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A Review of Theory

Center for Globalization and Europeanization of the Economy

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How Corruption in Government Affects Public Welfare
— A Review of Theories

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Abstract

The objectives of government are pivotal to understanding the diverse negative effects of corruption on public welfare. Corruption renders governments unable or unwilling to maximize welfare. In the first case, it distorts agents' decisions and limits the contractual space available to agents and the government, acting as a benevolent principal. In the second case, a corrupt principal creates allocative inefficiencies, cripples its credible commitment to effective policies, and opens the door to opportunism.

JEL: D61, D72, K4

Keywords: Corruption, welfare, principal-agent-theory, rent-seeking, x-inefficiency, kleptocracy, opportunism.

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1. Introduction

Self-interest is commonly assumed to enhance prosperity because, like an invisible hand, competition leads suppliers to best serve those who demand their products and ensures that these products reach those who most value it. But this type of invisible hand may not exist when private actors deal with the government, request publicly controlled goods or supply products to the state. Quite the contrary, instead of a force that transforms self-interest into efficient outcomes, there may exist an invisible tripwire that topples all parties deeper into distress. Brock and Magee [1984] have introduced the term "invisible foot" for this effect of competition among self-seeking actors. Corruption is the most prominent reason why the exchange between government and its citizens may be a source of inefficiency — one which has been extensively studied of late. Corruption, defined as the misuse of public power for private benefit, involves money changing hands. In some cases, the rich and corrupt become even richer at the expense of the honest and poor. There can be distributional consequences that trigger resentment in the majority of the population. But these distributional effects are not easily linked to public welfare as it is commonly defined by economists. There is a growing empirical literature based on comparative country studies, emphasizing that corruption lowers investment, capital productivity, capital inflows and many other macroeconomic data that are relevant to public welfare, [Lambsdorff 1999]. This study will review the theoretical causes for such an effect on public welfare.

A brief review of the (neo-)classical arguments on corruption and welfare is given (section 2). But it is argued that the explanatory power of these arguments is limited. A principal-agent model provides a better approach (section 3). Governments are commonly assigned the role of the principal in agency theory. Welfare losses result from the limited control and power of principals and because corruption constrains the contractual space and disallows agents to commit themselves to honest dealings. But this approach may have to be modified with competition for the principal's position. Such competition may result in a principal striving for non-benevolent goals. Lacking a commitment to serve public interest, the principal may provoke X-inefficiency or cause the type of waste described by rent-seeking theory (section 4). The principal may even be part of the problem if it strives for its own corrupt goals (section 5). Besides allocative consequences such principals may be unable to credibly commit themselves. It will be concluded that depending on the role of government the adverse effects of corruption on welfare can be substantially different (section 6).

2. The Classical Debate

Corruption commonly entails the providing of a service by a public servant or politician in exchange for a bribe. As long as this takes place voluntarily, both actors will be better off, making it difficult to argue that public welfare has suffered. Indeed, some economists consider corruption to be a means of aiding the economy, particularly in the case of cumbersome regulation, excessive bureaucracy or market restrictions, [Bayley 1966], [Nye 1967], [Huntington 1968], [Leff 1964]. Morgan [1964: 414] argues: "Corruption can, in extreme cases, be not only desirable but essential to keep the economy going". Corruption emerges as a helpful inducement for reestablishing market efficiency and has gained recognition in economic textbooks, [Mankiw 2000: 123]. In light of the gains to corrupt parties, there is commonly no unequivocal argument that welfare losses occur. However, negative externalities may be imposed on others, for example on unsuccessful competitors. A common conclusion in this case is that the total effect of corruption cannot be determined *a priori* but depends on the size of externalities.

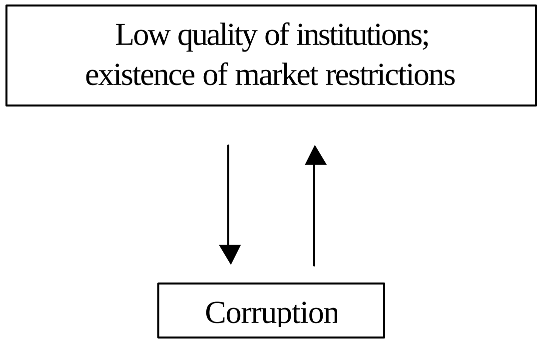
A similar conclusion can be drawn for a minor case of corrupt misdeed: the payment of speed money. As mentioned already by Douie [1917: 545] with respect to reduced levels of corruption in courts in Bengal, India: "If civil justice was dispensed with much less corruption than under native rule, the litigant had often little reason to congratulate himself on the change. A suitor may be ruined quite as effectively by interminable delays as by the necessity of paying for a decision." This suggests a tradeoff between administrative delays and corruption. Given excess demand for public goods and services, applicants have to line up according to the time of their arrival; files will be piled and not processed according to the needs of the applicants. The resulting waiting costs would be reduced if the payment of speed money could induce bureaucrats to increase their efforts and to process cases according to urgency, a need which might be measured by the applicants willingness to pay. This argument was opposed by Myrdal [1968: 952-3], who argued that corrupt officials might, instead of speeding up, actually cause administrative delays in order to attract more bribes. A similar proposition is put forward by Rose-Ackerman [1978: 90], arguing that bureaucrats behave like monopolists who profit from increasing prices by creating scarcity. To the contrary, with the help of a formal model Lui [1985: 773] argues that the effort required for a bureaucrat to serve a client represents a disincentive and makes shirking the norm among the bureaucracy. Payment of speed money would provide an incentive for speedier delivery. But this argument will not hold when bureaucrats are initially monitored to perform a decent service and income from speed money is used to pay off their supervisors. Or when politicians who could threaten to close down a non-performing civil service are passed on parts of the bribes in return for prolongating bureaucrats' labor contracts. An equal effect can arise when bribes distract bureaucrats from an intrinsic motivation to behave honestly and provide a decent service. In all of these cases, corruption is likely to slow down bureaucracy. Negative externalities from corruption will arise which must be assessed against the gains to corrupt parties.

Assuming that society considers corruption to be illegitimate and undesirable, one may tend to argue that the negative externalities of corruption outweigh the gains. But where poor institutional preconditions and extensive distorting regulation exist, some economists would rather downplay the size of these externalities and favor corruption as a means to open up new contractual possibilities, [Ades and Di Tella 1999]. Poor institutional conditions can provide fertile ground for corruption to flourish; however they are often not the basis but themselves a consequence of corruption, [Lambsdorff 2001b]. A vicious circle emerges of inefficient regulation leading to corruption, which in turn cultivates the further spread of regulation so as to enhance administrative power and the opportunity to exact further payoffs. As expressed by Myrdal [1956: 283]:

> "In many underdeveloped countries ... the damaging effect [of quantitative controls] have been serious. The system tends easily to create cancerous tumors of partiality and corruption in the very center of the administration, where the sickness is continuously nurtured by the favors distributed and the grafts realized. Industrialists and businessmen are tempted to go in for shady deals instead of steady regular business. Individuals who might have performed useful tasks in the economic development of their country become idle hangers-on, watching for loopholes in the decrees and dishonesty in their implementation."

