Unpacking Corruption: The Relationship between Street-Level Bribery and Maintaining Political Power

Kaan Aksoy

4th May 2023

Introduction

Corruption is prevalent in the world, particularly among authoritarian states. Intuitively, we expect that authoritarian regimes be more corrupt than their democratic counterparts, due to the relative absence of institutional restraints. For most part, this holds true. Recent literature, however, suggests that not all authoritarian regimes are the same. Increasingly, authoritarian regimes are shifting away from heavy-handed methods of maintaining control. Instead of brute force, they are transitioning towards more restrained methods of perpetuating themselves.

In this framework of conceptualising autocratic governments, corruption plays a role in maintaining a regime by providing means of distributing rewards for essential and influential members of the ruling elite. With this perspective, corruption becomes not an undesirable aspect of government, but instead a built-in feature of how a country is governed.

I aim to bridge the understanding of this transition to a newer type of autocracy and corruption by drawing on the "informational autocracy" theory proposed by Guriev and Treisman (2019). Guriev and Treisman (2019) demonstrate how newer autocrats seek not to violently hold power, but instead convince their citizenry alongside more targeted and surgical methods of repression. Competence or the illusion of competence is a key component of convincing the citizenry of their right to rule.

My theory proposes that as the costs of repression in a system increase, the level of low-level bribery will decrease. The reasoning follows that if repression were without cost (or carries a tolerable cost), the dictator has no incentive to not repress. Therefore, repression cost being high is a necessary condition for the incentive mechanisms to kick in. When these costs are high, there is an increasing pressure to utilise what Guriev and Treisman (2019) refer to as "low-violence methods" (106).

In exploring the relationship between autocratic governance and corruption, I contribute to the literature on corruption by disaggregating the concept of corruption. Corruption is commonly conceptualised and operationalised as a monolithic whole. There is little differentiation between corruption taking place in different echelons of government or society. Furthermore, there is often little differentiation between embezzlement and bribery, which are two distinct forms of corruption. I aim to fill this gap in the literature by seeking to understand how autocratic governance influences the latter.

I also build upon Chang and Golden (2010), by unpacking the concept of corruption and focusing on a particular aspect of it, while also substantially increasing the sample size used. The data I use includes 200 countries over a period of 234 years. After data cleaning and processing which removes about half the data, I work with approximately 20,000 data points.

Authoritarian Governments and Corruption

Increasingly, autocracies are transitioning away from heavy-handed methods to maintain control. Brutally repressive dictatorships such as those of Samuel Doe's regime in Liberia or Mobutu Sese Seko's Congo are an increasingly rare sight. This, however, does not necessarily mean that dictatorships are vanishing. Instead, this trend has also witnessed dictators changing the means by which they cling onto power. As trends in the world shift and liberal democratic models of governance seem more to be the global norm, autocrats utilise more targeted, precise, less violent, and generally less overt means of repressing dissent.

Whether or not a country will utilise these new methods is influenced by the size of the "informed elite" (Guriev and Treisman 2020). The "informed elite" refers to the section of the population which can perceive the constraints upon the ruler, while the general public does not perceive these limitations (Guriev and Treisman 2019, 101).

One of the means by which rulers maintain their grip on power is by creating the impression of competence (Lamberova 2021; Guriev and Treisman 2019; Gerschewski 2013). Competence is a broad concept and difficult to pin down, but within the framework of this paper, it generally refers to delivering positive economic outcomes. These outcomes are typically high economic growth rates, lower unemployment rates, stable or decreasing costs of living, and acceptable levels of inflation.

Whatever the precise mechanism of holding power may be, the fact remains that autocratic leaders generally seek to maintain power for as long as they do. This is an assumption, but I believe that it is an easily defended assumption. It is an extremely common assumption of studying the behaviour of politicians in democratic settings, and I argue that the factors incentivising politicians in democratic settings to maintain their status are only exacerbated in authoritarian settings. Autocratic leaders face additional threats should they lose power: the loss of accumulated wealth, freedom, or even the lives of their loved ones or themselves. Put more simply, there tends to be far more at risk for an autocrat who loses power compared to a democratic incumbent who loses an election. If anything, the likelihood that an autocrat being ousted through an election is far less than the likelihood of their ouster coming about by way of a violent coup d'etat, revolution, or palace coup is one piece of evidence.

Much of the literature on corruption is derived from how corrupt practices take place in democratic settings. Studies show that electoral systems are influential on corruption (Persson, Tabellini, and Trebbi 2003), and that clientelism—where narrow interests are prioritised by politicians in exchange for votes—thrives in weak institutional contexts (Shefter 1977). The framework of an authoritarian model of governance, on the other hand, brings an additional dimension to our perspective on corruption. It is no longer a mere dysfunction of a system ideally operating without it, but instead part and parcel of the system.

Corruption is an integral part of maintaining power in autocratic systems (Fjelde and Hegre 2014). Dictators never rule alone: they are always beholden to some kind of coalition or elite to maintain their rule for them. Erdoğan would

not be Erdoğan without his cronies in the media and construction sectors, and Orbán would not be Orbán without his grip on news media. Even traditional dictators, such as the Kim dynasty in North Korea, rely upon regime elites to maintain their grip on power, such as the military, police forces, or some other combination of elites. Corruption is a part of keeping these elites loyal to the ruling class. In specific, corruption in autocratic systems serves both as the "policy compromise" as well as "rent sharing" methods of buying loyalty from elites (Gandhi and Przeworski 2006).

