Corruption for Competence

Desiree A. Desierto[*]

George Mason University

April 5, 2023

Abstract

When do citizens tolerate corrupt, but competent, politicians? This paper formally establishes conditions under which citizens trade off corruption for competence. First, the regime has to be sufficiently democratic such that a corrupt politician has to be acceptable to a large enough coalition of citizens in order to stay in power. Second, institutions are such that the politician can more easily obtain rents by taking bribes in exchange for spending revenues on public goods, rather than by stealing the revenues outright: the former case can generate more public goods than the latter. Under these two conditions, competence sustains corruption, and vice-versa.

keywords: grand corruption, rent-seeking, theft, bribery

1   Introduction

Consider a politician who wants to maximize rents. Extracting rents, however, requires staying in power. In a democracy, this means winning elections; in an autocracy, keeping loyal a coalition of supporters. In both cases, political competition checks the politician's ability to extract rents. However, citizens cannot fully prevent such rent-seeking, since political turnover always entails costs.[1] Equilibrium rents are therefore an interior solution

---

[*]Email: desiert@gmu.edu; Address: Economics Department, George Mason University 4400 University Drive, 3G4 Fairfax, VA 22030

[1]Persson and Tabellini (2000), for instance, make this explicit in models in which politicians cannot contract future performance, making promises by a 'benign' opposition non-credible, or in which citizens cannot know ex ante the type of politician they are selecting. Contractual incompleteness and imperfect information thus afford the incumbent politician an inherent advantage. A similar reasoning is found in agency theory, e.g. Holmström (1979); Holmstrom (1982); Holmström (1999), in which firm managers engage in moral hazard and why reputation or career concerns alone cannot solve this.

whose distance from the corners, i.e. maximum rents or zero rents, depends on the strength of 'political punishment'.

Note, however, an underlying assumption—citizens dislike political rents. At first glance, this appears unassailable: why would citizens want politicians to extract rents? Yet there are two reasons why citizens might tolerate political rent-seeking. One is that some of them may share in the rents. Existing models, from lobbying and special-interest politics (Grossman and Helpman (1994, 2001), Dixit et al. (1997), Bernheim and Whinston (1986a,b)) to public good provision via selectorate theory (Bueno de Mesquita et al., 1999, 2003; Bueno De Mesquita and Smith, 2010; Smith, 2008), show precisely how government revenues can be targeted toward political patrons. The other reason is that the politician, in exchange for bribes or kickbacks, can spend the revenues on public goods from which ordinary citizens can benefit. Citizens could then be willing to tolerate the rent-seeking if it results in higher public good provision than would otherwise be the case.

Indeed, empirical findings from Latin America have suggested that citizens trade off corruption for competence (See Rosas and Manzetti (2015), Choi and Woo (2013), Zechmeister and Zizumbo-Colunga (2013), and Winters and Weitz-Shapiro (2013)). Winters and Weitz-Shapiro (2013) describe the attitude of voters concerning corrupt politicians using the Portuguese "Rouba, mas faz" ("He robs, but he gets things done"). This could explain why informing voters about corrupt candidates does not seem to improve electoral accountability, as demonstrated by recent field experimental evidence, e.g. Boas et al. (2019), Chong, De La O, Karlan, and Wantchekon (2015), and Arias, Larreguy, Marshall, and Querubín (2022). Non-experimental evidence also suggest that electoral sanctions have little bite. Avis, Ferraz, and Finan (2018) show that Brazilian mayors are instead deterred from engaging in corrupt behavior because of legal punishments. Chang (2020) finds, using data from East Asia, that voters are more tolerant of corrupt politicians when corruption is institutionalized.

This is not to say, however, that voters never punish politician malfeasance and corruption. Recent evidence by Foresta (2020), for instance, shows that electoral sanctions

2

can be effective against politicians involved in corruption scandals in Italy. It is thus important to understand the conditions under which voters sanction or tolerate corrupt politicians. The precise mechanism by which voters may trade-off corruption for competence is still unclear, as studies thus far are mostly empirical. To fill this gap, I propose a simple model that formally establishes conditions that can generate the trade-off.

To motivate, consider two of the highest profile corruption cases to date. The Petrobras scandal in Brazil, which erupted in 2014, is the largest **bribery** scandal in Latin America to date. A total of $2.1 billion dollars were allegedly paid by construction firms to executives of state-owned oil company Petroleo Brasileiro SA (Petrobras) in exchange for contracted projects, and funneled to the Workers Party, including former presidents Michel Temer and Lula Da Silva. An even larger corruption scandal is the 1MDB **theft** case, exposed in 2015, in which $4.5 billion dollars were allegedly stolen from the funds of the Malaysia government development company 1 Malaysia Development Berhad (1MDB), of which $700 million dollars appears to have been transferred to the personal bank account of former Malaysian prime minister Najib Razak.

These two cases are examples of grand corruption involving high level elected public officials. The Brazil case is in the form of bribery in the allocation of public goods, i.e. the construction projects, while the Malaysian case is in the form of theft of public funds. Note also that while both countries are democratic regimes, Brazil has consistently had higher democracy scores than Malaysia. From measures constructed by the Varieties of Democracy (V–Dem) Institute, the average electoral democracy index of Brazil between 2010 to 2019 is 0.82 out of a highest possible score of 1, while Malaysia's is only 0.33.

In my model, the type of regime, and therefore the extent of citizen accountability, interacts with the kind of corruption that the politician is able to engage in. The key question is under what conditions do citizens tolerate a corrupt politician. I obtain two related conditions. First, the trade-off is more likely to occur the more democratic the regime, that is, when political turnover is largely determined by ordinary citizens. In this case, a corrupt politician has to 'bargain' with citizens to stay in power, and cannot

unilaterally engage in corrupt behavior and expect to get away with it. The second condition specifies the nature of the bargain. Specifically, the trade-off between competence and corruption is more likely when institutions focus predominantly more on enforcing against theft, rather than bribery. In this case it would be difficult for the politician to steal government funds, which means she is constrained to spend them. She is also induced to spend them on public goods and services because she can extract bribes from public spending contracts. Citizens are thus more likely to tolerate the rent-seeking because they can benefit from public goods. (In contrast, only the politician and her patrons can benefit from stolen revenues.) Lastly, it follows that if democratic regimes also tend to have institutions that effectively enforce against theft, then the trade-off is generally stronger in more democratic regimes.

These results can potentially explain why public officials in Brazil could not simply siphon off the funds from Petrobras, but first had to allocate them towards construction projects, before taking a kickback. In a more democratic regime, officials are more constrained by voters, and therefore they have to provide commensurate public goods. In contrast, that officials in Malaysia appeared to have blatantly stolen public funds reveals their belief that citizen accountability and, hence, the constraint from voters, is low.

Such explanation, of course, is still highly suggestive and warrants careful empirical investigation. But the intuition builds on the widely held view that a politician's accountability to citizens is inextricably tied with public funds. Bates and Donald Lien (1985), North and Weingast (1989) and Tilly (1992) have long argued that the commitment of leaders to their citizens become more credible the more reliant they are on tax revenues and loans – funds that are obtained from the citizens. The implication is that rentier states, e.g. oil and resource-rich countries, that are less reliant on revenues obtained from citizens are less accountable and are thus prone to corruption and other bad governance outcomes, i.e. the political resource curse. (See, e.g., Ross (2015), Desierto (2018b), Wiens, Poast, and Clark (2014), Brollo et al. (2013), Fisman and Gatti (2002).) While existing papers focus on the implicit bargain between politicians and citizens concerning

the source of public funds, my model analyzes another source of bargain – the *use* of such funds, i.e. on public goods or direct, private, transfer to the politician and her patrons.

The paper thus contributes to the formal literature on political rent-seeking. A similar intuition and set of results that imply a trade-off can be seen in Coate and Morris (1995) in which a politician distributes rents to special interests through public projects, rather than directly transferring revenues to them. More generally, the Virginia School of political economy argues that politicians prefer certain forms of redistribution, e.g. indirectly through public good expenditures, than other, more direct transfers. However, this is driven by the assumption of imperfect information on the part of voters. In contrast, our model shows that citizens can knowingly, i.e. with perfect information, tolerate a corrupt politician that extracts bribes in exchange for providing public goods.