As shown in figure 1, there is not only an impact of dysfunctional public institutions and market restrictions on corruption. Also the reverse impact exists. As this study will argue, corruption is likely to induce the selection of the wrong contractors and products in public procurement, the hindrance of competition and promotion of monopolies in public regulation, arbitrary decision-making and opportunism among public servants. To then defend corruption as a means to avoid cumbersome regulation would be misplaced. If this impact is considered to be relevant, welfare analysis of corruption should incorporate the investigation of institutions and regulation and must not consider them exogenous to the analysis. A political-economic viewpoint with endogenous assessment of regulations is required.

Figure 1: Institutions and Corruption

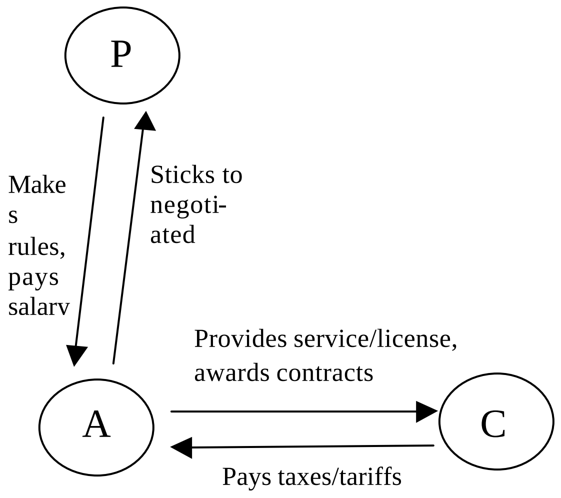


3. Benevolent Governments

3.1 The Principal-Agent Approach

An approach where the creation of rules is considered to be endogenous to the model is provided by principal-agent theory. While this model was initially developed for the relation between private contractual parties such as owners and managers, it has also been utilized to model bureaucracy and public institutions. Its application to the investigation of corruption goes back to Rose-Ackerman [1978: 6] and is meanwhile standard to many economists, [Jain 1998] and [Klitgaard 1988: 73]. An orthodox approach towards welfare suggests that economic actions are restricted by legislation and regulation, that these restrictions should be assumed to be exogenous to the analysis and that corruption can enlarge the set of possible actions to be taken by the parties involved.

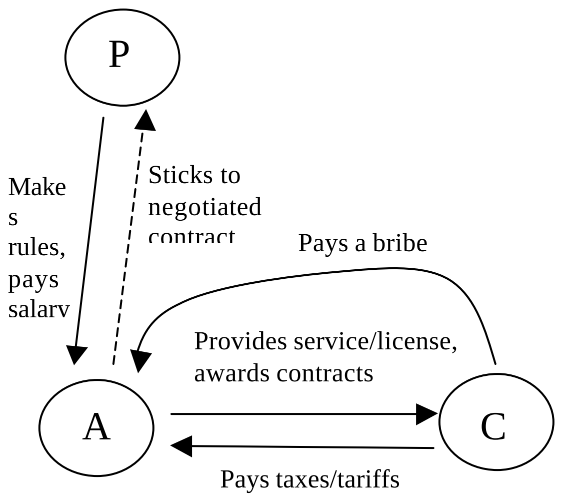
Figure 2: Basic Principal-Agent-Client Model



From a principal-agent approach the design of the regulatory system becomes the actual subject of analysis. For our purposes of government regulation, the model is commonly developed as in figure 2. The principal (P) creates rules directed at assigning tasks to the agent (A). These are intended to regulate exchange with the client (C). Such exchange relates to the payment of taxes and customs tariffs, the provision of services and licenses, or the awarding of contracts. This framework is then used to determine an optimal regulatory system.

A conflict of interests arises between principal and agent. While each of the two actors is maximizing utility, the principal may be insufficiently skilled or facing time constraints that favor delegation of tasks to the agent. But the agent in turn will have an informational advantage. Either his effort is not observable by the principal, he can hide information from the principal after the contract is negotiated, or he can obfuscate his qualifications before the contract is sealed. An example of the last-named case is that agents may have a certain propensity to behave honestly which is hidden to the principal, [Besley and McLaren 1993]. Given this informational advantage, it may not be possible to write contracts contingent on the agent's quality. Likewise a contract that specifies the agent's effort level is not enforceable, [Furubotn and Richter 1998: 179-80]. The principal thus faces problems of moral hazard or adverse selection. One solution suggested for the relationship between private parties is to pay the agent an "information rent" in the form of making him partly the residual claimant of the operation. This incentive aims at invoking truthful revelation of information and compliance to the terms of the contract. But in reality the role of such economic incentives is lower than predicted by theory, [Furubotn and Richter 1998: 202]. Not only does the common assumption of risk aversion restrict the attempt by principals to make agents residual claimants of the operation, but particularly for bureaucracies such incentives play a minor role, because there is no measurable economic surplus accruing to a bureau head, serving as a yardstick for remuneration, [Moe 1984: 763]. Governments, instead of rewarding honesty, often rather levy a "tax on honesty" on their citizens. For example, Hart [1970: 875-7] argues that taxpayers have tremendous scope for concealing their true income and may even bribe the revenue agent, so that honesty becomes expensive and is implicitly taxed by government. Instead of providing monetary inducements, principals may try to substitute costly incentives with an appeal to agent's intrinsic honest motivation. Or they may attempt to impose psychological barriers against agents' self-seeking, for example by encouraging moral conformity through education. Easier to describe in economic terms are attempts by agents to make credible commitments where the resulting signals of honesty are helpful indicators for principals. While the term "informational asymmetry" is an "amoral" term that does not include normative assessments, these mechanisms may explain why, in reality, principal-agent relationships are often supported by social norms like custom or professional ethics.