A different yet similar way of looking at maintaining power is through the distributing private goods to the crucial elements of a regime (De Mesquita et al. 2005). In this framework, the ruler is incentivised to identify the precise coalition he requires to maintain in order to continue ruling. This coalition, ideally as narrow and limited as possible, is kept on board with the ruler through the issuing of private goods—luxury cars, extravagant dinners, aged whisky[1], decadent mansions[2]—while effectively disenfranchising those not in the ruling elite. While there are good criticisms of De Mesquita et al. (2005), the selectorate theory is useful in that it allows us the bridge the gap between the pursuit of private wealth and maintaining political power. In essence, private wealth in the context of an authoritarian system is translated into political power in a scale usually not observed in democratic societies.

On the other hand, the literature is not united in the conclusion that authoritarian regimes necessarily foster corruption. For instance, regimes with longer time horizons are found to be less corrupt than more short-lived regimes (Chang and Golden 2010), while regimes with binding legislatures tend to be less corrupt than those which have unbinding legislatures (Wright 2008).

The elite, however, do not only engage in the above. The situation described above would fall under embezzlement and theft, *not* bribery. Bribery is better illustrated with the examples Rose-Ackerman (1999) provides: companies seeking special treatment in legislation exchange for campaign contributions, or in the framework of an authoritarian system, giving a certain cut of their profits to the ruling elite in exchange for ease of business. A more critical perspective would argue that this is precisely the form of corruption prevalent in advanced capitalist economies.

This is only one level of corruption, where the ruling elite siphon wealth and resources from the country and use it in their power plays, or where the elite receive kickbacks in exchange for favours to the economic elite. Yet, this is not the only type of corruption which pervades societies. There is a difference between "grand" and "petty" corruption (Amundsen 1999; Doig and Theobald 2013), with the former referring to lawmakers being corrupt, while the latter can refer to anything from bureaucrats to the most local of civil servants. Petty corruption (sometimes referred to as street-level corruption) refers to agents such as police officers, customs inspectors, or government employees with power over daily minutiae of state functions (Nieuwbeerta, Geest, and Siegers 2003). The corruption involved here usually does not involve the siphoning of state assets to private bank accounts. Instead, it involves requesting informal kickbacks from the non-state actor in exchange for providing a service. This non-state actor can be a citizen applying

[1] News outlets have reported that the late North Korean leader, Kim Jong Il, spent as much as $30 million annually on imported liquor.

[2] Russian defence minister Sergei Shoigu has been accused of owning a mansion worth $18 million by Russian opposition figures.

for a driver's licence, or a small-business owner obtaining a permit to practice her profession. Whereas before the state was in a providing role, in this instance the state is the receiving role.

Formulating a robust theoretical definition of corruption and what it entails is beyond the scope of this paper. Corruption is subjective: what is considered corrupt and is illegal in one country or society may not necessarily be either in other contexts. For the purposes of this paper, however, I utilise the World Bank's defintion of it, referring to it as "the abuse of public power for private benefit". Such a definition fulfils my purpose here for this paper, which is to unpack the conceptual bundle which is "corruption" and empirically test how it relates to the maintenance of political power.

We often conceptualise corruption as a monolithic phenomenon. Rarely do we distinguish between corruption based on who does it, and the method by which it is done. I propose that there are different types of corruption. The V-Dem database codes four separate variables on corruption. These are not only differentiated by the level of corruption, but also by the nature of the corruption taking place. The data differentiates between "executive" and "public sector" corruption, the former relating to the "head of state, the head of government, and cabinet ministers" (Coppedge et al. 2023a, 114–15) while the latter refers to "typical person[s] employed by the public sector, excluding the military" (Coppedge et al. 2023a, 115–16). In addition to this, the V-Dem project also draws a line between "embezzlement and theft" and "bribery". Embezzlement and theft in their conceptualisation refers to the misappropriation of public funds for personal use. In contrast, bribery refers to the granting of favours in exchange for material gain.

When phrased so, it is not difficult to understand why I wish to study these two concepts separately. They are *different* types of problems, and while they are similar, they can reasonably be thought to lead to different outcomes in governance. This is true not only of the difference between embezzlement and bribery, but also the difference in the status of those committing this corruption. The consequences of cabinet-level officials embezzling funds *or* taking bribes will most certainly be different from that of a patrolling police officer doing the same. I propose that decoupling these two concepts from the larger concept of "corruption" allows a more nuanced approach to the study of corruption as a whole.

Why low-level (or street-level) bribery, instead of high-level embezzlement, graft, or bribery? People living in autocratic regimes do not, as Przeworski (2022) puts it, live thinking that they are witnessing history; they live through daily routines as we all do. It is an unfortunate yet meaningful aspect of the lives of people, and it is among many of the factors which shape their perception of their governments. This, in turn, makes the perception of corruption (or lack thereof) a meaningful way to understand how they will act towards their government.

Informational Autocracy and Corruption

At this point, I draw on the idea of informational autocracy. In this framework, rulers do not seek to impose a certain world-view upon the ruled, as Stalin, Mao, or Hitler did; they seek only to impose the impression of competence upon the ruled (Guriev and Treisman 2019, 101). There is a reason for this. Increasingly, heavy-handed methods of forcing compliance or consent with an autocratic regime is costly. These costs may be incurred in the domestic arena, or the international arena.