The paper also has implications on the accountability of politicians who have discretion over government revenues. While the formal literature on electoral accountability is large—see Duggan and Martinelli (2017) and Ashworth (2012) for surveys—to the best of my knowledge, none distinguishes between the types of corruption. An exception is Martinelli (2022), in which low-ranked politicians take bribes, and the politician who is voted to a higher-ranked position extracts rents directly and also takes bribes.[2]

My model is also not confined to *electoral* accountability as I do not use elections to specify the process of political turnover. Rather, I adopt the selectorate framework of Bueno de Mesquita et al. (1999, 2003) and Bueno De Mesquita and Smith (2010), in which the political leader needs to maintain the support of a coalition W of members of the 'selectorate' S in order to stay in power. The fraction $\frac{W}{S}$ then captures the type of regime in a simple way. For instance, in majoritarian democracies, one expects this value to be at least one-half, as at least half of the selectorate determines the leader's political survival. In autocratic regimes, $\frac{W}{S}$ is less than one half, and would be closer to zero the fewer the 'elite' members who can be part of the leader's coalition. The model can thus obtain

---

[2]See, also, Desierto (2021a) in which the political resource curse is modeled through theft and bribery, and Desierto (2021b) for an empirical measurement of Philippine mayors' rents from theft and from bribery.

results not only for different, continuous, degrees of democracy - e.g. Brazil and Malaysia, but also for the whole spectrum of regimes, including autocracies. In this manner, it also makes a related contribution to the formal literature on accountability and corruption in autocratic regimes, which is relatively scant (see, e.g., Hollyer and Wantchekon (2015) and Dixit (2010).)

The remainder of the paper is organized as follows. In the next section, I formally define theft and bribery and allow for the possibility that the politician who has discretion over government revenues can simultaneously engage in both. Section 3 presents the selectorate model, while Section 4 provides the conditions that generate the trade-off. Section 5 concludes.

2   Theft and Bribery

I focus on grand corruption that is committed by high-level politicians, as opposed to bureaucratic corruption that is committed by government-appointed public officials.[3] The distinction is important, as it determines the relevant checks and balances. Corrupt bureaucrats face legal sanctions and are subject to the authority of the appointing government. With good institutions and a generally non-rent seeking government, bureaucratic corruption can be effectively monitored and controlled. As Becker and Stigler (1974) have shown, an increase in 'efficiency wages' of bureaucrats can raise the latters' opportunity cost of malfeasance.

In contrast, the control of unappointed, high level, politicians rests on constitutional checks and balances and the threat of political turnover, that is, of being replaced by political opponents (Acemoglu, Robinson, and Torvik, 2013). However, political competition and turnover can be a weak tool. In fact, Avis, Ferraz, and Finan (2018) show that

---

[3]Rose-Ackerman (1978, 1999, 2007) makes a similar categorization – low level corruption that is committed by bureaucrats in the performance of their administrative duties, and high level corruption committed by politicians in their choice of intervention. For a survey of bureaucratic corruption, see Tirole (1992), Bardhan (1997), Aidt (2003), and Banerjee, Mullainathan, and Hanna (2012). For grand corruption, see Rose-Ackerman (2011b), Rose-Ackerman (2011a), Rose-Ackerman and Palifka (2016), and Fisman and Golden (2017).

the threat of legal, rather than political, sanctions has a relatively stronger corruption-deterrent effect among mayors in Brazil. In my model, I show precisely why the political tool is blunt, by highlighting a particular bargain that corrupt politicians can make with citizens to allow them to stay in power.

The key to identifying this bargain is to acknowledge the different ways by which the corrupt politician can obtain rents. There are indeed many kinds of grand corruption, including cronyism and nepotism, and the rents obtained from government regulations and subsidies, price distortions, and the privatization and nationalization of public goods and services (see Rose-Ackerman, 1999). However, I focus on two major types of grand corruption that are associated with the allocation of public funds. As shown in Desierto (2021a, 2021b), a high-level politician that has discretion over the government budget can obtain rents from both sides of the budget – by stealing some of the revenues, and by spending them on contracts for public goods and services in exchange for bribes from the contractors. Shleifer and Vishny (1993) make a similar distinction for bureaucratic corruption. That is, a bureaucrat who has discretion over the allocation of some public good or service can engage in 'corruption with theft', whereby she provides the service, obtains the official payment for the service and a bribe for expediting it, but does not remit the payment to the government. She can also engage in 'corruption without theft', whereby she remits the payment but keeps the bribe for herself.

By focusing on theft and bribery, it becomes apparent that the latter type of corruption is likely to be the more important source of the bargain between corrupt politicians and citizens. Bribe-taking is done while providing public goods and services which benefit ordinary citizens, while theft is a diversion of public funds to the politician and her patrons which confers no gain to ordinary citizens. The bargain is also likely to be stronger the more democratic the regime since, as compared with autocracies or weaker democracies, citizens have a larger say in determining whether the politician stays in power.

Before I derive such results, I first provide simple and formal definitions of theft and of bribery. Denote public goods as g, government revenues as τ and political rents r, and

suppose the politician can convert revenues into public goods at rate $\theta \in \mathbb{R}_{\geq 0}$. Then θ is the marginal benefit of citizens from the revenues that are spent – a pure transfer, for instance, is captured by $\theta = 1$. When $\theta < 1$, the politician loses some of the value of the revenues, but out of 'incompetence', rather than malfeasance.[4] That is, corruption here is distinctly captured by rents r and not conflated with how well the politician manages the use of revenues for public benefit.

Consider then two ways by which a politician generates public goods and obtains the rents.

Definition 1. **Theft of public funds**. The politician in charge of public funds appropriates some of the funds, and the remainder is spent on public goods. Thus, $g = \theta(\tau - r)$.

This is the exact specification in Brollo, Nannicini, Perotti, and Tabellini (2013), in which politician rent-seeking is only through the theft of revenues. More generally, it is seen in political agency models, a la Barro (1973), Ferejohn (1986), and Persson and Tabellini (2000), in which the politician appropriates a portion of government revenues for herself and her patrons. Such a framework is widely adopted in formal models that explain a political resource curse – revenues from oil, natural resources and other windfall tend to be associated with higher corruption because they enable the politician who has discretion over those revenues to steal them, rather than spend them on public goods.[5]

Definition 2. **Bribery from public spending**. The politician in charge of public funds spends them on public goods in exchange for bribes. Thus, $g = \theta\tau - r$.

This definition is a simple, reduced-form, specification of bribery a la Grossman and Helpman (2001, p. 233) in which a firm or contractor supplying a public good offers a

---

[4]For example, revenues might be allocated toward government buildings that are vacant and unused. See https://abcnews.go.com/WN/taxpayer-owned-crumbling-vacant-government-buildings/story?id=10198415.

[5]See, e.g., Desierto (2018a,b), Brollo et al. (2013), Ahmed (2012), Abdih, Chami, Dagher, and Montiel (2012), and Robinson et al. (2006).

bribe to the political agent in charge of government revenues in exchange for a larger allocation of the revenues towards its contract. As demonstrated in Desierto (2021b,a), in equilibrium, the amount of bribes extracted by the politician depends on the (marginal) value of those public goods. To capture this and, at the same time, have a definition that is most analogous to Brollo et al. (2013), one can interpret $\theta\tau$ as the gross value, as it were, of the public goods – the larger it is, the higher the rents r that the politician can extract. Since the politician gets a kickback of r, the net value of the public goods is then $\theta\tau - r$.[6]

Thus, the politician who has discretion over the use of public funds can obtain rents by stealing some of the funds outright, or by spending them first and taking a cut from the value produced.[7] It is then straightforward to construct the following general specification, in which the politician can engage in both theft and bribery:

$$g = \theta(\tau - \alpha r) - (1 - \alpha)r, \tag{1}$$

where $\alpha \in (0, 1)$ is the fraction of total rents that is obtained in the form of theft. When α approaches 1, the rents are mostly from stolen revenues, and when α approaches 0, they are mostly from bribes. For now I take α to be exogenous, but I endogenize α to regime type in Section 4.3. Because some kinds of rents can be hidden more easily than others, institutions related to corruption enforcement can have varying effects depending on the type of rents.[8] One can then interpret α as institutions that determine whether it

---

[6]A simple example is when the politician allocates revenues towards a highway. Contractors bid to construct a highway, and the winning bid is the lowest cost because it will use substandard materials. Thus, if the winning bid is $\tau = 100$, the contractor spends that much to construct the highway. But on top of that, she pays the politician who awarded the contract a bribe of, say, $r = 10$. So the value of the highway must be above 100, i.e. $\theta\tau = \theta(100)$, with $\theta > 1$. Indeed, if the contractor uses substandard materials, she can use the remaining materials for other projects, thereby gaining extra profit. The value to the contractor of that highway is, then, more than 100, which is why she can pay the bribe. The net value of the highway is thus $g = \theta\tau - r = \theta(100) - 10$.