Figure 3: Corruption in the Basic Principal-Agent-Client Model

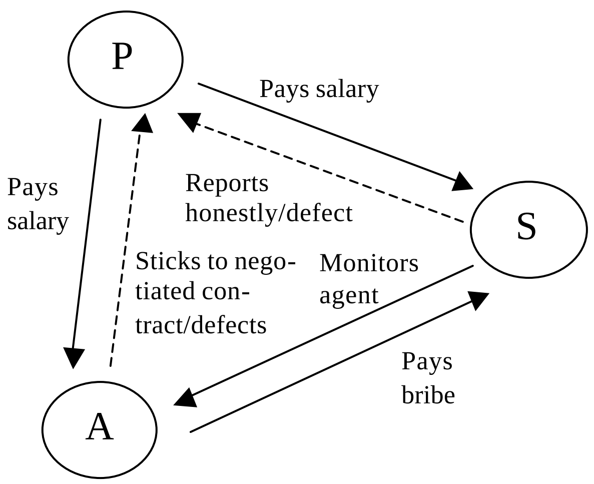


Whether the self-seeking behavior of agents can already be termed corruption may be food for debate. There is an unavoidable normative element in the judgment of whether an agent is regarded as being entitled to maximize his self-interest or whether this is a misuse of the public funds and a breach of the trust he bears. Particularly when the size of funds involved is small and the agent is simply lazy, the term corruption seems inappropriate. But in the case of large-scale cost-padding and embezzlement, some observers may consider this term adequate.[2] Another crucial characteristic of corruption can be seen in the agents' relationship to third parties. A client adds another dimension to the principal-agent approach, because he provides another opportunity for the agent to cheat. Corruption is deemed to take place when an agent trespasses on the rules set up by the principal by colluding with the client and pro-

[2] Whether embezzlement represents a type of corruption can be up to dispute because it does not require an exchange between two parties at the cost of others — that is, the existence of a client. But in order to conceal the true costs of a project and to over-invoice, agents often require the cooperation of

moting his own benefit. He obtains a bribe that is hidden to the principal. This is depicted in figure 3. The aim of a bribe is to loosen loyalty between agent and principal and induces the agent to bend the rules in favor of the client. It is this type of collusion between a client and the agent that distinguishes corruption from simple self-seeking behavior among agents.

Figure 4: Principal-Agent-Supervisor Model



Another variant of the principal agent model emerges when a supervisor/auditor is introduced, who is supposed to monitor the agent and report truthfully to the principal, so as to alleviate the informational asymmetries faced by the principal (see figure 4). But if a supervisor can collude with the agent, he can be induced to falsify his reports. For a review of the relevant literature see Khalil and Lawarrée [1995].

Case studies can be illustrative to show the relevance of the principal-agent approach. Some authors suggest that as a result of corruption, controls are circumvented, inferior contractors selected, inefficient technologies applied, inappropriate public projects promoted and ineffective policies implemented, [Frisch 1999: 92-4] and [Klitgaard 1988: 36-48]. Corruption and poor quality of investment projects are often linked. One example of poor quality is the Beijing West Rail Station. Platforms were built on mud rather than concrete. They sank and had to be rebuilt. Floors cracked, tiles warped, walls were damaged by water. Travelers found shattered glass panes and light fixtures, missing or misshapen ceiling panels. Elevators didn't work and fire-alarm systems were out of order. A Chinese investigation disclosed that bribes and other forms of corruption were the reasons that construction firms did not adhere to the specified contracts.[3]

Investment projects often require sound control of the construction firms. These private firms may try to economize on costs where this is not in the interest of the principal. For example they might claim to provide high quality work and charge the government accordingly

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outsiders. They employ clients who provide fake documents, falsely certify the provision of services and pay kickbacks for obtaining inflated prices in procurement.

[3] See Associated Press, 6.1.1999, "Corruption Rules in Modern China".

but instead provide inferior quality and make a profit on the difference. Two employees of the World Bank toured a dozen villages in Java, Indonesia, looking at schools built with World Bank funding only to find all of them crumbling just months after their completion. This was caused by massive corruption that resulted in the use of substandard material.[4] A road between Nairobi and Mombasa in Kenya, just recently repaired with funds from the World Bank, was destroyed by heavy rain, revealing that the tarring was too thin and the underlay insufficient. Just months after the repair, the road was back to its original condition, due to an administration lacking the required level of accountability. The local director of the World Bank explained one of the reasons for the poor quality of Kenya's roads. He admitted that corruption was an essential determinant.[5] Another factor contributing to the bad quality of roads in Kenya are weigh-station clerks who instead of protecting public highways turn a blind eye to overloaded trucks in return for a bribe.[6] Rose-Ackerman [1999: 18] provides further evidence for the low quality of investments in Korea and New York as a result of corruption.

Supervisors are often engaged to monitor and assess whether agents provided the contracted quality. If these take bribes instead of reporting malfeasance, agents can get away with bad quality work. Bribe-taking supervisors were behind a case in South Korea, where a department store collapsed in 1995, killing more than 500 people and injuring 900 others. Twelve officials were found guilty of receiving bribes for approving the mall's illegal design changes and haphazard construction. In 1998 a summer camp dormitory was given operating permission although serious safety problems existed. It was suspected the camp's owner bribed officials to get approval for his facility. In July 1999 the camp burned down, killing 19 children and 4 adults.[7] In Illinois, USA, driving licenses had been given to unqualified truckers in exchange for bribes. As alleged by one newspaper, the lack of qualification resulted in many crashes, injuries as well as an accident that killed six children.[8]

[4] See Wall Street Journal, 14.7.1998, "Speak No Evil: Why the World Bank Failed to Anticipate Indonesia's Deep Crisis".
[5] See Neue Zürcher Zeitung, 3.2.1998, "Der Regen ist nicht an allem schuld".
[6] See Philadelphia Inquirer, 26.4.2000, "Crumbling roads tell tale of corruption in East Africa".
[7] Both cases provided above were reported by CNN, 6.7.1999, "Police: official bullied to approve dorm that burned, killing 23".
[8] See Chicago Sun-Times, 6.10.1999, "Truck License Probe Widens" and Reuters, 17.1.2001, "Illinois Official Pleads Guilty in License Scandal".

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In addition to corrupt supervisors, tender officials who take bribes can also be the cause of noncompliance by private firms. This can result when the winning bidder is not best qualified but rather best connected or is most unscrupulous about paying bribes. Chinese bridges were of poor quality as a result of bribes and connections. A local Communist Party cadre member had accepted $12,000 in bribes in connection with its construction. Many of the defective bridges had to be torn down shortly after completion. Two others collapsed, killing altogether 40 people. Since the Communist Party cadre member was a former classmate of the contractor, allegations were raised that the best-qualified bidder had not been selected.[9]

Apart from the quality of investments, also poor administrative decisions can result from corruption. Hafner [1998] investigates the destruction of tropical forest. Case studies from Indonesia, Brazil, Cambodia and the Philippines show that business people profit from the felling of timber or burning of forest to clear it for plantation. Attempts by the state to protect the environment were either circumvented by bribing the public officials charged with enforcing the ban or by paying ministers and officials for awarding logging concessions. Rose-Ackerman [1999: 30-1] reports that in 1975 Nigeria imported cement far above its needs, an amount totaling two-thirds of the needs of all Africa. This inefficient purchase was motivated by kickbacks.

