Competition among Officials and the Abuse of Power

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Abstract

Traditional economic theory suggests that competition among officials providing government goods tends to reduce corruption. However, empirical evidence does not yet support this view. In this paper, I show that a corrupt and powerful central authority can use competition among officials to amass resources for itself. While competition reduces corruption at the lower level of government, corruption at the higher level of government is increased. To avoid widespread theft from the central authority, competing officials are monitored more intensively than a monopolist. Hence, even though competition among officials generates more consumer surplus, it may reduce welfare.

Keywords: Corruption, Competition

JEL-codes: H1, K4

1 Introduction

Corruption is a widespread phenomenon and a large literature has addressed the topic in order to find remedies (see e.g Svensson 2005). Rose-Ackerman (1978) and Shleifer and Vishny (1993) argue that introducing competition among corrupt bureaucrats providing government goods could reduce corruption. However, there is as yet no convincing empirical evidence that competition among officials actually reduce corruption

(Svensson 2005). One reason could of course be difficulties to find good data. This paper provides another explanation. I show that a corrupt central government can use competition among officials for its own benefits, and thereby increasing corruption.

I will assume that both the central government and bureaucrats are corrupt. This is in contrast to much of the literature that has focused on corruption at the lower level of government (Shleifer and Vishny 1993, Banerjee 1996, Reinikka and Svensson 2004 and Reinikka and Svensson 2005). However, available empirical evidence suggests that high-level politicians commonly abuse power in their own interest (Svensson 2005).

I examine a model where officials sell government goods, such as permits or import licenses, and where the central authority (e.g. a president, minister or a high-level bureaucrat) and low-level officials are assumed to act solely in their own interests. The central authority can either extract rents up front through selling the offices or ex post through fees. Up-front collection is costly due to ex-ante auction inefficiencies and ex-post collection is costly because officials may steal.

An illustrative example of the model showing how corruption at different levels occur interdependently is given by Wade (1982) who studies the strategic corrupt usage of a canal irrigation system in India in the early 1980s. Under this system, farmers consistently had to bribe lower level officials in order to direct water to their fields. Well aware of the surplus this created, the minister in charge of irrigation used a two-part tariff system to extract rents. First, ex ante, potential officials had to make up-front payments in order to become an official and then they paid additional fees during tenure.

Whenever up-front collection is profitable, then the central authority prefers using a monopoly in order to increase the revenue when selling the office. However, when this is not the case, and when the probability of theft is low, then competition among offficals will be selected to expand the revenues from fees. In fact, if the probability of theft is sufficiently low, then competition among officials generates more total corruption than a monopoly would.

I show that when the central authority is benevolent, then the result is identical to that of Rose-Ackerman (1978) and Shleifer and Vishny (1993); competition eliminates corruption. However, a corrupt and powerful central authority can resolve the monopoly power of the bureaucrat to amass resources for himself. A weak central authority would instead opt for a monopoly.

An example, which fits into the model, is that of feudal Europe where the federal governments were so weak that they could not penalize officials in provinces (Shleifer & Vishny 1993). As our model predicts the feudal European kings consistently granted monopolies for rent extraction (see for example Swart 1980 and North 1981).

A non-stealing competing official's profit is equal to zero. This implies that she has more to gain from stealing from the central authority than a monopolist. In equilibrium, the CA therefore optimally monitors the competing officials more intensively, which reduces welfare. In addition, the fact that more than one official has to be monitored of course increases the monitoring costs. Hence, even though competition among officials increases welfare due to the increased sales of permits, the overall effect on welfare may be negative.

The paper proceeds as follows. In Section 2, the monopoly model is presented and solved. Section 3 introduces competition among officials. Section 4 shows welfare aspects and Section 5 introduces a benevolent CA. Section 6 concludes.