Regimes such as communist Poland and Romania are good example cases of excessive repression backfiring on a regime. Heavy-handed measures resulted in either mass protest leading to a non-violent revolution in the case of Poland, and to a violent revolution and the ouster of Ceaucescu in Romania. In other cases, the loss of international prestige and becoming a pariah state may carry significant material costs, as it has in Iran and North Korea, stunting economic development and therefore impacting political stability.

Modern autocrats are all-too aware of this problem. If they could win popular elections fairly, they would not be autocrats. Therefore, they are required to find means by which repression can be targeted, minimised, and used akin to a scalpel, as opposed to a sledgehammer. Therefore, they seek means by which they can intimidate, manipulate, and incentivise self-censorship.

This is not, of course, universally true. Were it so, we would not see any "traditional" dictatorships, yet the Gulf monarchies—Saudi Arabia, Qatar, Bahrain—still exist as bastions of traditional dictatorships despite some milquetoast efforts to improve their images in the eyes of a modern liberal audience. Therefore, there must be a deciding factor which pushes autocrats to pursue such tactics instead of more heavy-handed methods.

As alluded to before, I argue that this factor is the cost of repression. As the cost of repression rises, due to factors such as international condemnation, domestic unrest, or a combination of both domestic and international pressures, an autocrat will be less likely to resort to heavy-handed methods of repression.

Instead, as the cost of repression rises the autocrat will rely more on smarter repression methods. These methods can be very simple: intimidation through legal and institutional means is one such straightforward method. Vocal social media users in Turkey, for instance, may well see themselves be charged with "insulting the President" under Article 299 of the Turkish Penal Code, which proscribes a one to four year prison sentence. The prosecuted are rarely actually incarcerated. Instead, the process of a trial wears down the individual, and even the suspended sentence is enough to cow a person to mute or outright cease social media activity. This not only pacifies an individual, but also those around them. As knowledge of this case diffuses among friends and family, these people too become less likely to voice criticism of the government on social media, for fear of being prosecuted.

One prime way governments go about accomplishing this is through the creation of an illusion of competence. I propose that reducing or eliminating low-level bribery—or fostering an image of such—is a very good way of creating

the impression of a clean, well-functioning government. The knowledge of corruption generally spreads through news media or rumours, as evidence from China demonstrates (Zhu, Lu, and Shi 2013). In contexts where news media is tightly controlled, rumours and hearsay become the only way to reliably gauge corruption from a citizen's perspective. Since such means of information cannot, by virtue of their nature, be controlled, the root cause needs to be tackled. Therefore, the way to prevent citizens from talking about bribery among low-level officials is to tackle low-level corruption itself.

Consider an authoritarian state where ordinary citizens are exposed to situations in which they pay bribes regularly. These could take place in the form of frivolous speeding tickets, the renewing of passports, the issuance of business licences, or registration in state schools, to provide a few examples. In each of these instances, a citizen may be—informally—required to pay a bribe in order to obtain a service, without which the service would not be rendered (at least, in a reasonable time). By cracking down on such small-time bribery, a government could visibly improve a citizen's life and prevent them from thinking adversely about the government. In effect, it would be removing a tax on very ordinary daily activities.

Cracking down on low-level bribery also has the added benefit of not particularly affecting a core part of the ruling elite. Corruption probes inquiring after high-level embezzlement, graft, and theft risk alienating crucial parts of the ruling elite. Consider the Turkish media and construction conglomerates which proliferated during Erdoğan's rule. Were Erdoğan's government to suddenly go after these conglomerates for their corrupt dealings, there is a reasonable risk that their financial and political capital could turn against him, dealing a severe, if not fatal blow to his chances in the following election. Another example can be given from China: it is not far-fetched to claim that Xi Jinping's crack-down on corruption, targeting high-ranking Communist Party officials, has a political angle to it, involving political manoeuvring in order to minimise the political risk to Xi himself as well as to his allies in the Communist Party.

In other words, pursuing the interests of rival elites is risky, even in the context of an autocracy. On the other hand, I assume that the perpetrators of low-level bribery are disorganised and relatively ineffectual, aside from their role as voters. It is difficult to imagine civil servants organising against the government due to problems they face in collecting bribes from citizens. Even if they did, it does not make much sense that they would be able to become a political force based off of this particular issue.

Therefore, lower levels of low-level (or street-level) bribery is a visible means of demonstrating competence, as well as affirming commitment to a clean government to the public. In addition, ensuring lower levels of low-level bribery has less political risks than ensuring less high-level corruption (both bribery and embezzlement).

This makes tackling low-level bribery a good avenue of being an "informational autocrat". I propose that as the cost of repression rises, autocratic regimes will resort to cracking down on low-level bribery as a means of creating the image of competence amongst the public they govern. Due to practical difficulties in measuring the cost of repression across various countries, I will operationalise this dependent variable as the political violence which takes place. My

reasoning for this is that if political violence were possible and relatively easy to conduct, it would occur. Therefore, political violence which does not occur in the context of an authoritarian regime is taken as a sign that there are higher costs associated with it. Therefore, the first hypothesis of this paper is as follows:

H_1: Higher costs of repression will cause lower values of low-level bribery.