[7]An implication is that the rents from theft are obtained prior to the allocation of funds, while those from bribery occur after allocation. A corrupt politician can, for instance, steal some revenues from oil before spending the rest on public goods, or she can first spend revenues on developing oil fields and then appropriate some of the oil for herself or her cronies. In the first case, a political resource curse is generated through theft, in the latter case through bribery.

[8]Coate and Morris (1995), in particular, show that politicians can prefer to distribute rents through public

is easier to steal revenues than to extract bribes. For example, anti-bribery laws like the Foreign Corrupt Practices Act (FCPA) which prohibits US companies from paying bribes in foreign countries, or granting immunity from prosecution to whistleblowers in bribery cases could generate a α close to 1. Another example is the establishment of strong fiscal accounting and audit systems that can easily reveal any diversion of government funds. This makes theft more difficult, but not necessarily bribe-taking since proving the latter requires more evidence of quid pro quo than merely showing accounting irregularities. Such reforms can thus generate α close to zero. Thus:

Definition 3. α **captures the nature of anti-corruption institutions**. Specifically, $\alpha \to 0$ implies that the institutions are more focused against theft, while $\alpha \to 1$ implies that they more focused against bribery.

With these formal definitions, I then derive the relationship between the size of rents and politician competence in producing public goods, by modeling the political competition that the politician has to survive in order to stay in power.

3   Political Rents and Public Spending

Since the control of corrupt, high level, politicians rests on the threat of being replaced by their political opponents, one needs to specify such process of political turnover. A canonical framework that can be applied to both democratic and autocratic regimes is that of selectorate theory developed by Bueno de Mesquita et al. (1999, 2003) and Bueno De Mesquita and Smith (2010). There is a subset S of the population, of size S – the 'selectorate', that determines political turnover. Specifically, an incumbent leader tries to maintain the support of a coalition $W \subset S$ of supporters, of size W, drawn from S to remain in power. She does this by providing a combination of public goods or public policy which all members of S share, and private transfers that are given only to her

projects, which can be more disguised, than outright transfers. Applying the "Virginia School" perspective to our context would imply that bribe-rents are better hidden than outright theft of revenues.

coalition W. A challenger successfully replaces the incumbent if she is able to form her own coalition, also of size W, at least one of whom is a defector from the incumbent's coalition.[9] In majoritarian democracies, for instance, one expects the size of W to be at least half of that of S, and defecting from the incumbent leader is done by elections; the defectors are therefore the swing voters. In autocracies, W would be less than half of S, as only a few elite members of S are part of the leader's coalition. Defection of any member to a political challenger are not necessarily done by elections, but whatever the precise mechanism – selectorate theory abstracts from this, defection of the incumbent's coalition members erodes the incumbent's political power, enabling the challenger to replace the incumbent.

To entice the incumbent's coalition members to defect to her own coalition, the challenger also offers public goods/policy and transfers. The best that any challenger can offer is a mix that is optimal to her coalition. However, this offer is not fully credible, since the challenger can always change the composition of her coalition once she is in power. This, then, discourages members of the incumbent's coalition to defect to the challenger's. In equilibrium, the incumbent is able to take advantage of this 'loyalty norm', by giving an amount of transfers that is less than what a challenger would offer. The amount of public goods the incumbent provides, however, is the same as what a challenger would provide. This is because public goods are non-rivalrous and non-excludable. The provision of public goods therefore cannot prevent or entice defection since any selectorate member can benefit from them whether or not they remain in any leader's coalition.

Robinson et al. (2006), Smith (2008), Gehlbach (2013), Desierto (2018a), and Desierto and Koyama (2020) have used this selectorate framework to analyze the provision of public goods and policy in various contexts. In this paper, I adapt the selectorate framework to the context of grand corruption in which the leader uses some revenues on public goods and extract some as rents. To do so, I explicitly interpret the transfers as rents which

---

[9]Thus, the composition of the coalition changes depending on who the leader is. However, its size W is fixed — the disadvantage of using the selectorate framework is that it cannot explain how W becomes the stable coalition size.

the leader shares with her coalition. Thus, even the challenger can be corrupt – she can also offer transfers/rents to entice at least one member of the incumbent's coalition to defect. I then analyze what happens when the incumbent and challenger are not equally competent in generating public goods out of the revenues.

3.1 A Selectorate Model

Consider, then, a selectorate S of size normalized to one, whose members determine leader selection through the following game that is played at each time period $t = 0, 1, 2, ...\infty$.

1. The incumbent leader I, with competence θ^I in producing public goods, forms a coalition of selectors of size W from selectorate S who are highest in her affinity ordering. Political challenger C, with competence θ^C, nominates a coalition also of size W which includes at least one member of I's coalition. I and C each propose their policy – the level of public goods g and amount of transfer r. All members of S get g, but coalition members also get r when their leader is in power. That is, transfer r captures rents that the leader shares among her coalition.

2. Each selector in S chooses between I and C. I is deposed only if at least one selector in I's coalition chooses C.

3. The policy of the chosen leader is implemented.

I construct a stationary equilibrium in which I survives each period.

The best policy offer that *any* challenger C can make entails using the revenues to provide public goods and transfers at a mix that her coalition members would find optimal. As shown in Proposition 2, utility is increasing in the incumbent leader's competence. Thus, in equilibrium, the best challenger that can potentially replace the incumbent is one with the largest competence θ^C among all possible challengers.

Let $U = u(g, r)$ denote the utility that a member derives from public goods and transfers, with $u'(g), u'(r) > 0$.

The present value of the infinite stream of utilities that challenger C can thus provide,

and which I has to match so as to prevent her coalition members from defecting to C, is

$$V_C = u(g_C, r_C) + \delta\Big[\frac{W}{S}V_I + (1 - \frac{W}{S})V_o\Big], \tag{2}$$

where g_C and r_C denote C's offer of public goods and transfers, respectively, δ is the discount rate, V_I denotes the value of being inside the ruling coalition, that is, being inside the coalition of whoever is the incumbent, and V_o the value of being outside this coalition. With S selectorate members who each have the same probability of being included in the coalition of size W, the probability of being in the coalition and obtaining V_I is $\frac{W}{S}$.[10] Since outsiders get only public goods, then $V_o = \frac{u(g_I,0)}{1-\delta}$, with g_I denoting the public goods that are provided by whoever is the incumbent.

The level of public goods and transfers that maximize $U = u(g, r)$ depends on the government budget constraint which, in turn, depends on how rents are obtained. One possible budget constraint is $g + r = \theta\tau$, which implies $g = \theta\tau - r$. Recall that this scenario captures bribery — the leader spends revenues τ in order to generate social value $\theta\tau$, from which rents are obtained and, in this case, distributed among coalition members. A second possibility is that of theft in which $g = \theta(\tau - r)$ – that is, r is directly appropriated from revenues τ and shared to all coalition members, and the remaining revenues are spent on public goods. Combining these two gives $g = \theta(\tau - \alpha r) - (1 - \alpha)r$, where as in equation (1), α is the fraction of rents that comes from stolen revenues. Recall that most of the rents come from stolen revenues when α is close to one, and from bribes when α is close to zero.

Using this expression for public goods g, the value of being outside the ruling coalition is

$$V_o = \frac{u\big(\theta^I(\tau - \alpha r_I) - (1 - \alpha)r_I, 0\big)}{1 - \delta} \tag{3}$$

---

[10]This assumption is standard in selectorate theory. An exception is found in Desierto and Koyama (2020), where W is composed of subgroups, and each selectorate member has a different probability of being in W, depending on which subgroup she belongs to.

and the value of the challenger's offer is

$$V_C = u\big(\theta^C(\tau - \alpha r_C) - (1 - \alpha)r_C, r_C\big) + \delta\left[\frac{W}{S}V_I + (1 - \frac{W}{S})\frac{u(\theta^I(\tau - \alpha r_I) - (1 - \alpha)r_I, 0)}{1 - \delta}\right],$$

(4)

where r_I is the transfer given by the incumbent, and r_C by the challenger.