3.2 Welfare Implications

Corrupt agents certainly harm their principals. But the overall loss might be less because the agent gains and the principal may adjust. A net loss will result, however, if the agent not only makes inroads in the principal's realm, but if decision-making is distorted. This type of distortion is not easy to pin down. Agents will tend to contract with those who give the largest bribes. But in perfect markets, those who produce most efficiently can also afford the largest bribes. This conclusion is even valid when incomplete information about competitor's actions exists, [Beck and Maher 1986] and [Lien 1986]. But markets are typically imperfect and competitors will differ in their inclination to offer bribes, [Lambsdorff 1998 and 2000]. This commonly results from the large transaction costs associated with making corrupt deals. Due to the associated risks and the private institutional arrangements required to enforce corrupt deals, the circle of those in a position to make corrupt deals is limited to some insiders

[9] See Los Angeles Times, 1.3.1999, "China May Be Heading Down Road to Ruin" and Frankfurter Rundschau, 22.6.1999, "Wie auf Tofu gebaut".

[Lambsdorff 2001a]. Clearly, those who are most inclined to bribe and best connected for arranging a corrupt transaction are not necessarily the most efficient.[10]

Another distortion might be that customized goods present better opportunities to arrange for hidden payments than off-the-shelf products. Shleifer and Vishny [1993] report on a bottle-making factory in Mozambique that needed a new machine for fixing paper labels onto the bottles. A simple machine could have been bought for US $ 10,000, but the manager wanted a more sophisticated version for ten times that price. Since there was only one supplier of this machine, this provided sufficient room to over-invoice and pay a kickback to the manager. The loss to the factory would in this case have been substantial. Winston [1979: 840-1] argues that the risk associated with corruption increases with the number of transactions, the number of people involved, the duration of the transaction and the simplicity and standardization of the procedure. Since the risk does not clearly increase with the value of a transaction, large, one-shot purchases create a more efficient base for a kickback. This biases the decisions made by corrupt agents in favor of capital intensive, technologically sophisticated and custom-built products and technologies.

Furthermore, it can be the explicit goal of collusion between agents and clients to create distortions. When clients pay agents for restricting competition by harassing their competitors, distortions are a straightforward consequence of the corrupt dealings, [Bardhan 1997: 1322]. It may not help in this context that their competitors may do the same and that the most efficient firms may win the battle. Another apparent example at hand is when clients pay agents (and supervisors) for turning a blind eye to the use of sub-standard material, where the creation of a distorting decision is the actual intention of the corrupt inducement.

The principal, on the other hand, will seek ways to counter self-dealing by the agent by trying to induce the agent to reveal his true actions. But this will not be sufficient to avoid distortions. All the principal can achieve are second-best solutions. Losses still arise for all concerned because certain types of contracts which would be beneficial to both sides cannot

[10] Another position against this "efficiency" argument arises when a tender is not of a "winner takes all"-type but instead the less efficient firms are awarded other (smaller) projects. If only private firms are informed about their quality, the principal is limited in its capacity to treat each firm differently (according to its capacity), because the efficient firm may otherwise pretend to be less capable and gain from the slack, the difference between reported and actual effort it has to exert. This suggests that principals treat second best firms "excessively bad" so as to further deter efficient firms from masquerading. Therefore, adverse selection distorts the principal's decision-making and allows only second-best solutions, [Furubotn and Richter 1998: 202-12]. Bribes contribute to this inefficiency by distorting information and increasing problems of asymmetric information.

be carried out. Those aspects of an agreement which are not measurable and enforceable cannot be contracted for because the principal insufficiently oversees and limits the actions of his agent. Those contracts which require honesty and the absence of corruption will not be sealed when the principal faces an agent who will take advantage of the arising opportunities. The benefits such a contract would provide to both parties cannot be obtained. Ironically, corruption does not enlarge the contractual possibilities. Quite the contrary, these are limited when agents do not adhere to the prohibition of accepting side-payments. When agents cannot credibly promise to reject side-payments from clients, they are not trustworthy when writing contracts which require the absence of such payments. Principals will not offer such contracts in the first place. For example, it may be thought worthwhile to construct good-quality roads, but bad quality is expected to result from unavoidable collusive behavior; in this case, principals may cancel the project and the possible benefits for all parties cannot be achieved. Or imagine that a fair and efficient tax system should be established, but tax collectors cannot be kept from taking bribes in exchange for turning a blind eye to underreporting; the project may fall into disfavor and be terminated by the principal. A related situation arises for the principal's relation to a supervisor. If the supervisor cannot guarantee that he will not fake reports in exchange for a bribe, his contribution looses value for the principal and he may not be hired in the first place – even though an honest exchange would have been favorable to both parties. Anti-corruption becomes a public good, to be promoted by regulation, detection and sanctions. This fact has already been identified by Marshall [1897: 130]:

> "Everyone is aware of the tendency to an increase in the size of individual businesses, with the consequent transference of authority and responsibility from the owners of each business to its salaried managers and officials. This would have been impossible had there not been a great improvement in the morality and uprightness of the average man: for even as late as the seventeenth and eighteenth centuries we find the great trading companies breaking down largely in consequence of the corruption and selfishness of their officials."

It must now be noted that the overall level of corruption might be endogenous to the model, depending on actions taken by the principal. Reducing corruption is commonly costly to implement. Costs may arise from detection and punishment, [Klitgaard 1988: 26], from inducing agents to behave honestly, [Kofman and Lawaree 1996], [Laffont and Tirole 1993], [Olsen and Torsvik 1998], [Strausz 1995]; or reducing corruption may require downsizing government and permitting the persistence of market failure, [Acemoglu and Verdier 2000].

The optimum choice of the principal then includes a level of corruption which best balances the advantages from increased honesty among agents against these costs. Lower levels of corruption may not be entirely beneficial if they can only be achieved through excessive expense for detection, enforcement and incentives or if it goes along with an insufficient reduction of market failures. In so far as a benevolent government can effectively influence the level of corruption, one will assume it to choose this optimum level. But there can be limits to this influence and various other exogenous determinants of corruption levels may be more important than actions taken by the principal. Claims that levels of corruption are at their optimum may therefore be undue. But with a powerful and benevolent principal the worries about corruption should be limited.

4. Contested Governments

In the search of optimal incentive schemes, formal principal-agent models often assume that the principal has full control over the legal framework, over rewards and penalties, i.e. over incentives that impact on the agent's actions, see for example [Kofman and Lawaree 1996], [Laffont and Tirole 1993], [Olsen and Torsvik 1998], [Strausz 1995]. But one may question whether in reality governments have full control, [Moe 1984: 765-72]. Governments are faced with competition and must exert effort to remain in power and seek support from outside. This changes the analysis in various respects. First, it must be analyzed in how far the assumption of benevolence can be maintained. Second, the relationship between principal and agent will change, and third, the resulting competition may have additional welfare consequences.