2 The Model

I consider the provision of a single homogeneous government-produced good, say a permit. Consumers have a linear inverse demand for the permits, $p(q) = a - bq$, where a and b are constants and q is the number of permits allocated by one official. I initially consider the case where permits are provided by a single government official who can constrain the quantity of permits. I then allow for competition among officials in the provision of the good. The central authority (CA) uses the official to extract rents from consumers. The CA sells the office for up-front payments, and demands a fee, $\theta \geq 0$, per permit sold, which is paid ex post. Several studies show that corrupt leaders sell valuable offices, even though this activity is typically illegal, (Huntington

1968, Wade 1982, 1984, Riordan 1995 and Coolidge and Rose-Ackerman 1997) and then often expect more payments in terms of variable fees (Wade 1982, 1984, Shleifer and Vishny 1993 and Djankov et al. 2002). To extract the rents up front, the CA is assumed to use an auction in which case it collects non-refundable bribes, $\mathbf{x}$, from several potential officials but only one official gets the office.

Officials can cover up the sale of permits (similar to Shleifer and Vishny 1993) at the risk of getting caught by the central authority (or a judiciary) who can intervene and penalize officials at a cost $c > 0$.[1] The penalty, t, which is determined by the CA, is independent of the amount of theft.[2] The maximum amount the CA can take from a stealing official is her ex-ante wealth, $\bar{t}$.

The decisions in the model are taken in the following order. The CA first selects and announces the fee, θ. Potential officials then bid for the office. This is followed by the monitoring and theft decisions and the CA's decision on the penalty. After that, the official selects the quantity, q, and finally, the potential penalties are enforced. The game is solved by backward induction starting at stage four when the official sells the permits.

2.1 Stage four: the market for permits

The profit of the official is given by

$$\pi = (a - bq)q - \theta q \tag{1}$$

where, θ, is the fee per permit determined by the CA at the first stage of the game. The number of permits that maximizes the official's profit is given by

$$q^*(\theta) = \frac{a - \theta}{2b}. \tag{2}$$

[1] In theory, the CA would know how much is stolen. However, monitoring may be needed to verify theft. In addition, official may steal and then promptly leave the position. To prevent this, the CA needs to monitor the official.

[2] A motivation for this is that the structure of law against corruption tends to be relatively insensitive to the scale of corruption (see Banerjee 1995, 1996).

The price, or bribe, consumers have to pay to acquire a permit is given by

$$p^*(\theta) = \frac{a+\theta}{2}. \tag{3}$$

The profit of the official if she does not steal is equal to

$$\pi^{NT}(\theta) = \frac{(a-\theta)^2}{4b} \tag{4}$$

where the superscript NT denotes no theft. If she steals, then she does not pay the fee, i.e., $\theta = 0$. The profit when issuing permits without paying the fees is given by[3]

$$\pi^T = \frac{a^2}{4b}. \tag{5}$$

The offical earns $\frac{a^2}{4b} - \frac{(a-\theta)^2}{4b}$ by stealing but she is also exposed to the risk of getting caught and penalized.

2.2 Stage three: monitoring and theft

At stage three, the penalty, theft, and decisions are made. The optimal penalty is $t = \bar{t}$ since the central authority is constrained only by limited liability on the part of the official.[4] The payoffs determining the monitoring and theft decisions are shown in *Figure 1.*

Central Authority

Official		Monitor	Not Monitor
	Theft	$\pi^T - t,\ \ t-c$	$\pi^T,\ \ 0$
	No Theft	$\pi^{NT}(\theta),\ \ \theta q^*(\theta) - c$	$\pi^{NT}(\theta),\ \theta q^*(\theta)$

Figure 1. The Game between the Central Authority and the Official.

[3] The results do not change qualitatively if we instead assume that the official steals some fraction, λ, of π^T, such that $\lambda\pi^T > \pi^{NT}$.

[4] Our results do not change qualitatively if we instead allow the penalty to be a function of the uncovered amount of corruption, and let the CA take the stealing official's ex-post wealth, $t = \bar{t} + \frac{a^2}{4b}$.

We assume that $\pi^T - t < \pi^{NT}$ and that $t > c$ so there are no pure strategy equilibria of the game. We later show that these are not restrictive assumptions.