For the incumbent to remain in power, she must match the value of C's offer. That is, in equilibrium, $V_I = V_C$, which implies

$$V_I = \left[\frac{1}{1 - \frac{\delta W}{S}}\right]\left[u\big(\theta^C(\tau - \alpha r_C) - (1 - \alpha)r_C, r_C\big) + (1 - \frac{W}{S})\frac{u(\theta^I(\tau - \alpha r_I) - (1 - \alpha)r_I, 0)}{1 - \delta}\right].$$

(5)

Now the value of remaining in the incumbent's coalition is

$$V_I = \frac{u\big(\theta^I(\tau - \alpha r_I) - (1 - \alpha)r_I, r_I\big)}{1 - \delta}.$$

(6)

Plugging this into (5), rearranging, and expressing $\theta^I(\tau - \alpha r_I) - (1 - \alpha)r_I$ as function $g_I(\theta^I, \tau, \alpha, r_I)$ and, similarly, $\theta^C(\tau - \alpha r_C) - (1 - \alpha)r_C$ as $g_C(\theta^C, \tau, \alpha, r_C)$, one obtains:

$$F \equiv \frac{u(g_I(\theta^I, \tau, \alpha, r_I), r_I)}{1 - \delta} - \left[\frac{1}{1 - \frac{\delta W}{S}}\right]\left[u(g_C(\theta^C, \tau, \alpha, r_C), r_C) + (1 - \frac{W}{S})\frac{u(g_I(\theta^I, \tau, \alpha, r_I), 0)}{1 - \delta}\right] = 0$$

(7)

3.2   Equilibrium

From the model, one can characterize the extent of corruption in equilibrium, and how it relates to public goods spending. In particular, one can show how political competition, i.e. the presence of a challenger with competence θ^C who offers public goods g_C and can extract rents r_C, can effect the incumbent's own rent-seeking and public good provision.

First note that the threat of being replaced by a challenger does not necessarily prevent the incumbent leader from seeking rents. The incumbent can obtain rents because the challenger would also do the same. In fact, the incumbent's rents can be much larger than what a challenger would extract. This follows directly from Lemma 1 which shows that

14

$\frac{\partial r^I}{\partial r^C}$ can be greater than one:

Lemma 1 $\frac{\partial r^I}{\partial r^C} > 1$ *if* $au'(r_C) + bu'(g_C) > cu'(r_I) + du'(g_I)$ *(but ≤ 1 otherwise), where the weights a, b, c, d are defined as:*

$$a \equiv \frac{S}{S - \delta W} < \frac{1}{1 - \delta} \equiv c; \, b \equiv (\frac{S}{S - \delta W})[(1 - \theta^C)\alpha - 1]; \, d \equiv (\frac{W}{S - \delta W})[(1 - \theta^I)\alpha - 1].$$

(All proofs are in the Appendix.)

Lemma 1 shows that the difference between the rents extracted by an incumbent and those by the challenger can be so large such that $\frac{\partial r^I}{\partial r^C} > 1$. To examine the condition that generates this, one can simplify by letting the marginal utility from rents be equal to one. (This is actually standard in selectorate models, since rents are depicted as as monetary transfers.) Then $u'(r_C) = u'(r_I) = 1$, and the condition in Lemma 1 reduces to $bu'(g_C) - du'(g_I) > c - a$. Thus, $\frac{\partial r^I}{\partial r^C} > 1$ is more likely when W is small relative to S since, in this case, a would be large, b large, and d small, and therefore the condition is more easily met. Conversely, it is more likely for $\frac{\partial r^I}{\partial r^C} < 1$ when W is large relative to S. The following result is thus immediate.

Proposition 1 *The difference in the rents extracted by an incumbent and those by a challenger is smaller the more democratic the regime.*

Proposition 1 is consistent with results found in current selectorate models. In Gehlbach, for instance, $\frac{\partial r^I}{\partial r^C}$ approaches some lower bound $\epsilon = (1 - \delta) < 1$ as $\frac{W}{S}$ approaches 1. The difference is that in current models, while the value of $\frac{\partial r^I}{\partial r^C}$ decreases as W increases, it is always less than one, while Lemma 1 shows that this need not always be the case. In fact, the results in Gehlbach (2013), Smith (2008), and Desierto (2018a), are simply a special case of our model in which $u'(r^I) = u'(r^C) = 1$, $g_I = g_C$, $r_I < r_C$, and $\frac{\partial r_I}{\partial r_C} < 1$. This special case is actually obtained in our model whenever the incumbent is less competent than the challenger. That is:

Lemma 2 *If $g_I = g_C$ and $r_I < r_C$, then it must be that $\theta^I < \theta^C$.*

15

The intuition is straightforward. For a less competent incumbent to be able to provide the same level of public goods as a more competent challenger, the incumbent has to use more revenues and therefore has less rents to give to her coalition than what a challenger would give.

More generally, our model allows for the possibility that the incumbent and challenger offer different levels of public goods. When the incumbent and challenger have different levels of competence, they can provide different levels of public goods, and therefore, different rent amounts. As the condition $bu'(g_C) - du'(g_I) > c - a$ implies, when the incumbent provides less public goods than the challenger, then the former is likely able to extract much higher rents. That is, $bu'(g_C) - du'(g_I) > c - a$ and, thus, $\frac{\partial r^I}{\partial r^C} > 1$ is more likely when $u'(g_C) > u'(g_I)$ or, equivalently, when $g_C > g_I$. Thus, the following result is immediately generated by Lemmas 1 and 2.

Proposition 2 *An incumbent leader who would extract more (less) rents than a challenger would more likely provide less (more) public goods than a challenger.*

Thus far we have shown how a challenger leader with competence θ^C affects equilibrium rents and public good provision of the incumbent. The main focus of this paper, however, is to demonstrate whether a more competent incumbent is able to extract more rents (than a less competent one), irrespective of the threat from any challenger. Are there conditions under which citizens tolerate a corrupt incumbent for as long as s/he is competent, which do not rely on the strength of political competition that the incumbent faces? In other words, can citizens willingly trade-off corruption for competence?

The next section specifically addresses this issue. I find that the amount of rents the incumbent extracts in equilibrium may increase with the incumbent's competence, depending on two factors – the type of regime, W, and the nature of anti-corruption institutions, α.

16

4   Trading off Corruption for Competence

Suppose that the competence of the incumbent leader increases. Will corruption decrease or increase? A trade-off between corruption and competence exists when that leader is now able to extract higher rents than before. To see why, recall from equation 1 that higher θ^I is associated with larger g. The trade-off between corruption and competence thus implies a 'bargain' between the incumbent and citizens – a more competent incumbent can extract more rents in exchange for providing more public goods. Thus, for a trade-off to exist, it must be that the incumbent's rents rise with her level of competence (which implies more public goods). That is:

Definition 3. There exists a **trade-off** between corruption and competence whenever $\frac{\partial r^I}{\partial \theta^I} > 0$.

   Conversely, if $\frac{\partial r^I}{\partial \theta^I} \leq 0$, then there is no trade-off. Instead, when the incumbent becomes more competent, she provides more public goods without extracting more rents.

   In the following, we then derive conditions under which $\frac{\partial r^I}{\partial \theta^I} > 0$. We first point out that there is a key threshold value, $\bar{W}$, for the size of the coalition W, at which the marginal benefit from the public goods provided by the incumbent, $u'(g_I)$, is also at some threshold value $\bar{u}'(g_I) \equiv \left(\frac{S - \delta W}{W - \delta W} \right) u'(r_I)$. There is also a threshold value for the incumbent's competence, $\bar{\theta}^I \equiv 1 - \frac{1}{\alpha} \left(1 - \frac{\bar{u}'(g_I)}{u'(g_I)} \right)$, that is increasing in α. The following result can then be established.