4.1 Evolution and Benevolence

The assumption of benevolence seems overemphasized and has been criticized on a variety of grounds. Politicians may not be primarily motivated by productive efficiency or the public interest and they are not even seeking an optimally balanced set of hierarchical controls and monitoring mechanisms, [Moe 1984: 761-2]. One crucial reason for this is that politicians may also be motivated to gain power and remain in this position once achieved. Crucial to our analysis must therefore be in how far competition helps societies select benevolent principals and in how far the resulting welfare effects change our previous results.

In dealing with this issue, it must now be recognized that benevolence and power may not go hand in hand. Particularly in societies where corruption permeates many public institutions, the notion of a benevolent principal holding full power may be unrealistic. Those who control the legal framework and the various operations of government may not be immune to corruption. Legislation as well as its enforcement and the imposition of penalties may suffer from corruption. The role of the principal in this case can either be assigned to the benevolent actors category or the ones with power. If the first variant is pursued, the benevolent actors may be limited in their control and their chances of containing the level of corruption are hampered.[11] The second alternative would be to assign the role of the principal to those in power. This is the line of argument further pursued here — that is, principals have power but they are not necessarily benevolent.

At first, competition for the principal's position should enable societies to get rid of those performing particularly poor. Principals who care little about public welfare are unlikely to stay in power for long. On the other hand, competition does not ensure that benevolent persons obtain the principal's position. It may not operate like a hidden hand, substituting a possible lack of motivation among politicians with a mechanism for introducing benevolence into politics. It does not guarantee that inefficient programs are eradicated and that dishonest politicians are disposed of, [Moe 1984: 762]. This results particularly because corruption can be a means to subvert the selection process. Politicians with control over corrupt income may spend these resources in return for staying in power. Corruption and the power to allocate rents to supporters can be a helpful instrument for buying political survival. Honest politicians have fewer such resources at their disposal and may perish as a result of competition for political positions, [Buchanan 1993: 69]. Those who can trade in most political assistance are in a prime position for survival. As a result, benevolent principals may have to trade in some of their generous motivation for political support and those who put less emphasis on pursuing public interests may have a good chance of surviving in politics. In sum, competition alone may be insufficient to ensure that benevolence among the leadership prevails.

With principals struggling to retain control, agents are likely to become more powerful. For example, Niskanen [1975] has been prominent in arguing that the bureaucracy has a strong position vis-à-vis Congress. Politicians face restrictions from countervailing powers and they may have to seek the support of their agents to secure their own survival. Also, due

[11] This study largely identifies principals and government. This suggests that government acting as the principal is limited in its power and cannot control the various regulation authorities. Another ap-

to a division of power there might be multiple principals in place who all want to control the agent. The agents, in turn, may be in a position to favor one principal over another and obtain a stronger bargaining position.

4.2 X-inefficiency

One approach to model the resulting welfare effects has been offered by the theory of X-inefficiency. While this approach was modeled for different purposes it has also been considered useful for describing the adverse impact of corruption and government operations on public welfare, [Isham and Kaufmann 1999], [Button and Weyman-Jones 1994: 91-2]. In contrast to allocative inefficiency, this type of inefficiency is defined as one that originates from a lack of effort and motivation among the workforce, resulting in productive units not operating on the production possibility frontier. The original approach to X-inefficiency as developed by Leibenstein aimed at explaining the efficiency losses resulting from a lack of competition in private goods markets. In addition to the allocative losses depicted by the classical Harberger triangle, Leibenstein argues that monopolistic firms do not minimize costs for a given production level, [Leibenstein 1966: 398-402]. In a competitive environment, inefficient producers are put under pressure from competing firms, but monopolies can maintain their market position without effort. The market selects those firms that are able to efficiently use their factor inputs. But such a selection process does not exist in the case of a monopoly. This absence of pressure results in a lack of motivation and effort among the workforce and an inefficient organization of production. A chief manager in a firm may be willing and capable of optimally allocating his resources, but this is not likely to relate to his own effort level, [Leibenstein 1973]. Another aspect of competition is that it provides a mechanism for processing information and discovering the best alternatives. Rationality is not an *a priori* condition for making decisions but it emerges *ex post* when the inferiority of alternatives is detected, [De Alessi 1983: 74]. With a monopoly such a process does not take place. High-cost firms can survive, while neither managers nor shareholders become aware that other technologies could be tested and prove superior.

This parallels the situation faced by public institutions, where it may be questioned whether evolution selects benevolent principals who motivate agents to serve the public. The

proach would be to assign a powerful government the role of the agent, facing a benevolent but less powerful principal, such as the parliament or the constituency.

resulting type of inefficiency appears to apply particularly to an uncontested principal, a leadership position which is not repeatedly occupied by new and innovative persons. Societies miss the opportunity to test new applicants and types of leadership. Organizational innovation no longer takes place and the constituency does not become aware that alternatives may prove superior. Above that, the principal's subordinates may be aware of their uncontested position. Collective nonperformance among them does not cause their organizational unit to go bankrupt. Fears of loosing one's job are mitigated. Engendering a sense of responsibility for welfare-enhancing policies, being motivated towards a common goal along with supervising the effort exerted by colleagues is therefore harder to implement and may find few protagonists within an uncontested government. In such a situation governments may be little motivated to secure that agents serve the public. Shirking and laziness may be condoned. An equal conclusion can be drawn with regard to corruption, because the uncontested principal will avoid the effort required to control agents.

But competition for the principal's position may not represent an improvement in this respect when those politicians who own corrupt resources are at an advantage over honest contestants. One reason is that agents may become more powerful. Agents may be in a position to provide political support to a contested principal. Due to this position the principal may not be able to instigate competition between them, nor select the best qualified and highest motivated. Governments may now be forced to go along with corruption among agents, when these can effectively threaten to withdraw their support. Self-seeking among the bureaucracy is not contained as predicted by formal principal-agent analysis and corruption is far from being at its optimal level. Principals may be neither willing not able to fight corruption and contain the self-enrichment of their subordinates. In return for the political support provided by agents, principals must allow some bureaucratic slackness, some X-inefficiency, maybe even some outright bribe-taking among lower levels in the public service.

