	Yes
Time period	1984–2018	1984–2018	1984–2018	1984–2006

Notes: Prais-Winsten regression with heteroskedastic panels corrected standard errors reported in parentheses. * $p<0.1$; ** $p<0.05$; *** $p<0.01$. Constant omitted. Model (3) uses Change (from t-1 to t) in Corruption or in Rule of Law as dependent variable. Source: authors' elaboration based on the V-Dem data set ((Coppedge et al., 2019b)) and (Standaert, 2015).

Table B.15
Party Linkages and The Bayesian Corruption Indicator. Panel Fixed-Effects estimates.

	(1)	(2)	(3)	(4)
Party Linkages	0.020	−0.016	−0.016	−0.051**
	(0.071)	(0.073)	(0.044)	(0.022)
Ln GDP per capita		−1.071***	−0.077	−0.755***
		(0.192)	(0.072)	(0.069)
Electoral Democracy		1.132	0.184	1.563***
		(0.830)	(0.550)	(0.256)
Electoral Democracy Sq.		−1.483	−0.110	−2.208***
		(0.950)	(0.530)	(0.294)
Stock of Democracy		0.581**	0.141	0.477***
		(0.276)	(0.226)	(0.086)
Education		0.330*	0.055	0.098
		(0.195)	(0.052)	(0.096)
Openness				−0.023***
				(0.003)
Rural inequality				0.015***
				(0.002)
Civil War				−0.055**
				(0.023)
The Bayesian Corruption Indicator$_{t-1}$			−0.063***	
			(0.009)	
Observations	3,565	3,565	3,446	2,233
R-squared	0.947	0.953	0.127	0.998
Rho	0.953	0.946	0.576	0.902
Number of country id	113	113	113	108
Country and Year FE	Yes	Yes	Yes	Yes
Time period	1984–2018	1984–2018	1984–2018	1984–2006

Notes: Prais-Winsten regression with heteroskedastic panels corrected standard errors reported in parentheses. * p<0.1; ** p<0.05; *** p<0.01. Constant omitted. Model (3) uses Change (from t-1 to t) in Corruption or in Rule of Law as dependent variable. Source: authors' elaboration based on the V-Dem data set ((Coppedge et al., 2019b)) and (Standaert, 2015).

Table B.16
Vote Buying and The Bayesian Corruption Indicator. Panel Fixed-Effects estimates.

	(1)	(2)	(3)	(4)
Vote Buying	0.004	0.012	0.008	−0.029*
	(0.057)	(0.058)	(0.036)	(0.017)
Ln GDP per capita		−1.070***	−0.077	−0.755***
		(0.192)	(0.072)	(0.070)
Electoral Democracy		1.113	0.186	1.439***
		(0.825)	(0.552)	(0.256)
Electoral Democracy Sq.		−1.474	−0.132	−2.113***
		(0.951)	(0.541)	(0.297)
Stock of Democracy		0.581**	0.144	0.475***
		(0.276)	(0.227)	(0.087)
Education		0.328*	0.054	0.103
		(0.196)	(0.053)	(0.096)
Openness				−0.023***
				(0.003)
Rural inequality				0.015***
				(0.002)
Civil War				−0.055**
				(0.023)
The Bayesian Corruption Indicator$_{t-1}$			−0.063***	
			(0.009)	
Observations	3,565	3,565	3,446	2,233
R-squared	0.948	0.952	0.127	0.998
Rho	0.952	0.947	0.576	0.901
Number of country id	113	113	113	108
Country and Year FE	Yes	Yes	Yes	Yes
Time period	1984–2018	1984–2018	1984–2018	1984–2006

Notes: Prais-Winsten regression with heteroskedastic panels corrected standard errors reported in parentheses. * p<0.1; ** p<0.05; *** p<0.01. Constant omitted. Model (3) uses Change (from t-1 to t) in Corruption or in Rule of Law as dependent variable. Source: authors' elaboration based on the V-Dem data set ((Coppedge et al., 2019b)) and (Standaert, 2015).

