Corruption for Competence

Desiree A. Desierto*

May 11, 2020

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 bargain with citizens in order to stay in power. Second, the politician obtains rents largely by taking bribes in exchange for spending public funds, rather than by stealing the funds outright – in the former, citizens benefit from the public spending, while in the latter they get nothing. Under these two conditions, the bargaining power of both citizens and politicians are strong such that competence sustains corruption, and vice-versa.

1 Introduction

Consider a politician who wants to maximize rents, but extracting rents 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 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

*W. Allen Wallis Institute of Political Economy, University of Rochester; ddesiert@ur.rochester.edu

[1] Persson and Tabellini (2000) 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.

they themselves could share in the rents. Existing models, from special-interest politics (Grossman and Helpman 2001) to selectorate theory (Bueno de Mesquita et al. 2003), show precisely how government revenues can be targeted toward political patrons. The other reason is that the politician can spend the revenues on public goods in exchange for bribes/kickbacks, in which case even ordinary citizens can benefit. They could then be willing to tolerate the rent-seeking as long as the politician provides public goods. This would help explain why providing voters information about malfeasant candidates does not necessarily improve electoral accountability.[2]

While empirical findings suggest that citizens trade off corruption for competence (e.g. Rosas and Manzetti (2015), Choi and Woo (2013), Zechmeister and Zizumbo-Colunga (2013), Winters and Weitz-Shapiro (2013)), the precise mechanism by which this occurs is still unclear. I thus propose a model that formally establishes conditions that can generate the trade-off.

2 Theft and Bribery

To fix ideas, 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 θ. Consider two ways by which a politician generates public goods and obtains 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, $g = \theta(\tau - r)$.[3]

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

In other words, 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

[2]See, for instance, recent field experimental evidence from Boas, Hidalgo and Melo (2018) and Chong et al. (2015). Arias et al. (2019) provide a model in which voters update their beliefs about a candidate, and formally show that a candidate need not be sanctioned in elections after information of her malfeasance is revealed if voters already believe the candidate to be malfeasant in the first place.

[3]This is the exact specification in Brollo et al. (2013), in which politician rent-seeking is only through the theft of revenues.

a cut from the value produced.[4] The following general specification admits a mixture of theft and bribery, and obtains either as pure cases:

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

where $\alpha \in [0, 1]$ is the fraction of total rents that is obtained in the form of theft, with $\alpha = 1$ when all rents are stolen revenues, and $\alpha = 0$ when they all come from bribes. I take α to be exogenous, which can capture underlying institutions, e.g. legal sanctions, that determine the ease with which revenues can be stolen, relative to sanctions that punish bribery.[5]

Next, I 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

I adopt the selectorate framework of Bueno de Mesquita et al. (2003) in which the political leader is supported by a coalition of selectorate members. This allows one to generate results across the whole spectrum of political regimes - democracies in which the size of the coalition is close to one-half of the selectorate, and autocracies in which the coalition is much smaller. Smith (2008), Gehlbach (2013), and Desierto (2018) use the framework to analyze the provision of public goods.

Here, I let the incumbent leader and the opposition differ in their level of competence in providing public goods. I also allow the leader to appropriate rents by stealing some revenues and by extracting bribes from the value of the public goods on which (unstolen)

[4]Theft as direct transfer of revenues to the politician and her patrons is seen in political agency models a la Barro (1973), Ferejohn (1986), and Persson and Tabellini, while bribery is akin to lobbying in Grossman and Helpman (1994, 2001), where the amount of bribes depends on the (marginal) value of public spending.

[5]For example, requiring strict evidence of quid pro quo could make it harder to prove allegations of bribery and thus could generate a value of α close to 0. Meanwhile, 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.

revenues are spent. Total rents are then shared among the leader's coalition through transfers, while non-members of the coalition can only benefit from the public goods. Since the composition of the coalition can change - that is, any present coalition member can be excluded in future coalitions, both rents and public goods have to be provided in equilibrium. Thus, in more democratic regimes in which any selectorate member can easily move in and out of the ruling coalition, rents have to be sufficiently compensated by public goods. In this scenario, a more competent leader is better able to produce high-value public goods and therefore extract larger rents (through bribery). In this way, corruption is sustained by the leader's competence, and vice-versa.

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 forms a coalition of selectors of size W from selectorate S who are highest in her affinity ordering. Political challenger 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. (Transfer r thus captures rents that are shared among the ruling 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.

Since the transfers are the coalition's share in rents, the best policy offer that challenger C can make involves not keeping any rents for herself but using all revenues to provide public goods and transfers at a mix that her coalition members would find optimal. 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 $\frac{W}{S}$. 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 $g = \theta(\tau - r)$ – that is, r is stolen from revenues τ and shared to all coalition members, and the remaining revenues are spent on public goods. The third possibility is a mix: $g = \theta(\tau - \alpha r) - (1 - \alpha)r$, where as in equation (1), α is the fraction of rents that comes from stolen revenues. Recall that (1) covers the special cases of (pure) theft when $\alpha = 1$, and (pure) bribery when $\alpha = 0$.