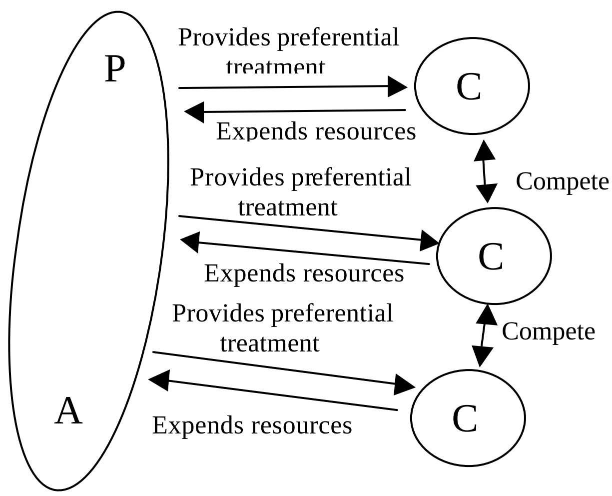
It has been questioned whether X-inefficiency represents a net loss of resources, because what the superior looses is won by the subordinate. The slackness among the workforce (in our case the bureaucracy) can be regarded as a non-monetary form of income. This income may outbalance the losses to the manager (in our case the government), [Stigler 1976] and [Parish and Ng 1972]. But X-inefficiency is likely to aggravate agency problems, [Button and Weyman–Jones 1992: 440 and 1994: 92-3]. Powerful agents obtain more leeway to follow their own self-interest. If, as argued before, opportunities for side-payments distort agents' decisions so as to pick the wrong firms, the wrong products and impede markets, lack of monitoring among politicians is likely to aggravate this distortion. When politicians turn a blind eye to public welfare, bureaucrats may easier obtain extra income by allowing the use of sub-standard material, by awarding contracts to less qualified bidders or by providing jobs to inadequate applicants.

4.3 Wasteful Competition

Another approach to model competition, lobbying and corruption has been suggested by protagonists of the Virginia School and representatives of the traditional rent-seeking theory, [Rowley 1988] and [Coate and Morris 1994]. While governments create laws and regulations, they may not be able to overlook its consequences and control to whom the resulting stream of incomes accrues. Lacking a clearly defined goal or being too naive to understand the vested interests that are behind the measures they are requested to support and implement, politicians are regarded there as mere brokers for the interests of others, [Tullock 1993: 26]. As a result, there is no consistent (benevolent) force which drives the regulatory system. There can be various reasons, other than benevolent, why new regulations are imposed on markets. Unlike traditional welfare analysis, rent-seeking theory is not concerned with the resulting inefficient allocation of resources in the product market. Rather, it is concerned with the problem that most types of regulation create artificial rents and invoke competition in the attempt to influence regulation on one's own behalf and to seize these rents. Private parties invest in lobbying. Costly campaigns are organized or lawyers hired to increase chances for winning artificially created rents. A marketplace emerges for preferential treatment by public decision makers, and private parties are requesting these services and investing resources for this purpose. These resources are not used to serve consumers and the public by increasing the cake, but rather to battle for a larger slice of the given cake for oneself. Welfare losses in this case arise because there is a zero-sum game where resources are invested into influencing the outcome. These expenses represent a form of waste because they go along with effort but not with increasing overall public welfare, [Lambsdorff 2001b].

While the existence of this form of waste appears plausible, it is not clear how it can be avoided. Advising governments to avoid the creation of rents can be naive when their creation is itself motivated by corruption. North [1984: 39] therefore argued that the form of waste identified by traditional rent-seeking theory may simply be a form of unavoidable transaction cost in political decision-making. Ironically, rent-seeking theory predicts that no loss of welfare occurs in the case of bribery and where there are monopolistic forms of rent-seeking. In the former case expenses for lobbying are not wasted but instead used to increase the benefit to a corrupt recipient, while in the latter case lack of competition means that the monopolist can avoid wasteful expenditures spent on staying ahead of rivals. Lambsdorff [2001b] shows that these conclusions are misplaced, primarily because corruption can be a source of inefficient regulation in itself. But the standpoint can still be maintained that losses result when a principal is merely a "passive broker among competing private rent seekers", [McChesney 1987: 102]. Waste arises when the principal is indeterminate, particularly with regard to who should receive the income resulting from artificially created rents.

Figure 5: The Rent-Seeking Perspective



As illustrated in figure 5, there do not exist specific roles for principal and agent within the traditional rent-seeking approach; politics embraces both of these roles. Rather, the rents created by political interference invite private parties to compete for preferential treatment which is now at the disposal of politicians and bureaucrats. The lobbying warfare involves the wasting of resources. As we will argue later, this type of waste is not likely to arise with perfectly powerful principals. But if principals must compete against potential rivals, they cannot be sure whether to remain in power. Expenses for lobbying, while wasteful to the public, may prove helpful to such principals, for example when they include donations to finance election campaigns or to harass rivals. Competition for the role of the principal involves that a vacuum of power emerges, inviting for lobbying warfare. Strong leadership may be the only type of governance which avoids this type of loss. But, certainly, whether such a strong principal is benevolent or not might have an even greater impact on public welfare. If corruption is considered to signal the lack of benevolence, its welfare effects can be much more severe than predicted by rent-seeking theorists.

5. Self-Seeking Governments

> The large firms use their political influence to get the rules changed, but they do tend to abide by the rules so changed. One wonders if this characteristic behavior of large organizations in modern society should not somehow be classified as an even more malicious sort of fraud. Or shall we continue to consider corruption an evil only if it is carried out by little people in small doses?
>
> J.M. Buchanan [1954: 353]

Corruption has been defined as the misuse of public power for private benefit. But the term "misuse" can be open to different interpretations. In section 3 it involved the rules set up by a benevolent principal which were trespassed by a self-seeking agent. This approach is no longer valid if the principal itself is maximizing its self-interest because the rules in this case do not deserve public adherence. The term corruption may be misplaced when applied to a disobedient agent who is disloyal to rules that are themselves the result of self-seeking. Instead, it may be more accurate to assign this term to the principal's own self-seeking behavior. In this case "misuse" is not clearly related to the trespassing of rules, which are the principal's own creation. The principal may create an environment where laws do not prohibit the self-enrichment of a ruling class, a situation where insufficient regulation is in place to restrict politician's self-seeking. Corruption can even accompany and underlie the writing and enforcing of rules and laws designed with the intention of furthering the principal's corrupt goals. With regard to the operation of central government units, this is expressed by Simons [1944: 4]: "An essential difference between federal and local corruption ... is that the latter generally stinks, while the former is generally practiced by seemingly honest people and effected in impeccably legal ways". The term "misuse" can no longer be applied to violating rules (in the legal sense). Instead, the act in question must either be regarded as illegitimate by the general public, or it may be an act that contradicts the public interest. Heidenheimer, Johnston and LeVine [1989: 3-14] provide a review of various approaches to defining corruption. Corruption in this context may best be described as the seeking of preferential treatment by public decision makers for the advancement of narrow interests, Lambsdorff [2001b].