Since measuring the cost of repression directly is difficult if not impossible, I measure the cost of repression through a proxy. This proxy is the "freedom from physical violence index" created by the Varieties of Democracy Project (Coppedge et al. 2023b), the details of which will be elaborated on in the following section of the paper. The underlying assumption behind this proxy measure is that if repression *can* occur with tolerable cost, it *will* occur. On the other hand, if the ruler determines that the cost of repression is intolerably high, it will *not* occur.

Data

In order to accomplish the goals stated in the previous section, I will draw on a number of different data. First and foremost, the Varieties of Democracy Dataset (Coppedge et al. 2023b) is used for a vast majority of this paper. The Varieties of Democracy (V-Dem) data is an expert-coded database encompassing virtually every state from the 19th century onwards. It contains more than 4,500 variables in a country-year format, gauging various aspects of a state, from its concentration of political power to its levels of educational indoctrination.

For the purposes of this paper, I restrict my sample to only include autocratic governments. In practice, this means including countries where the electoral democracy index is equal to or below 0.42, as recommended by Kasuya and Mori (2019). The temporal scale of the V-Dem data extends as far back as 1789, though practically speaking, most data entries for the variables in question start in the 20th century.

The nature of the data has disadvantages alongside its advantages. The first and foremost advantage using the V-Dem data brings is that it provides some measure for the concept I am trying to capture. Due to its nature, corruption is inherently elusive to a researcher's eyes. It necessitates either the development of clever proxy measures, or some type of subjective evaluation of a country's level of corruption. The V-Dem data provides the latter. It provides a reliable estimate of every country's levels of corruption in various spheres with a replicable and transparent codebook. The second advantage of utilising V-Dem data is the sheer number of data points it provides. While more data is not necessarily always good, the high number of data points contained within permits analysis to be sufficiently robust.

The utilisation of V-Dem data is not without its weaknesses. A fundamental issue that arises with such a dataset is the inevitable subjectivity of the subject matter. Inherently, this paper assumes that a certain type of political behaviour—that defined by the researchers of the V-Dem project—necessarily constitutes corruption. This is an inherent limitation of this paper. This data type is inextricably tied to how corruption is conceptualised in the advanced, post-industrial societies of the world, and may consider behaviours considered ordinary, ethical, or legal in other con-

text to be corrupt, or vice versa.

There is some defence to be made in favour of this conceptualisation. While we may debate the subjectivity of corruption, the adverse political and economic outcomes from corrupt practices are mostly evident. Therefore, absent a better conceptualisation of corruption, the way in which the V-Dem Project has conceptualised corruption appears to capture what it seeks to capture. A less abstract and more material problem with this data is that it is not based upon a particular measure or set of measures, but instead the knowledge of coders. While the V-Dem Project is meticulous and rigorous in its coding practices, this is still a factor which needs to be kept in mind regarding the quality of the data.

Other data are also utilised, though not in the primary analyses. Guriev and Treisman (2019) provide a time-series data of mass killings in a number of countries in their replication materials. I use this data as a robustness check to see whether the existence of mass killings in a given number of years affects the outcome variable. World Bank data is used specifically for other auxiliary analyses, to replace the main dependent variable with another as another form of robustness check. In addition, I use some World Bank data to incorporate some control variables such as aid as a percentage of gross national income, and natural resource rents as a percentage of gross domestic product. The World Bank data is only available from years 1960 onwards, hence limiting the scope of the analyses run through it; on the upside, the measure used is a direct measure and not the result of expert coding, explaining the robustness it achieves.

The dependent variable I use is the V-Dem "public sector corrupt exchanges" variable. This is a variable coded ordinally by coders and transformed into an integral variable by the V-Dem Project (Coppedge et al. 2023a, 115–16). Besides the transformation conducted by the V-Dem Project, I also reverse the scale of the variable. Normally, the variable is coded from 0 to 4, with higher values corresponding to *less* corruption. This coding scheme makes it extremely unintuitive to interpret regression results with minimal advantages. In reversing it, I make it so that higher values correspond to higher values of corruption, which is easier to interpret.

The primary independent variable used is the "physical violence index". This is an interval variable, coded from 0 to 1, with higher values representing *more freedom from physical violence* (Coppedge et al. 2023a, 297). In other words, as the value gets closer to 1, the less political violence is expected in the country. While the coding is understandable, I have also reversed this variable's scale in order to make it more easily interpretable.

I utilise other control variables. One such variable is the degree to which the government legitimises its rule on performance grounds. This performance is generally related to good economic outcomes, clean government, and physical security of the governed. This is a crucial control variable, as the theory of informational autocracy proposes that rulers will seek to avoid, generally, utilising heavy-handed means of repression where possible (or, where unnecessary). As covered in the previous section, such regimes can be expected to legitimise their rule through the image of a competent government in the aforementioned areas.

I also add in the "electoral democracy index" for some models. This covers the bare necessities of a democratic

system, i.e., free (not necessarily *fair*[3]) elections. This is meant to capture the variation in how authoritarian countries may pay lip service to the ideal of democracy, or go through the motions of democratic rituals. Another control variable is the gross domestic product (GDP) per capita. This is a general variable used to control for the economic development of the country at that year.

In addition, I also include some other controls in some models for robustness purposes. The first is a regional control, coding countries according to their geopolitical regions. Here, the V-Dem data defines 10 geopolitical regions (Coppedge et al. 2023a, 360) from Teorell et al. (2023). The second is a control as to whether a country could be considered communist or not. As "communism" in this instance refers to a bundle of institutions and political practices, the definition of which is beyond the scope of this paper, I use data from Reuter (2022) to determine whether a country is communist or not. I expand the range of the years covered by Reuter (2022) in order to match the years covered by the V-Dem data, hand-coding countries as communist or not communist.