Lemma 3 *Define thresholds $\bar{W} \equiv W : \bar{u}'(g_I) = u'(g_I)$, and $\bar{\theta}^I \equiv 1 - \frac{1}{\alpha} \left(1 - \frac{\bar{u}'(g_I)}{u'(g_I)} \right)$. Then:*

1. *$\frac{\partial r_I}{\partial \theta^I} > 0$ if $W > \bar{W}$ and $\theta^I > \bar{\theta}^I$.*

2. *$\frac{\partial r_I}{\partial \theta^I} < 0$ if $W > \bar{W}$ and $\theta^I < \bar{\theta}^I$, or if $W \leq \bar{W}$.*

   The relevant conditions are whether thresholds W and θ^I are met. For as long as they are met, then the trade off exists, irrespective of how competent the challenger is. This is not to say that the challenger's competence is completely irrelevant, as it affects

17

r_I (from Lemma 1), which then affects the exact values of the thresholds $\bar{W}$ and θ^I. However, $\bar{W}$ and $\bar{\theta}^I$ already incorporate the challenger's competence, and so given the thresholds, θ^C has no independent effect on the likelihood that the trade-off exists. To put it in another way, note that result 1 of Lemma 3 implies that it is always the case that a more democratic regime (higher W) with a more competent incumbent (higher θ^I) is always more likely to generate the trade-off than a less democratic one that is led by a less competent incumbent. This result holds whether challengers are more or less competent.

Note also that since $\bar{\theta}^I$ is increasing in α, the condition $\theta^I > \bar{\theta}^I$ is more likely met when α is close to zero. The following result is thus immediate.

Proposition 3 *The trade-off between corruption and competence is more likely to exist in more democratic regimes whose institutions are more focused on deterring theft rather than bribery.*

Figure 1 depicts this by showing that $\frac{\partial r_I}{\partial \theta^I} > 0$ when the regime is sufficiently democratic, i.e. $W \geq \bar{W}$, given a value of $\alpha = 0.1$ that is close to zero. The computation is done in Wolfram Mathematica 13.1 using $\frac{\partial r_I}{\partial \theta^I} = -\frac{\partial F}{\partial \theta^I} / \frac{\partial F}{\partial r_I}$, equation (8) for $\frac{\partial F}{\partial r^I}$, equation (10) for $-\frac{\partial F}{\partial \theta^I}$, equation (1) for g_I, and using functional forms $u'(r_I) = 1$ and $u'(g_I) = \frac{10}{\sqrt{g_I}}$. This latter is chosen so that $u'(r_I) < u'(g_I)$, a condition implied by Proposition 3, and made explicit in Lemma 4. Specifically, given $u'(r_I)$, I let $u(g_I) = a\sqrt{g_I}$, such that $u'(g_I) = \frac{a}{2\sqrt{g_I}}$, and let $a = 20$. This ensures that for the value of g_I implied by equation (1), $u'(g_I) = \frac{a}{2\sqrt{g_I}} > 1 = u'(r_I)$, or $\frac{a}{2} = \frac{20}{2} = 10 > \sqrt{g_I}$. I have also assumed the following values: $\alpha = 0.1$, $\tau = 10$, $\theta^I = 2$, $r = 8$, $\delta = 0.5$, $S = 100$, and $W \in (0, 100)$.

With low W (less democratic regime), $\frac{\partial r_I}{\partial \theta^I}$ is less than zero, and thus, there is no trade-off between corruption and competence – a competent leader is also likely to extract rents than a less competent one. However, once the regime becomes sufficiently democratic, i.e. $W > \bar{W}$, $\frac{\partial r_I}{\partial \theta^I}$ becomes positive. A more competent leader is then able to extract more rents than a less competent one. Although this happens at a decreasing rate, what is important is that $\frac{\partial r_I}{\partial \theta^I}$ stays above zero until maximum W, which is equal to S.

18

Figure 1: Trade-off Emerges in Democratic Regimes with Strong Anti-Theft Institutions
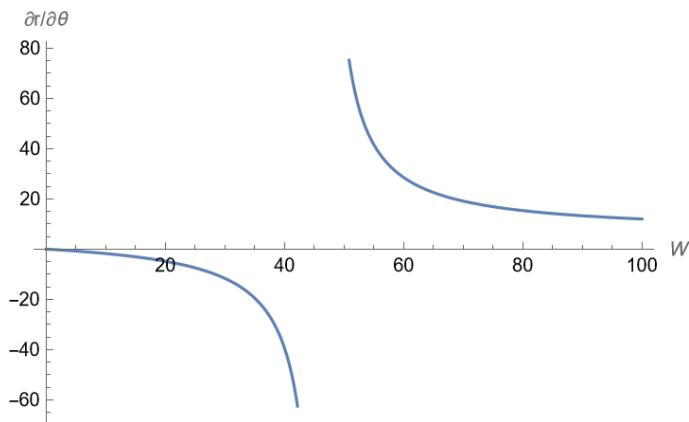
This figure depicts that a trade-off emerges, $\frac{\partial r_I}{\partial \theta^I} > 0$, when the regime is sufficiently democratic, i.e. $W \geq \bar{W}$, given a value of $\alpha = 0.1$ that is close to zero.

Note also that the graph was generated by assuming a value of α that is close to zero. For a trade-off between corruption and competence to exist, not only should the regime be sufficiently democratic, but its institutions also have to be more effective in deterring theft relative to bribery. In fact, by Lemma 3, if α is instead close to one (which makes $\theta^I < \bar{\theta}^I$ more likely), then it does not matter whether the regime is democratic – there will be no trade-off for any value of W. Figure 2 depicts this.

Why is there no trade-off for less democratic or autocratic regimes? Lemma 3 implies that if the threshold $\bar{W}$ is at least as large as S, then W will always be less than or equal to $\bar{W}$, which means that there can never be a trade-off. It can be shown that this is the case when the marginal social value of public goods is no larger than the incumbent's marginal utility from rents. That is:

Lemma 4 If $u'(g_I) \leq u'(r_I)$, then $\frac{\partial r_I}{\partial \theta^I} < 0$.

The opposite holds if $u'(g_I) > u'(r_I)$. The result thus implies that if citizens get a sufficiently large marginal value from public goods, i.e. higher than the marginal utility from rents, then they let the incumbent extract those rents – the incumbent remains in

19

Figure 2: No Trade-off with Weak Anti-Theft Institutions
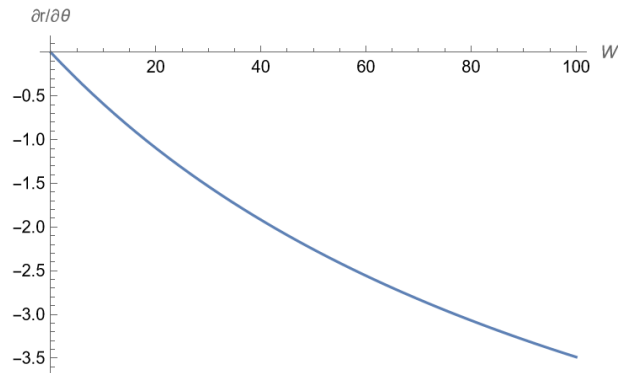
This figure depicts that no trade-off is possible, $\frac{\partial r_I}{\partial \theta} < 0$, even as the regime becomes more democratic. This is because $\alpha = 0.9$ is close to one, such that institutions focus more on bribery, rather than theft. That is, the figure is generated by doing the same computation as in Figure 1, but with $\alpha = 0.9$.

power. In turn, Lemma 3 implies that this does not hold when $W < \bar{W}$. That is, in less democratic and autocratic regimes, the marginal social value of the public goods is lower than in democratic regimes. Thus, when an autocratic leader becomes more competent, she provides more public goods but with low marginal social value. She is thus unable to extract more bribe-rents from public-good contracts of low value. She also obtains less rents from theft since she would have had to spend more revenues to produce more public goods. Thus, her rents actually decrease.

In contrast, when a democratic leader becomes more competent, she provides more public goods that have large marginal social value. Provided that α is close to zero such that she is constrained from stealing revenues and therefore spends most of it on public goods, the additional public goods generate such high social value that she is able to earn more bribes in exchange for providing such public goods. Thus, the rents that a more competent (democratic) leader obtains are larger than what a less competent one can get.

The model thus formally demonstrates the following. In democratic regimes $(W > \bar{W})$ in which the leader is sufficiently constrained not to steal revenues because institutions enforce against theft $(\alpha \to 0)$, she spends the revenues on public goods that generate

20

large social value. An implicit bargain can thus be made between a competent incumbent who can provide more of these large-value public goods and the citizens who 'allow' the incumbent to extract some of the value as rents. By this mechanism, a trade-off between corruption and competence exists.