We now solve for the mixed strategy equilibrium that would make the CA indifferent between monitoring and not monitoring, and the official indifferent between stealing and not stealing. The mixed strategy equilibrium probability of theft, μ, is equal to

$$\mu = \frac{c}{t}. \tag{6}$$

A lower cost of monitoring the official and a higher penalty increases the probability of theft.[5] The mixed strategy equilibrium probability of monitoring, λ, is given by

$$\lambda = \theta \frac{2a - \theta}{4bt}. \tag{7}$$

We can now derive the CA's expected profit from the fees. They are in equilibrium equal to

$$\Pi^F = (1 - \mu) q^*(\theta)\theta. \tag{8}$$

Note that the CA's revenues from the penalty and the cost of monitoring the official exactly cancel in equilibrium. This is because in the mixed-strategy equilibrium, the CA's expected profit has to be the same from monitoring and not monitoring. The expected profit for the official is equal to

$$\pi^*(\theta) = \frac{(a - \theta)^2}{4b}, \tag{9}$$

Because the official in equilibrium is made indifferent between stealing and not stealing, the expected profit is equal to the profit without theft.

[5] Goel & Rich (1989) and Goel and Nelson (1998) using US state data show that the probability that officials take bribes decreases as the penalties for corruption increases.

2.3 Stage two: the choice of officials

At stage two, the CA sells the office to extract rents. Assume that n identical potential officials compete for the office and that the CA uses the following mechanism where the probability to become an official, P_i, for a potential official i is given by

$$P_i = \frac{x_i}{\sum_{j=1}^{n} x_j}. \tag{10}$$

The more non-refundable bribes, given by x_i, the potential official i pays the CA up-front relative to the bribes of all n potential officials, the higher is the probability to become an official.[6] The profit of a potential official i is then

$$\pi_i = \frac{x_i}{\sum_{j=1}^{n} x_j}\pi^*(\theta) - x_i. \tag{11}$$

She maximizes her profit with respect to the bribe x_i. The optimal bribe is given by

$$x^* = \frac{n-1}{n^2}\pi^*(\theta). \tag{12}$$

Since the bribes cannot be refundable, the CA's income from bribes is equal to

$$nx^* = \frac{n-1}{n}\pi^*(\theta). \tag{13}$$

Note that as n goes to infinity the CA extracts the full value of the monopoly.

An alternative setup is that the CA's revenue is determined in a bargaining process between the CA and potential officials. Since it is reasonable to assume that the

[6] This probability contest success function, originally used by Tullock (1980) for the analysis of rent-seeking contests and subsequently widely used in that literature, does not necessarily maximize the CA's revenues. However, it may reflect reality fairly well when it is illegal to sell offices. In this case, the CA cannot openly announce any price mechanism, which would maximize revenues, and therefore this may be a natural second best solution. In addition, bribes cannot be rebated to those failing to receive the office, because then it would be clear that he was selling favors. Baye et al. (1993) argue that this is exactly what happens in many lobbying campaigns. They write, "It is natural, therefore, for a political institution to arise such that lobbyist "ante up" before the prize is awarded, and these up-front payments are not refundable to those failing to win the prize" (Baye et al. 1993, p. 289).

CA's bargaining power increases in the number of potential officials, our qualitative results would remain in this setup. Another potential mechanism is a first price sealed bid auction. If officials borrow in order to buy the office and if they have private information about their interest rate, then this auction yields an identical result. In fact, any mechanism with the properties that the CA cannot extract the full value of the office, which is increasing in the number of potential officials, would generate the basic insights of the model.[7]

2.4 Stage one: the CA selects the fee

The CA's problem is now to find the fee, θ, that maximizes its profit, Π_M where the subscript M denotes monopoly. This profit consists of the up-front payments $\frac{n-1}{n}\pi^*(\theta)$ and the ex-post incomes from fees $(1-\mu)\theta q^*(\theta)$. We assume that the CA can commit to its ex-ante announcement of the fee. Thus, the CA solves the following problem

$$\max_{\theta} \Pi_M = \frac{n-1}{n}\pi^*(\theta) + (1-\mu)\theta q^*(\theta) \tag{14}$$