Table 1: Descriptive statistics for variables

	Mean	SD	Max	Min	N
Low-level bribery	0.15	1.43	4.13	−3.21	27097
Physical violence index	0.52	0.30	0.99	0.01	27432
Performance legitimation	−0.09	1.35	3.18	−4.29	18736
Electoral democracy index	0.26	0.26	0.92	0.01	26273
GDP per capita	6.42	10.78	156.63	0.29	22153
Time required to open business (days)	34.03	49.45	697.00	0.50	2697
Aid as % of GNI	6.18	9.06	137.59	−0.72	6403
Natural resource income as % of GDP	0.08	0.11	0.88	0.00	7620

Table 1 shows descriptive statistics for the variables used. There is a large number of observations for most of the main variables and a significant degree of variation, demonstrating the value of this research. The low number of observations for the time required to open a business is due to data being available only from 2003 onwards from the World Bank.

Analysis

I initially construct four different models with an increasing number of variables. In all of the following models, shown in Table 1, low-level bribery is the dependent variable. On its own, it is seen that physical violence has a positive and statistically significant effect on low-level bribery. In more substantive terms, higher rates of physical violence generate higher rates of low-level bribery.

[3]Countries such as Turkey, Hungary, and Poland have free and meaningfully contested elections which are nevertheless significantly biased towards the incumbents through a combination of media control, intimidation, and other means of repressing the opposition.

A crucial part of informational autocrats, however, is the effort to convince citizens of the government's right to rule based on the competence of the government. The second model, therefore, includes both the physical violence index as well as the performance legitimation index as the independent variables.

The result from Model 2 shows to us that higher amounts of physical violence *and* higher degrees of performance legitimation lead to higher values on the low-level bribery index. This is puzzling, and does not comport with the theory laid out in the previous sections. On the other hand, Model 3 and 4 include the logged GDP per capita of a country in order to capture the level of development, and the electoral democracy index in order to control for the varying levels of democratic processes within autocracies themselves.

Doing so renders performance legitimation statistically insignificant, while the effect of physical violence remains directionally the same and statistically significant at the same time. The degree to which an autocracy is "democratic" also has a statistically significant positive effect on low-level bribery. This is a puzzling outcome, and will be discussed further in the following section of this paper.

Table 2: Basic Models

	Low-level bribery				
	(1)	(2)	(3)	(4)	(5)
Physical violence index	2.209***	1.681***	1.762***	2.196***	1.495***
	(0.266)	(0.330)	(0.346)	(0.341)	(0.452)
Performance legitimation		0.128**	0.026	−0.027	−0.051
		(0.053)	(0.059)	(0.060)	(0.075)
Logged GDP per capita			0.132*	0.152*	0.088
			(0.079)	(0.082)	(0.096)
Electoral democracy index				2.575***	2.237***
				(0.624)	(0.664)
Aid as % of GNI					0.000
					(0.006)
Intercept	−0.280	0.144	0.063	−0.673**	0.216
	(0.178)	(0.216)	(0.244)	(0.287)	(0.384)
Num.Obs.	20 003	12 907	9873	9873	3723
R2	0.183	0.108	0.106	0.141	0.085
R2 Adj.	0.183	0.108	0.105	0.141	0.084
AIC	84 693.0	54 269.5	43 364.8	43 696.2	18 259.3

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$
Standard errors clustered by country.

Then, I add in the regional control, a control for whether a country is communist or not, as well as variables including the aid a country gets as a percentage of gross national income (GNI) and natural resource wealth—from petroleum, natural gas, or precious metals—as a percentage of gross domestic product (GDP).

Table 3: Extended models with regional controls

	Low-level bribery		
	(1)	(2)	(3)
Physical violence index	1.930***	1.965***	1.089**
	(0.342)	(0.337)	(0.456)
Performance legitimation	−0.024	−0.011	−0.104
	(0.056)	(0.056)	(0.085)
Logged GDP per capita	0.149	0.151	−0.142
	(0.103)	(0.103)	(0.127)
Electoral democracy index	2.502***	2.342***	2.392***
	(0.616)	(0.629)	(0.749)
Aid as % of GNI			−0.008
			(0.006)
Natural resource rents as % of GDP			1.403***
			(0.539)
Region			
Eastern Europe and post-Soviet	0.855**	1.010***	
	(0.390)	(0.361)	
Latin America	1.374***	1.386***	−0.350
	(0.311)	(0.314)	(0.365)
North Africa and Middle East	1.185***	1.176***	−0.484
	(0.268)	(0.267)	(0.319)
Sub-Saharan Africa	1.088***	1.100***	−0.547
	(0.283)	(0.282)	(0.335)
Eastern Asia	1.062**	1.170**	−0.173
	(0.507)	(0.574)	(0.632)
Southeastern Asia	1.193***	1.239***	−0.530
	(0.456)	(0.466)	(0.552)
Southern Asia	0.756*	0.770*	−0.649
	(0.420)	(0.421)	(0.437)
Pacific	0.430	0.454	−1.195***
	(0.510)	(0.511)	(0.435)
Caribbean	−0.122	−0.111	−1.203*
	(0.408)	(0.406)	(0.644)
Intercept	−1.540***	−1.528***	1.230**
	(0.361)	(0.359)	(0.496)
Num.Obs.	9873	9873	3162
R2	0.206	0.212	0.155
R2 Adj.	0.205	0.211	0.151
AIC	44 286.6	44 341.9	15 964.0

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$
Standard errors clustered by country.