4.1 Institutions Endogenous to Regime Type?

In the model, the two key determinants of the trade-off are regime-type (W) and the institutions that affect the relative focus on theft vs. bribery (α). Over the long-run, however, both these variables can change. Democratic regimes, for instance, may be more likely to undertake fiscal accounting reforms and encourage free press, both of which can make it difficult for public officials to siphon off government funds. What happens when institutional change is endogenous to regime type?

I thus extend the model by letting α be a function of W. The results are then modified depending on the relationship between W and α.

To demonstrate, let $\alpha \equiv \alpha(W)$ be a twice-differentiable function, where $\alpha''(W) < 0$ and either: (a) $\alpha'(W) < 0$; or (b) $\alpha'(W) > 0$. That is, as the regime becomes more democratic, either (a) institutions become relatively more focused on deterring theft or (b) relatively more focused on deterring bribery. This gives rise to the following lemma:[11]

Lemma 5 *If $\alpha'(W) < 0$, then $\frac{\partial r_I}{\partial \theta^I} > 0$ becomes more likely as W increases. If $\alpha'(W) > 0$, then $\frac{\partial r_I}{\partial \theta^I} < 0$ becomes more likely as W increases.*

The following implication is immediate.

Proposition 4 *If democratic regimes tend to develop institutions that deter theft (bribery), then a trade-off between corruption and competence is more (less) likely to occur as a regime becomes more democratic.*

---

[11]Of course, regime type and institutions may be co-evolving in many other ways. In this extension, I assume in effect that regime type is slower moving and determines the institutional bias toward theft or bribery. To the extent that the same democratic regime can adopt varying anti-corruption strategies, such assumption may be justifiable. Brazil, for instance, had a new democratic Constitution ratified in 1989, but the random auditing of municipal government revenues – which appears to have decreased the embezzlement or theft of funds (see Avis et al. (2018), and Ferraz and Finan (2011)), only begun in 2003.

The intuition is immediately gleaned from Proposition 3, which requires both W to be sufficiently high and α sufficiently low for a tradeoff to exist. Both these conditions are simultaneously obtained when the move towards a more democratic regime also means that the leader is also less able to extract rents from theft. As the regime becomes more democratic, the leader becomes more constrained to spend most of the revenues on public goods which, in turn, implicitly induces citizens, who benefit from the public goods, to share some of this benefit to the leader by allowing her to extract some bribe-rents.

Proposition 4 suggests that whenever there is an observed trade-off between corruption and competence in a democratic regime, its anti-corruption institutions should also be effective at deterring theft. Only a systematic empirical test can verify whether this pattern holds. In the case of Brazil, however, studies have shown that audits have decreased corruption (Avis et al. (2018), and Ferraz and Finan (2011). The dominant type of corruption reported in such audits appears to be the diversion of federal funds and embezzlement, rather than explicit bribe-taking. Ferraz et al. (2012), for instance, reveal large leakages from federal funds allocated toward educational spending in municipalities.

In other democracies when the trade-off seems less likely to exist, institutions appear more focused on enforcing against bribery. The US Foreign Corrupt Practices Act (FCPA) has been successful on enforcing against bribery – since the 1970s, over 500 bribery cases have been filed and over \$15 billion dollars of fines have been imposed against companies and individuals found to have been guilty of paying bribes to foreign public officials (Pavlik and Desierto, 2022). The OECD Anti-Bribery Convention, of which 37 out of the 44 signatories are OECD countries, has also successfully uncovered and prosecuted numerous bribery cases (Brewster, 2017).[12]

Of course, the pattern is merely suggestive, since income levels also differ between Brazil and the OECD. But the fact that the pattern can be formally derived should warrant some empirical investigation on whether differences in anti-theft and anti-bribery

---

[12]It is telling that in spite of the fact that Brazil is a signatory to the convention, it took a long time to uncover the full extent of the Petrobras bribery scandal and to prosecute and convict the guilty parties.

corruption policies and institutions are indeed related to regime type.

4.2 Discussion

The model can potentially explain variation in the kind of grand corruption that a politician engages in. When anti-corruption institutions focus on theft rather than bribery, the politician more easily extracts bribe-rents by spending government revenues on public goods. In this case, citizens trade off the politician's bribe rent-seeking for her competence in the provision of public goods. This trade-off is more likely to exist in democratic regimes, and even more so if such regimes also tend to develop anti-theft institutions.

There is, of course, no existing dataset on corruption that distinguishes between theft and bribery. However, important anecdotal evidence may provide initial support to the results presented here. Specifically, the results can explain why the largest corruption scandal in Brazil (Petrobras) is that of bribery in exchange for the construction of public works, while in Malaysia (1MDB) it is from the theft or direct appropriation of the 1MDB development fund. As a relatively stronger democratic regime, Brazilian voters exert more influence in leader selection and can therefore demand a trade-off – that is, some rent-seeking may be tolerated if it is matched by a commensurate value of public goods. In contrast, electoral accountability and, hence, democracy is weaker in Malaysia, which allows the incumbent to expect to siphon off some public funds without providing public goods to the electorate.

In addition, findings on the political resource curse are not inconsistent with our theoretical predictions, in that the curse of higher corruption appears to be more ubiquitous in weaker democracies or autocracies. (For a survey, see Ross (2015).) Existing empirical papers do not specify the type of corruption that occurs. However, as Desierto (2018b) shows, formal models of the political resource curse on which empirical results are presumably grounded depict the corruption as the theft of revenues from oil and natural resources, rather than bribe-taking. The political resource curse literature thus implies that the trade-off may be weaker in autocracies since rent-seeking is such regimes may be

23

associated with more theft, rather than bribe-taking.

The existence of a trade-off has important economic and political implications.

The trade-off implies that most of the rent-seeking is through bribery; but in order to receive the bribe-rents, the politician has to provide public goods. In contrast, without the trade-off, the corrupt politician simply siphons off government revenues. Thus, it is possible that social welfare is larger when there is a trade-off than when there is none. Specifically, when $\theta^I > 1$, every dollar of revenue produces more than a dollar's worth of public goods. In this case, more public goods will be produced when the politician takes all its rents from bribes, than from theft. To see this, note from equation (1) that when $\alpha = 0$, then the amount of public goods is $g_{\alpha=0} = \theta^I \tau - r$, and when $\alpha = 1$, the amount is $g_{\alpha=1} = \theta^I(\tau - r)$. It is thus clear that $g_{\alpha=0}$ is greater than $g_{\alpha=1}$ whenever $\theta^I > 1$.

From a purely political perspective, however, the trade-off implies that political competition cannot deter corruption. Even if the electoral process is fair, it cannot effectively screen out corrupt politicians. Electing a politician that is competent at providing public goods comes at the expense of higher corruption because the politician also takes bribes from public spending contracts. This also implies that electoral reforms would not necessarily decrease corruption. Increasing transparency and providing voters with information about corrupt candidates would not deter them from electing such candidates, if these candidates provide a lot of public goods.

5   Conclusion

When do citizens trade off corruption for competence? I propose a model in which a corrupt politician earns rents by stealing government revenues or spending the revenues on public goods from which she extracts bribes. Members of the politician's coalition share in the rents, but ordinary citizens benefit only from the public goods. I find that the more democratic the regime, and when institutions constrain the politician not to steal, rather than not to take bribes, the more likely it is that a politician will be able

to earn more rents at the same time as she delivers more public goods. This trade-off between corruption and competence can explain why political malfeasance is not always punished by citizens, even in democratic regimes.

References

Abdih, Y., R. Chami, J. Dagher, and P. Montiel (2012). Remittances and institutions: Are remittances a curse? *World Development 40*(4), 657–666.

Acemoglu, D., J. A. Robinson, and R. Torvik (2013, 02). Why Do Voters Dismantle Checks and Balances? *The Review of Economic Studies 80*(3), 845–875.

Ahmed, F. Z. (2012). The perils of unearned foreign income: Aid, remittances, and government survival. *American Political Science Review 106*(1), 146–165.

Aidt, T. S. (2003, 11). Economic Analysis of Corruption: A Survey. *The Economic Journal 113*(491), F632–F652.

Arias, E., H. Larreguy, J. Marshall, and P. Querubín (2022, 05). Priors Rule: When Do Malfeasance Revelations Help Or Hurt Incumbent Parties? *Journal of the European Economic Association 20*(4), 1433–1477.

Ashworth, S. (2012). Electoral accountability: Recent theoretical and empirical work. *Annual Review of Political Science 15*(1), 183–201.