The first-order condition is equal to

$$\frac{a(1-\frac{n-1}{n}-\mu)+\theta(\frac{n-1}{n}-2(1-\mu))}{2b} = 0 \tag{15}$$

and the unique optimal fee is given by

$$\theta^* = \frac{a}{2}(1-\frac{\frac{n-1}{n}}{2(1-\mu)-\frac{n-1}{n}}). \tag{16}$$

We will assume a positive fee, i.e., that $\mu < 1-\frac{n-1}{n}$.[8] Increasing the fee, θ, will increase the CA's revenues from fees. However, the cost is that officials' expected profit, $\pi^*(\theta)$, is reduced, which reduces the CA's incomes when selling the office. More competition for the office (a higher n) will increase the up-front payments and make the

[7] Efficient menu auctions (see e.g. Bernheim and Whinston 1986) would not, but they are only possible if the potential officials can make negative contributions (Boylan 2000).

[8] This subsumes the earlier assumption $t > c$.

CA lower the fee. Similarly, the CA reduces the fee in respons to a higher probability of theft (a higher μ), which reduces his ex-post incomes from fees.

We now define corruption. High-level corruption, or the CA's profit from the sale of office and variable fees, is equal to

$$C^H = \frac{(1-\mu)^2}{2(1-\mu) - \frac{n-1}{n}} \pi^T. \tag{17}$$

We define low-level corruption as the profit of holding office less the payment that is done in order to get the office

$$C^L = \frac{(a-\theta^*)^2}{4bn} = \frac{(1-\mu)^2}{n\left(\frac{n-1}{n} - 2(1-\mu)\right)^2} \pi^T. \tag{18}$$

Total corruption is the sum of high-level corruption and low-level corruption

$$C^T = (1-\mu)^2 \frac{3 - 2\frac{n-1}{n} - 2\mu}{\left(\frac{n-1}{n} - 2(1-\mu)\right)^2} \pi^T. \tag{19}$$

From equation (3) it is evident that the price of permits in case of theft is equal to $\frac{a}{2}$ while it is higher in the case of no theft. The expected price level is given by

$$E(p^*) = \frac{a}{2}(\mu + (1-\mu)(1 - \frac{\frac{n-1}{n} - 1 + \mu}{2(1-\mu) - \frac{n-1}{n}})). \tag{20}$$

3 Competition among officials

I now encompass the possibility that several officials sell permits in competition. From the CA's point of view, the benefit of competition is increased sale of government goods. However, competition also reduces the officials' willingness to pay for the office.

Assume that two identical officials, i and j, sell the permits, that officials compete in prices and that the goods are perfect substitutes.[9] The price, $p = a - b(q_i + q_j)$, is in equilibrium when nobody steals equal to the fee, θ, so the quantity provided by one

[9] Assuming that the products are differentiated (imperfect substitutes) gives similar results.

official is in this case equal to

$$q^*(\theta) = \frac{a-\theta}{2b}. \tag{21}$$

The official's profit without theft is equal to zero. A stealing official, if only he steals, gets $(\theta - \varepsilon)\frac{a-\theta}{b}$ where $\varepsilon \to 0$. If both steals, then the profit is equal to zero. Stealing comes at a penalty cost t if monitored. Figure 2 shows the game between the officials and the CA. Assume that the penalty, t, is independent of the number of thieves and that the officials are monitored simultaneously and independently of each other.

The Central Authority monitors

Official j

Official i		Theft	No theft
	Theft	$-t, \; -t, \quad 2t-2c$	$\frac{\theta(a-\theta)}{b} - t, 0, t-2c$
	No Theft	$0, \frac{\theta(a-\theta)}{b} - t, t-2c$	$0, \quad 0, \theta q - 2c$

The Central Authority does not monitor

Official j

Official i		Theft	No Theft
	Theft	$0, \quad 0, \quad 0$	$\frac{\theta(a-\theta)}{b}, \quad 0, \quad 0$
	No Theft	$0, \quad \frac{\theta(a-\theta)}{b}, \quad 0$	$0, \quad 0, \quad \theta q$

Figure 2. The Game between the CA and Officials in Competition.