The principal-agent approach becomes inadequate, because a corrupt agent may just take part of what the corrupt principal would otherwise get. The agency approach is primarily concerned with the distortion that results from the principal's limited capacity to control the agent. Such distortions can certainly also arise with a self-seeking principal and bring about inefficiencies. But if control is not carried out to benefit the public, it becomes ambiguous whether the limitations faced by the principal are a bad thing. Prerequisite to the agency approach would be that honesty among agents must allow for a deal with the principal which also benefits the public. But if the loyal agent serves the corrupt goals of the principal, only very odd circumstances could be imagined in which his loyalty also increases public welfare. Other approaches are needed to model corruption and to represent public welfare losses. A more promising way to assess the effects on welfare is by a straightforward reference to the goals pursued by the principal and less to the principal's limitations, as in section 2.[12]

5.1 Inefficiency by design

One such approach in which principals seek to strike deals which are unfavorable to the general public is provided by representatives of the Chicago School, [Stigler 1971] and [Posner 1974]. In their view, lobbying groups and politicians design regulations so as to create rents and promote the narrow interests of individuals or private parties. One crucial point with regard to the consequences to general welfare is that they do not consider any form of X-inefficiency to be relevant. Posner [1974: 337-9] argues that governments operate with reasonable efficiency. Bureaucrats are motivated in a way similar to private business persons. They are subject to similar supervision as well as competition from colleagues and other agencies. While there is no X-inefficiency associated with its operation, inefficiencies result from the kinds of goal pursued by governments. This comes about as politicians supply protection against troublesome competition by means of subsidies, import quotas, tariffs, tax exemptions and preferential treatment to interest groups paying for this service, [Stigler 1971]. In sum, governments operate with reasonable efficiency to purposefully attain deliberately inefficient goals, Posner [1974: 337-9].

While the term "corruption" is rarely mentioned in this context, the approach by the Chicago School emphasizes that the inefficiency of government operation does not result from its limitations or lacking motivation. As seen by representatives of the Chicago School,

[12] One may defend the applicability of agency theory by arguing that government should be regarded as an agent of the general public. But there is no consistent treatment of this scenario in the literature. The principal is commonly assumed to be benevolent and to have full control over the contract design. If these two characteristics do not fall hand in hand in reality, one may assign the role either to the benevolent party or to the one with the actual power. We pursue the second line of argument here.

it is not even the principal's self-seeking behavior which is responsible for the inefficiency of laws and regulations, but rather the strong leverage that interests groups have over government's operation. The government is not intentionally self-seeking, but falls victim to the self-seeking of private actors. Thus two types of regimes can be distinguished. Either self-interest brings about a "predatory government", a "grabbing hand" regime, [Djankov et al 2000] — in this case rules and regulations are designed so as to profit the government — or lobbying groups are in a strong position and regulations are created to generate rents for their benefit. But in both cases, the problem rests with a government's goals and not its limitations. Since representatives of the Chicago School consider government to strive for inefficient goals, any limitations upon the principal may actually be beneficial to the public interest instead of being a source of inefficiency — contrary to the agency approach.

Minimizing government may be a straightforward means of reducing its distorting impact. This is a measure that finds support among various economists, see e.g. Becker [1994] and for a critical review Orchard and Stretton [1997]. On the other hand, there can be disadvantages to this strategy; a weak government may invite the kind of wasteful expenditures described by rent-seeking theorists and much needed government services are insufficiently supplied. The argument to downsize government may be well heard in public debate. But it is not convincing that a public debate will effectively limit a self-seeking principal. A principal will inflate government as long as this serves its own goals. This includes that it may be willing to downsize government where government serves the public but resist such temptations where it would contradict its own self-seeking. Those aspects of government may survive which are least responsive to public debate and poorest in serving the population at large.

Self-seeking in government can lead to allocative distortions. Some of these distortions mentioned in the case of self-seeking agents may be equally relevant if principals further their own goals and try to increase their corrupt income. If opportunities for side-payments are larger for capital intensive, technologically sophisticated and custom-built products and technologies, it will now be the government itself who will distort decisions, and not those who act as agents. But the case of a corrupt principal may differ insofar as it controls the regulatory system and can follow its corrupt goals in an even more systematic way. The principal does not have to circumvent laws and regulations but can design them — to serve its own interests. One apparent effect of corruption can be that prices are distorted because the government takes advantage of its monopoly position. This occurs, for example, when tariffs are imposed in favor of domestic firms who share part of their income with corrupt politicians. A corrupt government can restrict the amount of necessary permits and licenses so as to create artificial scarcity. Another case are public utilities such as gas, water or telecommunications where politicians take kickbacks in exchange for contracts. For example, in spite of excess capacity for power in Indonesia in 1995 Siemens and PowerGen arranged to build Paiton II, another power plant. Bimantra, a local firm controlled by a son of President Suharto, was given 15 percent of the operation. In return, it arranged for a 30-year contract with PLN, the governments utility authority, at largely inflated prices demanded from Indonesian customers.[13] Such deals may be illegal in some cases, but government may successfully resist public demand to declare such actions illegal in others. The price paid for government services will increase, [Klitgaard 1988: 39], [Rose-Ackerman 1999: 28-9]. Another example is when private firms can obtain a monopoly position with the help of government protection, in exchange for favors.[14]

With respect to the nature of protectionism, this association between corruption and monopolistic behavior has already been highlighted by Edgeworth [1903: 574-5]: “Protection, once introduced into the body politic, is apt to increase and multiply; engendering not only its own kind, but also the evils of jobbery and corruption ... such attempts .. have established the tyranny of monopolies sustained by the corruption of public life.” Further case studies may illuminate this relationship. Pakistan’s gold trade was formerly unregulated and smuggling was common. Shortly after Ms Bhutto returned as Prime Minister in 1993, a Pakistani bullion trader in Dubai proposed a deal: in return for the exclusive right to import gold, he would help the government regularize trade — and make some further private payments. In 1994 the payment of US $ 10 million on behalf of Ms Bhutto's husband was arranged. In November 1994, Pakistan’s Commerce Ministry wrote to the trader, informing him that he had been granted a license to be the country's sole authorized gold importer — a profitable monopoly position.[15] Another illustrating case comes from Nigeria. The son of General Abacha was helpful in establishing the firm of Delta Prospectors Ltd., which mines barite, a mineral that is

[13] Far Eastern Economic Review, October 21, 1999, ”Trouble on the grid”, and Financial Times, March 10, 2000, ”Interim deal in Indonesia power dispute”.

[14] There are also examples of corruption lowering prices, particularly when it accompanies fraud. Customs officials may collect only the bribe rather than a more costly official duty. Tax collectors may lower the amount owed in exchange for a cut, [Shleifer and Vishny 1993]. At the legislative level tariffs can be lowered for favored sectors or tax privileges be given to industries in exchange for bribes.

[15] See The Straits Times, Singapore, 1.2.1998, “Paper trails points to illicit Bhutto hoard”, and 2.6.1998, “The Scandals”.

an essential material for oil production. In spring 1998, shortly after Delta's operations had reached full production, the government banned the import of barite. This turned the company into a monopoly provider for the large Nigerian oil industry.[16] Rose-Ackerman [1999: 37] provides further examples where market concentration has been increased as a result of corruption, even when formerly state-owned firms have been privatized. Another illustrative case stems from Saudi Arabia. Via the Internet, allegations were made concerning a son of the Minister of the Interior in Saudi Arabia. It was suggested that he had established a chain of body shops for car repairs. Afterwards he engaged his father to obtain a decree by the king, imposing a requirement for the annual inspection of all 5 million cars registered in Saudi Arabia in a licensed car repair shop. His chain was the first to obtain the license. As far as known, no evidence has been produced to substantiate the claims. But the existing rumors are helpful in illustrating the point being raised here.