The results here are somewhat interesting. In both models, the relationship between physical violence and low-level bribery remains positive and statistically significant, while a country being communist or not has no statistical bearing on this relationship. The region "Western Europe" serves as the reference level for the region variable. On its own, some regions exhibit statistical significance, but the addition of the natural resource and aid variables in the third model removes much of this, while natural resource rents have a statistically significant positive relationship with low-level bribery.

Finally, as a robustness check, I change the dependent variable to a proxy measure of low-level bribery. This is the time it takes to open a business in days, with data drawn from the World Bank. However, the models constructed with this dependent variable have a substantial weakness in that data is only available from 2003 onwards, which severely restricts the sample size relative to the primary models.

Table 4: Basic models with alternative dependent variable

	Time to open business (days)				
	(1)	(2)	(3)	(4)	(5)
Physical violence index	35.707**	34.071*	30.110	25.097	11.463
	(15.008)	(19.383)	(22.507)	(23.624)	(23.644)
Performance legitimation		−1.187	−0.286	−0.450	−1.344
		(4.899)	(4.951)	(4.949)	(5.157)
Logged GDP per capita			−2.673	−3.672	−4.681
			(4.095)	(4.690)	(5.632)
Electoral democracy index				−24.368	−57.288
				(32.140)	(38.689)
Aid as % of GNI					−0.461
					(0.390)
Natural resource rents as % of GDP					56.154**
					(26.426)
Intercept	18.738**	20.297*	26.805	37.620	51.606*
	(7.519)	(12.031)	(17.947)	(24.305)	(28.059)
Num.Obs.	979	979	949	949	823
R2	0.053	0.054	0.053	0.056	0.087
R2 Adj.	0.052	0.052	0.050	0.052	0.081
AIC	9890.2	9891.1	9605.9	9605.4	8258.9

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$
Standard errors clustered by country.

Even though the sample size is most likely responsible for less-than-ideal results, we still see that the simple relationship in the first model holds up even when we change the dependent variable to something that approaches low-level bribery from another perspective, albeit at the 95% confidence interval. Indeed, we see that the physical violence index is positively related to the time it takes to open a business. Substantially, higher levels of physical violence correspond to more time consumed to open a business, which could indicate the necessity of going through either long or frequent bureaucratic processes, which could also increase the frequency of bribes needed to get through the processes successfully.

On the other hand, the final model where aid and natural resource rents are included changes the picture. Physical violence ceases to be statistically significant in this model, while natural resource rents have a substantial and statistically significant impact on the number of days it takes to open a business.

Results and Discussion

Overall, the models demonstrate that there is a significant—both statistical and substantial—relationship between political violence and low-level bribery. The first set of models clearly demonstrates that as political violence in autocracies rise, so too does low-level bribery. This persists through other models, even as we add in control variables such as electoral democracy index and aid as a percentage of gross national income.

Figure 1 visualises this simple relationship, with only one independent variable, which is the physical violence index. The data points have been significantly adjusted to be less noticeable, as their number draws attention away from the linear relationship. As seen in the figure, there is a linear and positive relationship between physical violence and low-level bribery among autocracies.

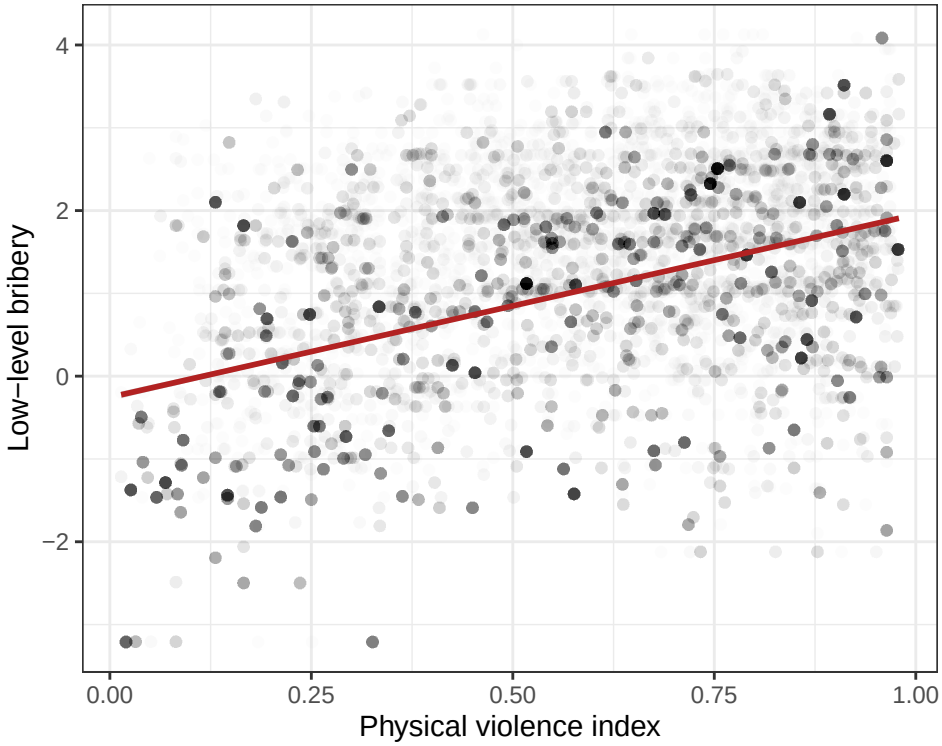

Figure 1: Physical violence and low-level bribery

It should be mentioned here that what is referred to as the physical violence index in these models seeks to capture *political* violence perpetrated by the state or state actors. Therefore, this directly links political violence—direct means of repression—with higher rates of low-level bribery. In other words, we can reject the null for our hypothesis.