We assume that $t > \frac{\theta(a-\theta)}{b}$ and $t > 2c$ so there are no pure strategy equilibria of the game. The mixed strategy equilibrium probability of theft is equal to $\mu = \frac{c}{t}$ and the mixed strategy equilibrium probability of monitoring is equal to $\lambda = \frac{(1-\frac{c}{t})\frac{\theta(a-\theta)}{b}}{t}$. Because the offical is made indifferent between theft and no theft, his expected profit of the game is equal to zero. Since the CA only receives revenues if nobody steals, its problem is to maximize its profit Π_C (the subscript C denotes competition) with respect to the fee θ. It solves

$$\max_{\theta} \Pi_C = (1-\mu)^2 \theta q^*(\theta). \tag{22}$$

The optimal fee is equal to

$$\theta_C^* = \frac{a}{2} \quad \forall N > 1. \tag{23}$$

Note that the CA will never use more than two officials as all they do is to increase the probability of theft. The CA's profit, or high-level corruption, is given by

$$C_C^H = (1-\mu)^2 \pi^T. \tag{24}$$

where again $\pi^T = \frac{a^2}{4b}$ is equal to the monopoly value of theft. The officials' expected profit of the game, or low-level corruption, is equal to zero. If both officals steal, then the price level is equal to zero. If not both officals steal, then the price level is given $\frac{a}{2}$. The expected price level is therefore.

$$E_C(p) = \frac{a}{2}(1-\mu^2). \tag{25}$$

We now pose the question: under what conditions would the CA select competition among officials rather than a monopolist? By comparing its profit in the monopoly case, $\frac{(1-\mu)^2}{2(1-\mu)-\frac{n-1}{n}}\pi^T$ to the profit in competition, $(1-\frac{c}{t})^2\pi^T$, we get

Proposition 1 *If $\mu > \frac{1}{2}(1-\frac{n-1}{n})$, then the CA chooses a monopoly. If $\mu < \frac{1}{2}(1-\frac{n-1}{n})$, then two officials will be chosen.*

When there is no theft (if $\mu = 0$) and when a monopoly can be sold for its full value (or if $n = \infty$), then the CA is indifferent between the two market forms since both are first best solutions. But when the probability of theft is low and the income from up-front payments low, competition tends to be preferred. The reason is that fees, which the CA fully relies on in competition, will often be collected and that the up-front payments, which a monopoly partly relies on, will be small. Of course, whenever competition is selected, high-level corruption will be higher than in the monopoly case.

Competition eradicates petty corruption. As for total corruption, it may be larger in competition than in the monopoly case if the probability of theft is sufficiently low. Figure 1 depicts total corruption on the vertical axis and the probability of theft on the horizontal axis when $n = 2$ and $a = b = 1$. Competition among two officials is selected for $\mu < 0.25$ and a monopoly is selected when $\mu > 0.25$. For low values of μ (lower than 0,07) total corruption may be higher in competition compared to when a monopoly is chosen. The level of corruption is lowest for intermediate penalties. In other words, when the power between officials and the CA is divided, total corruption is low.

FIGURE 1 HERE

By comparing the levels of total corruption we obtain proposition 2.

Proposition 2 *If* $\frac{n-1}{n} > 1 - \sqrt{2}\sqrt{\mu} - 2\mu$, *then total corruption is higher in in the monopoly case than in competition. If* $\frac{n-1}{n} < 1 - \sqrt{2}\sqrt{\mu} - 2\mu$, *then competition may generate a higher level of total corruption.*

Competition has two effects on the price level. First, because officials undercut each other's prices, it reduces the price level as argued by Shleifer & Vishny (1993). Second, since the fee is the only source of income for the CA it will be set high. In fact, the CA acts as a monopolist with a marginal cost equal to zero, that is, it sets the fee equal to $\frac{a}{2}$. This is also the price level when not both officials steal, which happens with probability $1 - (\mu)^2$. If this is not the case, then the price is equal to zero. Since the probability of theft is not zero, the price level is always lower in competition than in the monopoly case, where it is at least equal to $\frac{a}{2}$.