Avis, E., C. Ferraz, and F. Finan (2018). Do government audits reduce corruption? estimating the impacts of exposing corrupt politicians. *Journal of Political Economy 126*(5), 1912–1964.

Banerjee, A., S. Mullainathan, and R. Hanna (2012, April). Corruption. NBER Working Papers 17968, National Bureau of Economic Research, Inc.

Bardhan, P. (1997). Corruption and development: A review of issues. *Journal of Economic Literature 35*(3), 1320–1346.

Barro, R. J. (1973). The control of politicians: An economic model. *Public Choice 14*, 19–42.

Bates, R. H. and D.-H. Donald Lien (1985). A Note on Taxation, Development, and Representative Government. *Politics Society 14*(1), 53–70.

Becker, G. S. and G. J. Stigler (1974). Law enforcement, malfeasance, and compensation of enforcers. *The Journal of Legal Studies 3*(1), 1–18.

Bernheim, B. D. and M. D. Whinston (1986a, July). Common Agency. *Econometrica 54*(4), 923–942.

Bernheim, B. D. and M. D. Whinston (1986b). Menu Auctions, Resource Allocation, and Economic Influence. *The Quarterly Journal of Economics 101*(1), 1–31.

Boas, T. C., F. D. Hidalgo, and M. A. Melo (2019). Norms versus Action: Why Voters Fail to Sanction Malfeasance in Brazil. *American Journal of Political Science 63*(2), 385–400.

Brewster, R. (2017). Enforcing the FCPA: international resonance and domestic strategy. *Virginia Law Review 103*, 1611.

Brollo, F., T. Nannicini, R. Perotti, and G. Tabellini (2013, August). The political resource curse. *American Economic Review 103*(5), 1759–96.

Bueno de Mesquita, B., J. D. Morrow, R. M. Siverson, and A. Smith (1999). An institutional explanation of the democratic peace. *American Political Science Review 93*(4), 791–807.

Bueno de Mesquita, B., J. D. Morrow, R. M. Siverson, and A. Smith (2003). *The Logic of Political Survival.* Cambridge, MA: MIT Press.

Bueno De Mesquita, B. and A. Smith (2010). Leader survival, revolutions, and the nature of government finance. *American Journal of Political Science 54*(4), 936–950.

Chang, E. C. C. (2020). Corruption predictability and corruption voting in Asian democracies. *Public Choice 184*(3), 307–326.

Chong, A., A. L. De La O, D. Karlan, and L. Wantchekon (2015). Does corruption information inspire the fight or quash the hope? a field experiment in mexico on voter turnout, choice, and party identification. *The Journal of Politics 77*(1), 55–71.

Desierto, D. (2018a, August). Formal models of the political resource curse. *Economics of Governance 19*(3), 225–259.

Desierto, D. (2021a, January). Public goods, corruption, and the political resource curse. Working paper.

Desierto, D. and M. Koyama (2020). Health vs. economy: Politically optimal pandemic

policy. *Journal of Political Institutions and Political Economy 1*(4), 645–669.

Desierto, D. A. (2018b). What resource curse? the null effect of remittances on public good provision. *Journal of Theoretical Politics 30*(4), 431–450.

Desierto, D. A. (2021b, August). Grand Corruption by Theft and Bribery. Working Paper.

Dixit, A., G. M. Grossman, and E. Helpman (1997, August). Common Agency and Coordination: General Theory and Application to Government Policy Making. *Journal of Political Economy 105*(4), 752–769.

Dixit, A. K. (2010). Democracy, autocracy and bureaucracy. *Journal of Globalization and Development 1*(1).

Duggan, J. and C. Martinelli (2017, September). The political economy of dynamic elections: Accountability, commitment, and responsiveness. *Journal of Economic Literature 55*(3), 916–84.

Ferejohn, J. (1986). Incumbent performance and electoral control. *Public Choice 50*(1/3), 5–25.

Ferraz, C. and F. Finan (2011, June). Electoral accountability and corruption: Evidence from the audits of local governments. *American Economic Review 101*(4), 1274–1311.

Ferraz, C., F. Finan, and D. Moreira (2012). Corrupting learning. *Journal of Public Economics 96*(9-10), 712–726.

Fisman, R. and R. Gatti (2002). Decentralization and corruption: evidence across countries. *Journal of Public Economics 83*(3), 325–345.

Fisman, R. and M. A. Golden (2017). *Corruption: What Everyone Needs to Know.* Oxford: Oxford University Press.

Foresta, A. (2020). The rise of populist parties in the aftermath of a massive corruption scandal. *Public Choice 184*(3), 289–306.

Gehlbach, S. (2013). *Formal Models of Domestic Politics.* Cambridge: Cambridge University Press.

Grossman, G. M. and E. Helpman (1994, September). Protection for Sale. *American*

Economic Review 84(4), 833–850.

Grossman, G. M. and E. Helpman (2001). *Special Interest Politics*. MIT Press Books. The MIT Press.

Hollyer, J. R. and L. Wantchekon (2015). Corruption and ideology in autocracies. *The Journal of Law, Economics, and Organization 31*(3), 499–533.

Holmström, B. (1979). Moral hazard and observability. *The Bell Journal of Economics 10*(1), 74–91.

Holmstrom, B. (1982). Moral hazard in teams. *The Bell Journal of Economics 13*(2), 324–340.

Holmström, B. (1999, 01). Managerial Incentive Problems: A Dynamic Perspective. *The Review of Economic Studies 66*(1), 169–182.

Martinelli, C. (2022). Accountability and grand corruption. *American Economic Journal: Microeconomics Forthcoming*.

North, D. C. and B. Weingast (1989). Constitutions and commitment: the evolution of institutions governing public choice in seventeenth century England. *Journal of Economic History 49*, 803–32.

Pavlik, J. B. and D. Desierto (2022, March). Bride-switching. Working paper.

Persson, T. and G. Tabellini (2000). *Political Economics: Explaining Economic Policy*. Cambridge: MIT Press.

Robinson, J. A., R. Torvik, and T. Verdier (2006). Political foundations of the resource curse. *Journal of Development Economics 79*(2), 447–468.

Rosas, G. and L. Manzetti (2015). Reassessing the trade-off hypothesis: How misery drives the corruption effect on presidential approval. *Electoral Studies 39*, 26–38.

Rose-Ackerman, S. (1978). *Corruption: a study in political economy*. New York: Academic Press.

Rose-Ackerman, S. (1999). *Corruption and Government: Causes, Consequences, and Reform*. Cambridge: Cambridge University Press.

Rose-Ackerman, S. (2007). *International handbook on the economics of corruption*, Vol-

ume 1. Cheltenham, U.K.: Edward Elgar Publishing.

Rose-Ackerman, S. (2011a). *International handbook on the economics of corruption*, Volume 2. Cheltenham, U.K.: Edward Elgar Publishing.

Rose-Ackerman, S. (2011b). *internationl Handbook on the Economics of Corruption*, Volume I. Cheltenham, UK: Edward Elgar.

Rose-Ackerman, S. and B. J. Palifka (2016). *Corruption and government: Causes, consequences, and reform.* Cambridge: Cambridge University Press.

Ross, M. L. (2015). What have we learned about the resource curse? *Annual Review of Political Science 18*(1), 239–259.

Shleifer, A. and R. W. Vishny (1993, 08). Corruption. *The Quarterly Journal of Economics 108*(3), 599–617.

Smith, A. (2008). The perils of unearned income. *The Journal of Politics 70*(3), 780–793.

Tilly, C. (1992). *Coercion, Capital, and European States, AD 990-1990.* Oxford: Blackwell.

Wiens, D., P. Poast, and W. R. Clark (2014, 2022/11/15). The political resource curse: An empirical re-evaluation. *Political Research Quarterly 67*(4), 783–794.

Winters, M. S. and R. Weitz-Shapiro (2013). Lacking information or condoning corruption: When do voters support corrupt politicians? *Comparative Politics 45*(4), 418–436.

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

Appendix

Since $\frac{\partial F}{\partial r_I} \neq 0$ (see below), one can apply the implicit function theorem to get: $\frac{\partial r_I}{\partial r_C} = -\frac{\partial F}{\partial r_C} / \frac{\partial F}{\partial r_I}$ and $\frac{\partial r_I}{\partial \theta^I} = -\frac{\partial F}{\partial \theta^I} / \frac{\partial F}{\partial r_I}$.