We do see, across almost all models, that the electoral democracy index also has a positive relationship with low-level bribery in autocracies. The sample used in all of the models includes only autocratic regimes, as mentioned in the data section. Therefore, this is a meaningful control variable in that it captures the variation among authoritarian

regimes in how they incorporate democratic processes and rituals in their otherwise closed systems of government. This is puzzling, and needs to be addressed adequately.

Selectorate theory (De Mesquita et al. 2005) offers one plausible explanation. As the electoral democracy index in an autocratic system rises, we can imagine that the number of influential actors in the system rises. This generates more points where the influential—state actors—can extract prices from the citizenry.

There may also be an endogeneity problem in including the electoral democracy index alongside the physical violence index, in that the two tend to be strongly correlated.

We see a similar situation when the dependent variable is changed to how long it takes to open a business in a country in a given year, with a positive linear relationship observed there as well.

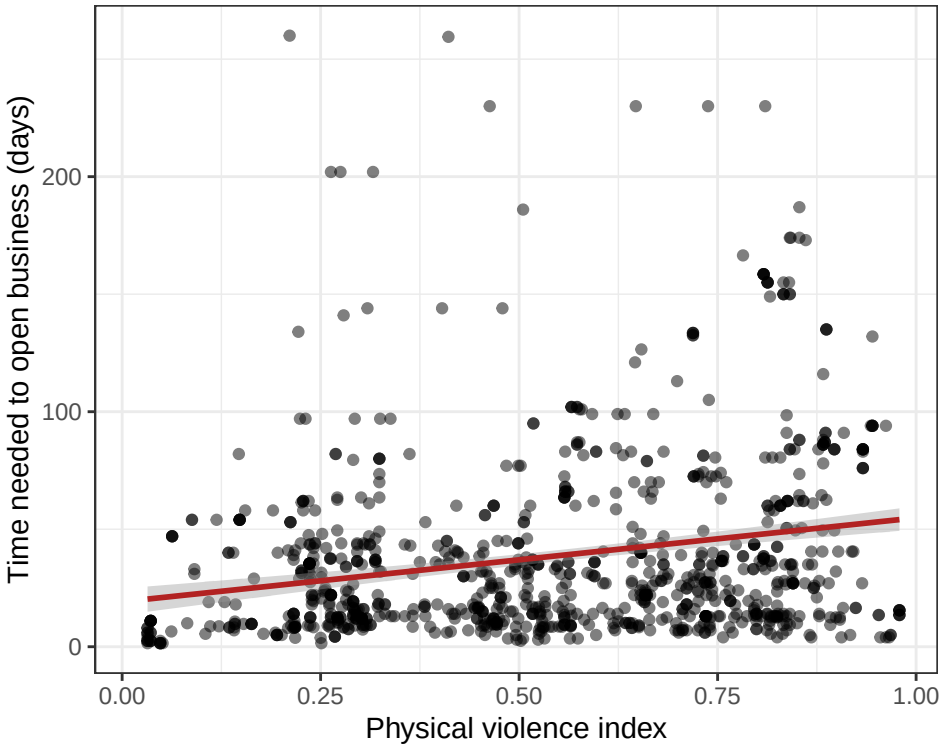

Figure 2: Physical violence and time taken to open a business

Conclusion

There is extensive room for further research on individual types and levels of corruption. Taken as a monolithic whole, the concept of corruption can obfuscate the empirical reality of how corruption takes place, and who it benefits. There is also a relationship between political regimes and corruption which goes beyond conceptualising corruption as a mere unwanted side-effect of governance structures.

In this paper, I have endeavoured to unpack this concept, by breaking down the phenomenon of corruption both

by the level at which it takes place, as well as by the object and the subject of the action. Specifically, I have explored the relationship between low-level (or "street-level") corruption and political repression in order to empirically test an aspect of the informational theory of autocracy proposed by Guriev and Treisman (2019).

References

Amundsen, Inge. 1999. "Political Corruption: An Introduction to the Issues." *CMI Working Paper*.

Chang, Eric, and Miriam A Golden. 2010. "Sources of Corruption in Authoritarian Regimes." *Social Science Quarterly* 91 (1): 1–20.

Coppedge, Michael, John Gerring, Carl Henrik Knutsen, Staffan I. Lindberg, Jan Teorell, David Altman, Michael Bernhard, et al. 2023a. "V-Dem Codebook v13." Varieties of Democracy (V-Dem) Project. https://doi.org/10.23696/vdemds22.

———, et al. 2023b. "V-Dem Country-Year/Country-Date Dataset v13." Varieties of Democracy (V-Dem) Project. https://doi.org/10.23696/vdemds22.

De Mesquita, Bruce Bueno, Alastair Smith, Randolph M. Siverson, and James D. Morrow. 2005. *The Logic of Political Survival*. MIT press.