Similar to the Rose-Ackerman's (1978) and Shleifer and Vishny (1993) I find that competition reduces petty corruption and the price level. Moreover, I show that the kind of competition they argue should be imposed may well be a corrupt central authority's choice. I contrast their results with the fact that competition leads to more grand corruption than a monopoly would. The welfare effects may also be different in a model with a self-interest central authority, which I now turn to.

4 Welfare

I define social welfare as the sum of consumer surplus, the rents from office and the value of the fees, less monitoring costs. The penalty, t, constitutes a transfer from stealing officials to the CA so it does not affect social welfare. Thus, social welfare in the monopoly case, W_M, is equal to

$$W_M = (1-\mu)(\frac{(a-p(\theta^*))q(\theta^*)}{2} + \pi(\theta^*) + \theta q(\theta^*)) + \mu(\frac{\pi^T}{2} + \pi^T) - \theta^* \frac{2a-\theta^*}{4bt}c. \quad (26)$$

The first term on the right hand side is consumer surplus plus the value of the office plus the value of the fees in the case when the official does not steal. The second term is consumer surplus plus the value of the office in the case of theft and the last term is the cost of monitoring.

In competition, social welfare is equal to

$$W_C = \mu^2 2\pi^T + (1-\mu^2)(\frac{(a-p(\theta^*))q(\theta^*)}{2} + \theta^* q(\theta^*)) - 2\frac{(1-\mu)\pi^T}{t}c. \quad (27)$$

The first term is consumer surplus if both officials steal. The second term refers to the case when not both officials steal. $\frac{(a-p(\theta^*))q(\theta^*)}{2}$ is the consumer surplus and $\theta^* q(\theta^*)$ the revenues from fees. Since $\theta^* = \frac{a}{2}$, the consumer surplus is given by $\frac{\pi^T}{2}$ and the revenues from fees are equal to π^T. If both officals steal, then these revenues accrues to the CA, and if one of the offical steals, then the revenues accrues to the stealing official. The last term is the cost of monitoring two officials.

Competition affects welfare through two channels. First, it promotes sales of the permits, which tends to increase welfare.[10] Second, there is an affect on the cost of

[10] This idea that corruption enables consumers to overcome regulation is not new (see e.g. Leff 1964 and Huntington 1968). Leff (1964 p. 11), for example, states "...if the government has erred in its decision, the course made possible by corruption may well be the better one". However, our analysis is partial and there is a vast literature dealing with reasons for why corruption is negative (see e.g. Rose-Ackerman 1978 and Shleifer and Vishny 1993). Rose-Ackerman (1978) for example warns of the difficulty of limiting corruption to areas in which it might be desirable. Shleifer and Vishny (1993) also argue that the fact that corruption has to be kept secret makes bureaucrats allocate resources to areas where there are opportunities for corruption and the social cost of this "can vastly exceed bribe revenues" (1993, p. 614).

monitoring officials. In equilbrium, the more profit officials earn from stealing, the more does the central authority monitor them. In competition, the profit an offical earns by stealing compared to not stealing is $\frac{a^2}{4b}(1-\mu)-0$. In the monopoly case, the official earns $\frac{a^2}{4b}-\frac{(a-\theta)^2}{4b}$ by stealing. Competition is only chosen when the probability of theft is low ($\mu < \frac{1}{2}(1-\frac{n-1}{n})$). In equilibrium, an official in competition therefore earns more from stealing than a monopolist whenever competition is chosen. This implies that the probability of monitoring is higher in competition. Since two officials have to be monitored in competition, this too increases the total monitoring costs. In sum, the overall effect of competition on welfare is therefore ambiguous.

5 A benevolent CA

Consider first the case of competition. The CA maximizes equation (27) with respect to θ. Not surpisingly, if not focusing on the monitoring cost, the CA will reduce the fee as much as possible to increase the trade and the consumper surplus. In addition, because a higher fee increases the amount an official will steal it also increases the monitoring intensity. Hence, too reduce the monitoring costs the fee will be set as low as possible. Consequently, the optimal fee will be $\theta^* = 0$ and welfare is given by $2\pi^T$. Giving away monopoly power to an official cannot generate a larger welfare than this, so competition will always be chosen, exactly in line with the predictions of Shleifer and Vishny (1993).