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

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

and the value of the challenger's offer is

$$V_C = u\big(\theta^C(\tau - \alpha r_C) - (1-\alpha)r_C, r_C\big) + \delta\Big[\frac{W}{S}V_I + (1 - \frac{W}{S})\frac{u(\theta^I(\tau - \alpha r_I) - (1-\alpha)r_I, 0)}{1-\delta}\Big], \tag{4}$$

where θ^I denotes the competence of the incumbent, θ^C the competence of the challenger, and r_I the transfer given by the incumbent.

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

$$V_I = \Big[\frac{1}{1 - \frac{\delta W}{S}}\Big]\Big[u\big(\theta^C(\tau - \alpha r_C) - (1-\alpha)r_C, r_C\big) + (1 - \frac{W}{S})\frac{u\big(\theta^I(\tau - \alpha r_I) - (1-\alpha)r_I, 0\big)}{1-\delta}\Big]. \tag{5}$$

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

$$V_I = \frac{u\big(\theta^I(\tau - \alpha r_I) - (1-\alpha)r_I, r_I\big)}{1-\delta}. \tag{6}$$

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:

$$F \equiv \frac{u(g_I(\theta^I, \tau, \alpha, r_I), r_I)}{1-\delta} - \Big[\frac{1}{1 - \frac{\delta W}{S}}\Big]\Big[u(g_C(\theta^C, \tau, \alpha, r_C), r_C) + (1 - \frac{W}{S})\frac{u(g_I(\theta^I, \tau, \alpha, r_I), 0)}{1-\delta}\Big] = 0 \tag{7}$$

The threat of political punishment, that is, of being replaced by a challenger does not necessarily prevent the incumbent from rent-seeking – the incumbent can obtain rents because the challenger would also do the same. In fact, Proposition 1 shows that the incumbent's rent offer rises by more than the challenger's, i.e. $\frac{\partial r^I}{\partial r^C} > 1$, if the weighted marginal utility from the incumbent's offer of rents and public goods is larger than the weighted marginal utility from the challenger's offer. Specifically:[6]

Proposition 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),*

[6] If this condition does not hold, then $\frac{\partial r^I}{\partial r^C} \leq 1$, which means that it is possible that $\frac{\partial r^I}{\partial r^C} < 0$.

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.)

Note that Proposition 1 does not impose any restriction on the relative values of g_I, g_C and r_I, r_C. The results in Gehlbach, Smith, and Desierto, in which $g_I = g_C$, $r_I < r_C$, and $\frac{\partial r_I}{\partial r_C} < 1$ are a special case. By imposing $g_I = g_C \equiv g$ and $r_I < r_C$, Proposition 1 implies that $\frac{\partial r_I}{\partial r_C} < 1$ if $au'(r_C) - cu'(r_I) < (d-b)u'(g)$.

More importantly, the special case is obtained when the incumbent is less competent than the challenger. That is,

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

This implies that lower competence does not prevent the incumbent from providing the same level of public goods as a more competent challenger. Instead, it prevents her from obtaining higher rents than the challenger.

More generally, the following results establish that rents increase with the incumbent ruler's competence given two key conditions. First, the size W of the ruling coalition must be sufficiently large. As Lemma 3 implies, the marginal value of public goods, $u'(g_I)$, need not be much larger than the marginal value of rents, $u'(r_I)$, since $\frac{u'(g_I)}{u'(r_I)}$ can be close to 1 and still be greater than $\frac{S-\delta W}{W-\delta W}$ when W is large. Second, rents are obtained mostly from bribes, rather than stolen revenues – that is, α is close to zero. In fact, as Proposition 4 shows, for a sufficiently small α, $\bar{\theta}^I$ could be non-positive, which means that rents always increase with competence (provided that the regime is sufficiently democratic).

Lemma 3 *Let $\bar{u}'(g_I) \equiv \left(\frac{S-\delta W}{W-\delta W}\right)u'(r_I)$. Then $\bar{u}'(g_I)$ is smaller, and $u'(g_I) > \bar{u}'(g_I)$ and $\frac{u'(g_I)}{u'(r_I)} > \frac{S-\delta W}{W-\delta W}$ are more likely, when W is large.*

Proposition 4 *Suppose W is sufficiently large such that Lemma 3 holds, and let $\bar{\theta}^I \equiv 1 - \frac{1}{\alpha}\left(1 - \frac{\bar{u}'(g_I)}{u'(g_I)}\right)$. Then $\frac{\partial r_I}{\partial \theta^I} > 0$ if $\theta^I > \bar{\theta}^I$, which is more likely when α is close to zero.*

These results clearly establish that the trade-off between corruption and competence is more pronounced in democracies, and when the corruption occurs through bribery, rather than theft. Under these conditions, the bargaining power of the selectorate who demand public goods, and the bargaining power of the leader who is able to produce high value public goods while earning bribe-rents for her coalition are high. In equilibrium, the marginal value of rents and the marginal value of public goods can be very close to each other. In other words, there is a close trade-off between corruption and competence.