Table B.17
Clientelism, Corruption and Rule of Law. Panel Fixed-Effects estimates. Sample: 1989–2019.

	Corruption				Rule of Law			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Clientelism index	0.278***	0.252***	0.064***	0.265***	−0.259***	−0.183***	−0.069***	−0.185***
	(0.018)	(0.017)	(0.010)	(0.025)	(0.019)	(0.017)	(0.010)	(0.021)
Ln GDP per capita		−0.049***	−0.015***	−0.057***		0.043***	0.011***	0.036***
		(0.008)	(0.003)	(0.011)		(0.008)	(0.004)	(0.013)
Electoral Democracy		0.140***	−0.179***	0.337***		0.454***	0.591***	0.367***
		(0.047)	(0.037)	(0.065)		(0.053)	(0.044)	(0.072)
Electoral Democracy Sq.		−0.283***	−0.005	−0.522***		−0.090*	−0.083**	0.067
		(0.049)	(0.029)	(0.068)		(0.054)	(0.032)	(0.076)
Stock of Democracy		−0.027**	0.075***	−0.012		0.064***	−0.218***	0.051**
		(0.014)	(0.015)	(0.020)		(0.016)	(0.020)	(0.025)
Education		0.003	0.007***	−0.000		−0.010*	−0.004*	−0.010
		(0.006)	(0.002)	(0.008)		(0.006)	(0.002)	(0.007)
Openness				0.000				0.000
				(0.000)				(0.000)
Rural inequality				0.000				0.001**
				(0.000)				(0.000)
Civil War				−0.009				−0.001
				(0.006)				(0.006)
Political corruption index$_{t-1}$			−0.208***					
			(0.019)					
Rule of law index$_{t-1}$							−0.238***	
							(0.018)	
Observations	3,989	3,989	3,855	2,203	3,989	3,989	3,855	2,203
R-squared	0.862	0.881	0.169	0.934	0.849	0.893	0.274	0.942
Rho	0.781	0.761	0.159	0.651	0.741	0.735	0.179	0.649
Number of country id	134	134	134	126	134	134	134	126
Country and Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time period	1989–2018	1989–2018	1989–2018	1989–2006	1989–2018	1989–2018	1989–2018	1989–2006

Notes: Prais-Winsten regression with heteroskedastic panels corrected standard errors reported in parentheses. * p<0.1; ** p<0.05; *** p<0.01. Constant omitted.Models (3) and (7) use Change (from t-1 to t) in Corruption or in Rule of Law as dependent variable. Source: authors' elaboration based on the V-Dem data set ((Coppedge et al., 2019b)).

Table B.18
Party Linkages, Corruption and Rule of Law. Panel Fixed-Effects estimates. Sample: 1989–2019.

	Corruption				Rule of Law			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Party Linkages	−0.059***	−0.058***	−0.026***	−0.060***	0.070***	0.054***	0.024***	0.057***
	(0.004)	(0.004)	(0.003)	(0.006)	(0.005)	(0.004)	(0.003)	(0.005)
Ln GDP per capita		−0.054***	−0.018***	−0.064***		0.048***	0.014***	0.041***
		(0.008)	(0.003)	(0.011)		(0.008)	(0.004)	(0.013)
Electoral Democracy		0.252***	−0.136***	0.503***		0.357***	0.555***	0.238***
		(0.047)	(0.037)	(0.064)		(0.052)	(0.045)	(0.067)
Electoral Democracy Sq.		−0.426***	−0.054*	−0.695***		0.023	−0.040	0.190***
		(0.049)	(0.030)	(0.066)		(0.053)	(0.033)	(0.071)
Stock of Democracy		−0.021	0.076***	−0.001		0.059***	−0.218***	0.041*
		(0.013)	(0.015)	(0.019)		(0.016)	(0.020)	(0.022)
Education		0.005	0.009***	−0.001		−0.013**	−0.007***	−0.011
		(0.006)	(0.002)	(0.008)		(0.006)	(0.002)	(0.007)
Openness				−0.000				0.000**
				(0.000)				(0.000)
Rural inequality				0.000				0.001*
				(0.000)				(0.000)
Civil War				−0.008				−0.002
				(0.006)				(0.006)
Political corruption index$_{t-1}$			−0.223***					
			(0.020)					
Rule of law index$_{t-1}$							−0.246***	
							(0.019)	
Observations	3,989	3,989	3,855	2,203	3,989	3,989	3,855	2,203
R-squared	0.851	0.880	0.187	0.932	0.838	0.894	0.282	0.940
Rho	0.791	0.761	0.184	0.649	0.765	0.738	0.190	0.667
Number of country id	134	134	134	126	134	134	134	126
Country and Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time period	1989–2018	1989–2018	1989–2018	1989–2006	1989–2018	1989–2018	1989–2018	1989–2006