6 Summary

The earlier theoretical literature on corruption and competition among government officials providing government goods holds that this type of competition tends to reduces corruption. I show that competition can be used by a corrupt central authority to amass resources for itself. When a monopoly cannot be sold for its full value, and when the central authority is able to efficiently collect fees from its officials, then competition can be used to expand the revenues from fees. Therefore, while competition among officials reduces corruption at the low-level of the government, high level corruption, and possibly also total corruption, will be increased.

There does not exist any solid empirical evidence on this topic unfortunately (Svensson 2005). It would be interesting with more empirical work studying the relationship between competition among officials and corruption at different levels of the government.

References

[1] Banerjee, Abhijit (1995). "Eliminating Corruption.", Mimeo, MIT, Massachusetts.

[2] Banerjee, Abhijit (1996). "Can Anything be Done about Corruption." in *Current Issues in Economic Development: An Asian Perspective,* Muhammad. G. Quibria and J. Malcolm Dowling (eds.) (Oxford University Press, Oxford).

[3] Coolidge, Jacqueline G., and Rose-Ackerman, Susan (1997). "High-Level Rent Seeking and Corruption in African Regimes: Theory and Cases." World Bank Working Papers series: Governance, Corruption, Legal Reform, No: 1780. The World Bank, Washington DC.

[4] Djankov Simeon, La Porta, Rafael, Lopez de Silanes, Florencio and Shleifer, Andrei (2002). "The Regulation of Entry." *Quarterly Journal of Economics*, 117, 1, 1-37.

[5] Goel, Rajeev K. and Rich, Daniel P. (1989). "On the Economic Incentives for Taking Bribes." *Public Choice,* 61, 269-275.

[6] Goel, Rajeev K and Nelson Michael A. (1998). "Corruption and Government Size: A Disaggregated Analysis." *Public Choice*, 97, 107-120.

[7] Huntington, Samuel P. (1968). *Political Order in Changing Societies.* Yale University Press, New Haven, Connecticut.

[8] Leff, Nathaniel H. (1964). "Economic Development Through Bureaucratic Corruption." *The American Behaviour Scientist,* 8, 8-14.

[9] North, Douglass, C. (1981). *Structure and Change in Economic History.* W &W Norton & Company, Inc. New York, NY.

[10] Reinikka, Ritva and Jakob Svensson (2004). "Local Capture: Evidence from a Central

Government Transfer Program in Uganda", *Quarterly Journal of Economics*, 119, 679-705.

[11] Reinikka, Ritva and Jakob Svensson (2005). "Fighting Corruption to Improve Schooling:Evidence from a Newspaper Campaign in Uganda", *Journal of the European Economic Association*, 3, 259-267

[12] Reinikka, Ritva and Jakob Svensson (2005). "Fighting Corruption to Improve Schooling:Evidence from a Newspaper Campaign in Uganda", Journal of the European Economic Association, 3, 259-267.

[13] Riordan, William (1995). *A Series of Very Plain Talks on Very Practical Politics.* Signet Classic, New York, NY.

[14] Rose-Ackerman, Susan (1978). *Corruption: A Study in Political Economy.* Academic Press, New York, NY.

[15] Shleifer, Andrei and Vishny, Robert (1993). "Corruption.", *Quarterly Journal of Economics*, 108, 599-617.

[16] Svensson Jakob (2005), "Eight Questions About Corruption", *Journal of Economic Perspectives*, 19, 19-42.

[17] Swart, Koenraad, W. (1980). *Sale of Office in the Seventeenth Century.* Hes Publishers, Uthrect.

[18] Wade, Robert (1982). "The System of Administrative and Political Corruption: Canal Irrigation in South India." *Journal of Development Studies,* 18, 287-328.

[19] Wade, Robert (1984). "Irrigation Reform in Conditions of Populist Anarchy." *Journal of Development Economics, 14, 285-328.*