Doig, Alan, and Robin Theobald. 2013. *Corruption and Democratisation*. Routledge.

Fjelde, Hanne, and Håvard Hegre. 2014. "Political Corruption and Institutional Stability." *Studies in Comparative International Development* 49: 267–99.

Gandhi, Jennifer, and Adam Przeworski. 2006. "Cooperation, Cooptation, and Rebellion Under Dictatorships." *Economics & Politics* 18 (1): 1–26.

Gerschewski, Johannes. 2013. "The Three Pillars of Stability: Legitimation, Repression, and Co-Optation in Autocratic Regimes." *Democratization* 20 (1): 13–38. https://doi.org/10.1080/13510347.2013.738860.

Guriev, Sergei, and Daniel Treisman. 2019. "Informational Autocrats." *Journal of Economic Perspectives* 33 (4): 100–127. https://doi.org/10.1257/jep.33.4.100.

———. 2020. "A Theory of Informational Autocracy." *Journal of Public Economics* 186: 104–58.

Kasuya, Yuko, and Kota Mori. 2019. "Better Regime Cutoffs for Continuous Democracy Measures." *V-Dem Users Working Paper Series* 25: 1–31.

Lamberova, Natalia. 2021. "The Puzzling Politics of r&d: Signaling Competence Through Risky Projects." *Journal of Comparative Economics* 49 (3): 801–18. https://doi.org/https://doi.org/10.1016/j.jce.2021.01.002.

Nieuwbeerta, Paul, Gerrit De Geest, and Jacques Siegers. 2003. "Street-Level Corruption in Industrialized and Developing Countries." *European Societies* 5 (2): 139–65. https://doi.org/10.1080/1461669032000072265.

Persson, Torsten, Guido Tabellini, and Francesco Trebbi. 2003. "Electoral Rules and Corruption." *Journal of the European Economic Association* 1 (4): 958–89. https://doi.org/10.1162/154247603322493203.

Przeworski, Adam. 2022. "Formal Models of Authoritarian Regimes: A Critique." *Perspectives on Politics*, 1–10. https://doi.org/10.1017/S1537592722002067.

Reuter, Ora John. 2022. "Why Is Party-Based Autocracy More Durable? Examining the Role of Elite Institutions and

Mass Organization." *Democratization* 29 (6): 1014–34.

Rose-Ackerman, Susan. 1999. "Political Corruption and Democracy." *Connecticut Journal of International Law* 14: 363–78.

Shefter, Martin. 1977. "Party and Patronage: Germany, England, and Italy." *Politics & Society* 7 (4): 403–51. https://doi.org/10.1177/003232927700700402.

Teorell, Jan, Aksel Sundström, Sören Holmberg, Bo Rothstein, Natalia Alvarado Pachon, Cem Mert Dalli, and Yente Meijers. 2023. "Quality of Government Standard Dataset version Jan23." University of Gothenburg: The Quality of Government Institute. 10.18157/qogstdjan23.

Wright, Joseph. 2008. "Do Authoritarian Institutions Constrain? How Legislatures Affect Economic Growth and Investment." *American Journal of Political Science* 52 (2): 322–43.

Zhu, Jiangnan, Jie Lu, and Tianjian Shi. 2013. "When Grapevine News Meets Mass Media: Different Information Sources and Popular Perceptions of Government Corruption in Mainland China." *Comparative Political Studies* 46 (8): 920–46. https://doi.org/10.1177/0010414012463886.

Appendices

Appendix A

Table 5: Model 14

	Low-level bribery
	(1)
Performance legitimation	−0.111
	(0.103)
Logged GDP per capita	0.225
	(0.150)
Electoral democracy index	0.267
	(0.697)
Eastern Europe and post-Soviet	0.495
	(0.698)
Region	
Latin America	1.116*
	(0.585)
North Africa and Middle East	0.913
	(0.578)
Sub-Saharan Africa	1.295**
	(0.578)
Eastern Asia	1.791*
	(1.069)
Southeastern Asia	2.078***
	(0.627)
Southern Asia	1.093*
	(0.584)
Pacific	−0.168
	(0.630)
Caribbean	0.783
	(0.551)
Intercept	0.314
	(0.611)
Num.Obs.	2425
R2	0.120
R2 Adj.	0.115
AIC	11 639.7

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Standard errors clustered by country.

Appendix B

Table 6: Models 1-5

	Low-level bribery				
	(1)	(2)	(3)	(4)	(5)
Physical violence index	2.209***	1.681***	1.762***	2.196***	1.495***
	(0.253)	(0.337)	(0.331)	(0.314)	(0.453)
Performance legitimation		0.128**	0.026	−0.027	−0.051
		(0.061)	(0.062)	(0.059)	(0.074)
Logged GDP per capita			0.132	0.152*	0.088
			(0.088)	(0.085)	(0.104)
Electoral democracy index				2.575***	2.237***
				(0.470)	(0.604)
Aid as % of GNI					0.000
					(0.005)
Intercept	−0.280*	0.144	0.063	−0.673***	0.216
	(0.157)	(0.203)	(0.220)	(0.229)	(0.333)
Num.Obs.	20 003	12 907	9873	9873	3723
R2	0.183	0.108	0.106	0.141	0.085
R2 Adj.	0.183	0.108	0.105	0.141	0.084
AIC	64 768.4	41 608.8	30 961.2	30 563.1	11 130.7

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$