Notes: Prais-Winsten regression with heteroskedastic panels corrected standard errors reported in parentheses. * p<0.1; ** p<0.05; *** p<0.01. Constant omitted. Models (3) and (7) use Change (from t-1 to t) in Corruption or in Rule of Law as dependent variable. Source: authors' elaboration based on the V-Dem data set ((Coppedge et al., 2019b)).

Table B.19

Vote Buying, Corruption and Rule of Law. Panel Fixed-Effects estimates. Sample: 1989–2019.

	Corruption				Rule of Law			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Vote Buying	−0.053***	−0.050***	−0.016***	−0.050***	0.038***	0.036***	0.014***	0.033***
	(0.004)	(0.004)	(0.003)	(0.006)	(0.004)	(0.004)	(0.002)	(0.005)
Ln GDP per capita		−0.057***	−0.016***	−0.065***		0.047***	0.010***	0.038***
		(0.009)	(0.004)	(0.012)		(0.009)	(0.004)	(0.014)
Electoral Democracy		0.106**	−0.211***	0.272***		0.479***	0.678***	0.397***
		(0.050)	(0.041)	(0.069)		(0.057)	(0.048)	(0.076)
Electoral Democracy Sq.		−0.282***	0.001	−0.484***		−0.099*	−0.085**	0.043
		(0.051)	(0.032)	(0.069)		(0.057)	(0.034)	(0.078)
Stock of Democracy		−0.024	0.086***	−0.005		0.068***	−0.268***	0.057**
		(0.015)	(0.018)	(0.025)		(0.018)	(0.022)	(0.026)
Education		0.004	0.006**	−0.001		−0.009	−0.003	−0.009
		(0.007)	(0.003)	(0.009)		(0.006)	(0.003)	(0.008)
Openness				−0.000				0.001**
				(0.000)				(0.000)
Rural inequality				0.000				0.001**
				(0.000)				(0.000)
Civil War				−0.005				−0.003
				(0.007)				(0.006)
Political corruption index$_{t-1}$			−0.212***					
			(0.020)					
Rule of law index$_{t-1}$							−0.220***	
							(0.019)	
Observations	3,867	3,867	3,727	2,118	3,867	3,867	3,727	2,118
R-squared	0.869	0.882	0.173	0.934	0.840	0.892	0.279	0.942
Rho	0.767	0.761	0.178	0.642	0.746	0.732	0.176	0.634
Number of country id	132	132	132	123	132	132	132	123
Country and Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time period	1989–2018	1989–2018	1989–2018	1989–2006	1989–2018	1989–2018	1989–2018	1989–2006

Notes: Prais-Winsten regression with heteroskedastic panels corrected standard errors reported in parentheses. * $p<0.1$; ** $p<0.05$; *** $p<0.01$. Constant omitted. Models (3) and (7) use Change (from t-1 to t) in Corruption or in Rule of Law as dependent variable. Source: authors' elaboration based on the V-Dem data set ((Coppedge et al., 2019b)).

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