Note, then, that $\frac{\partial F}{\partial r_I} = (\frac{1}{1-\delta})[u'(g_I)\frac{\partial g_I}{\partial r_I} + u'(r_I)] - [(\frac{1}{1-\frac{\delta W}{S}})(\frac{1-\frac{W}{S}}{1-\delta})][u'(g_I)\frac{\partial g_I}{\partial r_I}]$, where $u'(g_I)$ is the marginal utility of selector from public good g_I provided by the incumbent, while $u'(r_I)$ is the marginal utility of a ruling coalition member from rents. Since $\frac{\partial g}{\partial r_I} = $

$(1 - \theta^I)\alpha - 1$, then one can re-arrange and simplify to get

$$\frac{\partial F}{\partial r_I} = (\frac{1}{1-\delta})u'(r_I) + (\frac{W}{S-\delta W})\Big[u'(g_I)[(1 - \theta^I)\alpha - 1]\Big] \tag{8}$$

Similarly:

$$-\frac{\partial F}{\partial r^C} = (\frac{S}{S-\delta W})\Big[u'(g_C)[(1 - \theta^C)\alpha - 1] + u'(r_C)\Big] \tag{9}$$

Now, since $\frac{\partial g_I}{\partial \theta^I} = \tau - \alpha r_I$, then $-\frac{\partial F}{\partial \theta^I} = -(\frac{W}{S-\delta W})[u'(g_I)\frac{\partial g_I}{\partial \theta^I}]$ can be written as

$$-\frac{\partial F}{\partial \theta^I} = -(\frac{W}{S-\delta W})[u'(g_I)(\tau - \alpha r_I)]. \tag{10}$$

Proof of Lemma 1

From (8) and (9), $\frac{\partial r^I}{\partial r^C} > 1$ if $(\frac{S}{S-\delta W})\Big[u'(g_C)[(1 - \theta^C)\alpha - 1] + u'(r_C)\Big] > (\frac{1}{1-\delta})u'(r_I) + (\frac{W}{S-\delta W})\Big[u'(g_I)[(1-\theta^I)\alpha - 1]\Big]$ or, rearranging, $au'(r_C) + bu'(g_C) > cu'(r_I) + du'(g_I)$, where $a \equiv \frac{S}{S-\delta W}$, $c \equiv \frac{1}{1-\delta}$, $b \equiv (\frac{S}{S-\delta W})[(1 - \theta^C)\alpha - 1]$, and $d \equiv (\frac{W}{S-\delta W})[(1 - \theta^I)\alpha - 1]$.

Proof of Lemma 2

Suppose that $\theta^I = \theta^C$. To get $g_I = g_C$ in the model, it must be that $\theta(\tau - \alpha r_I) - (1-\alpha)r_I = \theta(\tau - \alpha r_C) - (1 - \alpha)r_C$, which implies $r_I = r_C$. Thus, for $g_I = g_C$ and $r_I < r_C$ to both hold, it must be that $\theta(\tau - \alpha r_I) - (1 - \alpha)r_I < \theta(\tau - \alpha r_C) - (1 - \alpha)r_C$ or, simplifying, that $\theta^I < \theta^C$.

Proof of Lemma 3

By (10), $-\frac{\partial F}{\partial \theta^I} < 0$. Thus, $\frac{\partial r_I}{\partial \theta^I} > 0$ if $\frac{\partial F}{\partial r_I} < 0$. Now, by (8), $\frac{\partial F}{\partial r_I} < 0$ if $(\frac{1}{1-\delta})u'(r_I) < -(\frac{W}{S-\delta W})\Big[u'(g_I)[(1-\theta^I)\alpha - 1]\Big]$. Re-arranging and simplifying this condition gives $1 - \frac{1}{\alpha} + \frac{1}{\alpha}(\frac{S-\delta W}{W-\delta W})\frac{u'(r_I)}{u'(g_I)} < \theta^I$, which can be written as $\bar{\theta}^I \equiv 1 - \frac{1}{\alpha}\left(1 - \frac{\bar{u}'(g_I)}{u'(g_I)}\right) < \theta^I$. Thus, $\frac{\partial r_I}{\partial \theta^I} > 0$ if $\theta^I > \bar{\theta}^I$. Now, the latter condition cannot hold when $\bar{\theta}^I \geq 1$ which, in turn, is always the case when $\frac{\bar{u}'(g_I)}{u'(g_I)} \geq 1$, or when $W \leq \bar{W}$ (since $\frac{\partial \bar{u}'(g_I)}{\partial W} = \frac{-(W-\delta W)(\delta u'(r_I)) - (S-\delta W)u'(r_I)(1-\delta)}{(1-\delta)^2} <$

31

0). If $W > \bar{W}$, then $\frac{\bar{u}'(g_I)}{u'(g_I)} < 1$, in which case $\bar{\theta}^I$ may be greater than or less than θ^I. Thus, if $W > \bar{W}$, $\frac{\partial r_I}{\partial \theta^I} > 0$ if $\theta^I > \bar{\theta}^I$, and $\frac{\partial r_I}{\partial \theta^I} < 0$ if $\theta^I < \bar{\theta}^I$. (From equation (10) in the Appendix, $\theta^I \neq \bar{\theta}^I$.) If $W \leq \bar{W}$, then $\frac{\partial r_I}{\partial \theta^I} < 0$.

Proof of Lemma 4

Recall that $\bar{W}$ is such that $\bar{u}'(g_I) = u'(g_I)$. Thus, one can set $\frac{S - \delta \bar{W}}{\bar{W} - \delta \bar{W}} u'(r_I) = u'(g_I)$, or $\bar{W} = S \left[\frac{1}{\frac{u'(g_I)}{u'(r_I)} - \frac{u'(g_I)}{u'(r_I)} \delta + \delta} \right]$. Now, $\bar{W} \geq S$ whenever $\frac{u'(g_I)}{u'(r_I)} - \frac{u'(g_I)}{u'(r_I)} \delta + \delta \leq 1$ or, simplifying, $u'(g_I) \leq u'(r_I)$. Thus, whenever the latter is true, $\bar{W} \geq S$, which means $W \leq \bar{W}$ (since W can be no larger than S). By Lemma 3 (item 2), $\frac{\partial r_I}{\partial \theta^I} < 0$.

Proof of Proposition 3

By (1) of Lemma 3, $\frac{\partial r_I}{\partial \theta^I} > 0$ requires (a) $W > \bar{W}$ and (b) $\theta^I > \bar{\theta}^I$. Now (a) captures more democratic regimes in which W is large. Condition (b) is more likely satisfied when α is close to zero, and recall that α close to zero is when institutions are more effective in deterring theft rather than bribery, which enables the incumbent to extract rents mostly by bribe-taking.

Proof of Lemma 5

Recall that $\frac{\partial r_I}{\partial \theta^I} = -\frac{\partial F}{\partial \theta^I} \Big/ \frac{\partial F}{\partial r_I}$, where $-\frac{\partial F}{\partial \theta^I} < 0$, and $\frac{\partial F}{\partial r_I} > 0$ if $W < \bar{W}$ or, when $W \geq \bar{W}$, if $\theta^I < \bar{\theta}^I$. Otherwise, when $\theta^I > \bar{\theta}^I$, then $\frac{\partial F}{\partial r_I} < 0$. Now, $\bar{\theta}^I$ is decreasing in W if $\alpha'(W) < 0$, which implies $\theta^I < \bar{\theta}^I$ becomes less likely, and $\theta^I > \bar{\theta}^I$ more likely as W increases. Thus, if $\alpha'(W) < 0$, $\frac{\partial F}{\partial r_I} < 0$ and, hence, $\frac{\partial r_I}{\partial \theta^I} > 0$ become more likely as W increases.

In contrast, if $\alpha'(W) > 0$, then the threshold $\bar{\theta}^I$ is increasing in W, making $\theta^I < \bar{\theta}^I$ more likely and $\theta^I > \bar{\theta}^I$ less likely as W increases. Thus, initially, i.e. $W < \bar{W}$, then $\frac{\partial r_I}{\partial \theta^I} < 0$, but as W increases beyond $\bar{W}$, it may still be the case that $\frac{\partial r_I}{\partial \theta^I} < 0$ because $\theta^I < \bar{\theta}^I$ becomes more likely as W increases. Thus, if $\alpha'(W) > 0$, $\frac{\partial r_I}{\partial \theta^I} < 0$ becomes more likely as W increases.