4 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 the more rent-seeking is done through bribe-taking rather than through theft, 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 potentially explain why political malfeasance is rarely punished by citizens.

References

[1] Arias, Eric, Larreguy, Horacio, Marshall, John, and Querubin, Pablo. 2019. "Priors rule: When do malfeasance revelations help and hurt incumbent parties?" Revise and Resubmit, *Journal of the European Economic Association.*

[2] Barro, Robert J. 1973. "The Control of Politicians: An Economic Model." *Public Choice* 14: 19-42.

[3] Boas, Taylor, F., Hidalgo, Daniel, and Melo, Marcus A. 2018."Norms versus Action: Why Voters Fail to Sanction Malfeasance in Brazil." *American Journal of Political*

Science. https://doi.org/10.1111/ajps.12413

[4] Brollo, Fernanda, Nannicini, Tommaso, Perotti, Roberto, and Tabellini, Guido. 2013. "The Political Resource Curse." *American Economic Review* 103(5): 1759-1796.

[5] Bueno de Mesquita, Bruce, Smith, Alastair, Siverson, Randolph M., and Morrow, James D. 2003. *The Logic of Political Survival*. Cambridge, MA: MIT Press.

[6] Choi, Eunjung and Jongseok Woo. 2010. "Political Corruption, Economic Performance, and Electoral Outcomes: A Cross-National Analysis." *Contemporary Politics* 16: 249-262.

[7] Chong, Alberto, Ana De La O, Dean Karlan and Leonard Wantchekon. 2015."Does Corruption Information Inspire the Fight or Quash the Hope? A Field Experiment in Mexico on Voter Turnout, Choice and Party Identification." *Journal of Politics* 77(1):55-71.

[8] Desierto, Desiree. 2018. "What Resource Curse? The Null Effect of Remittances on Public Good Provision." *Journal of Theoretical Politics* 30(4): 431-450.

[9] Ferejohn, John. 1986. "Incumbent Performance and Electoral Control." *Public Choice* 50(1): 5-25.

[10] Gehlbach, Scott. 2013. *Formal Models of Domestic Politics.* Cambridge University Press.

[11] Grossman, Gene M. and Helpman, Elhanan. 1994. "Protection for Sale". *American Economic Review* 84(4): 833-850.

[12] Grossman, Gene M. and Helpman, Elhanan. 2001 *Special Interest Politics.* Cambridge, MA: MIT Press.

[13] Smith, Alastair. 2008. "The Perils of Unearned Income." *Journal of Politics* 70:780-93.

[14] Persson, Torsten and Tabellini, Guido. 2000. *Political Economics: Explaining Economic Policy.* Cambridge, Mass: The MIT Press.

[15] Rosas, Guillermo, and Luigi Manzetti. 2015. "Reassessing the Trade-off Hypothesis: How Misery Drives the Corruption Effect on Presidential Approval." *Electoral Studies* 39: 26-38.

[16] Winters, Matthew S. and Rebecca Weitz-Shapiro. 2013. "Lacking Information or Condoning Corruption? Voter Attitudes Toward Corruption in Brazil." *Journal of Comparative Politics* 45(4)': 418-436.

[17] Zechmeister, Elizabeth J. and Daniel 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 Proposition 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 Proposition 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

The condition $u'(g_I) > \bar{u}'(g_I)$ is more likely to hold when $\bar{u}'(g_I)$ is small which, in turn, is more likely when W is large, since $\frac{\partial \bar{u}'(g_I)}{\partial W} = \frac{-(W-\delta W)(\delta u'(r_I)) - (S-\delta W)u'(r_I)(1-\delta)}{(1-\delta)^2} < 0$.

Proof of Proposition 4

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 $\bar{\theta}^I \equiv 1 - \frac{1}{\alpha}\Big(1 - \frac{\bar{u}'(g_I)}{u'(g_I)}\Big) < \theta^I$, with $\bar{u}'(g_I) \equiv (\frac{S-\delta W}{W-\delta W})u'(r_I)$. Thus, $\frac{\partial r_I}{\partial \theta^I} > 0$ if $\theta^I > \bar{\theta}^I$. Since $\bar{\theta}^I$ is increasing in α, then it is more likely that $\theta^I > \bar{\theta}^I$ and, hence, that $\frac{\partial r_I}{\partial \theta^I} > 0$ the closer α is to zero.