Government officials can use their coercive power to create monopolies, form cartels or deter entry into markets, [Stigler 1971] and [Posner 1974]. Corruption provides a motivation for public decision makers to impose market restrictions, because they can pocket parts of the rents for themselves, [Lambsdorff 2001b]. Hindering competition may already be an option for agents. For example, police officials may offer to harass competing firms in exchange for a bribe. Or license authorities may restrict market entry when paid bribes from insiders. But principals can impose such restrictions in much more forceful way by making them part of law. The notion of corrupt public decision makers as monopolists, creating market restrictions and rents, suggests the application of a classical instrument of welfare economics to the analysis of corruption — the Harberger triangle. The governments' monopoly position implies that the bribes demanded are inefficient. The reason for this inefficiency is that mutually profitable exchange is impeded because the large price forces those out of the market whose willingness to pay falls short of the monopolistic market price. This is harmful to the actors because marginal costs of producing the product are lower than the monopoly price, and an exchange which is beneficial to both sides does not take place because the monopolistic government takes into account that lowering the bribe reduces the revenues obtained from all the other corrupt deals it undertakes. As a consequence welfare losses occur because equilibrium bribes are too high.

[16] See Washington Post, 9.6.1998; "Corruption Flourished In Abacha's Regime. Leader Linked To Broad Plunder".

At the same time, some areas or input factors are unattractive to those seeking a corrupt income. Investments may present a better opportunity to extract money as opposed to smaller labor contracts, [Mauro 1997] and [Tanzi and Davoodi 1997]. In extreme cases, public investments fail to meet public demand, resulting in "white-elephant projects". The Ajaokuta steel project in Nigeria, costing the state US $8 billion, is an example in this respect. The official justification was to industrialize the country so that local coke and iron could be used to build railways. But decision makers never paid attention to feasibility studies — as a result of national pride and large kickbacks associated with the project. Ajaokuta has yet to produce a single bar of steel and will probably never be able to do so at a profit.[17] As pointed out by Alesina and Weder [1999: 8], this distortion does not only arise in the case of public investments but is also relevant to private investments once investors belong to the inner circle of those profiting from bribery. Capital input will exceed its efficient level while labor input will fall short of it. Education is an area where corrupt principals find few opportunities to extract income for themselves. Mauro [1998] declares that expenditure levels will be too low, arguing that other expenditures offer public servants better opportunities to collect bribes. Similar considerations suggest that expenditure on maintenance is too low, particularly when a corrupt government can better extract bribes from new investments, [Tanzi and Davoodi 1997].

Tullock [1980: 27] and Shleifer and Vishny [1993] extend this welfare analysis by arguing that corrupt political structures which are monopolized are superior to disorganized monopolistic structures which are corrupt. The latter is the case if a businessperson must bribe several departments simultaneously for the operation of his business, for example local legislature, the central ministry, the fire authorities, the police and the water authorities. Each of these institutions acts independently and provides a complementary good because a businessperson needs permission from all. As a result of their independent maximization the departments "overgraze" the market. Each public servant does not take into account that the bribe he charges reduces business operations and consequently the bribes all the other departments can pocket. The departments therefore suffer from the lack of cooperation. This case much resembles that of groups of road bandits along a single road. Taking into account that extortion lowers road traffic, each group will determine the optimal "fee" it charges for using the road. But it does not take into consideration that the fee it charges also reduces the revenues of other road bandits. As a consequence of poor cooperation, the bandits will rob travelers excessively.

[17] See The Economist, 15.1.2000, "A Tale of Two Giants".

The inefficiency described originates from bribes being “too high” so that allocation is distorted towards other sectors. But there may also be a benefit from exorbitant bribes. When private parties are not seeking licenses and permits but goods such as market protection from public decision makers, excessively large bribes may be welfare enhancing. Since the good being exchanged does not add to public welfare but is a “bad thing”, large bribes inhibit their creation. But there are similar allocative inefficiencies resulting from the imposition of market restrictions, because prices rise in the protected market. But there is another favorable aspect of excessively large bribes which emerges when legal alternatives to a corrupt activity exist. Instead of paying a bribe, businesspeople may confront a corrupt government by reporting the case to the media, by seeking legal recourse or by writing complaints to various institutions. If government can successfully be pressurized, these alternatives become appealing to businesspeople particularly when bribes are high. This can in turn help to limit the self-seeking behavior of a corrupt government.

5.2 The Kleptocrat’s Dilemma

A self-seeking principal may try to avoid the various inefficiencies described, particularly one who is sufficiently strong. Corruption resulting in price increases is particularly distorting when it bears on some goods while the prices of others are unaffected. But such a distortion will not arise if prices for all goods and services increase evenly. When the impact of corruption is equal on all economic sectors, resource allocation will not be distorted to favor one sector over another. Cynics may conclude that losses in public welfare can be avoided by training scrupulous bureaucrats and politicians how to take bribes so as to level the playing field. One more realistic option would be for a self-seeking government in a very strong position to organize a corrupt system to operate like a tax. But bribes are still worse with regard to public welfare than taxes because they must be concealed, [Rose-Ackerman 1978: 8], [Shleifer and Vishny 1993]. Self-seeking governments may have to obfuscate their self-enrichment and employ costly mechanisms for gathering bribes. As a result, Rose-Ackerman [1999: 117] notes that “efficient regulatory reforms will be opposed by the kleptocrat if the reforms would convert illegal into legal pricing systems”. On the other hand, secrecy is not an issue when the media and the judiciary can be pressured to play along with political leaders who demand their cut.[18] And if a self-seeking government equally controls revenues that result from the legal pricing system it does not have to distort allocation to favor illegal pricing systems. Consequently, Murphy, Shleifer and Vishny [1993: 413] argue that the problems with corruption are mitigated when corrupt rulers can collect bribes efficiently.

Also the option of discriminating with prices would avoid a distortional allocation. Self-seeking governments may want to charge their customers according to their willingness to pay, discriminating with their prices between the needy and the less interested. One example in this respect is provided by della Porta and Vanucci [1999: 133-4], who report on corrupt bureaucrats. These demanded a bribe for forwarding from one office to the next dossiers which entitled applicants to receive advanced payments in public procurement. The size of the bribe depended on how quickly the entrepreneurs needed the payment and ranged from 1 percent of a contract (from an entrepreneur with a solid financial position who could afford to wait) to 2.5 percent (from another entrepreneur who was in chronic deficit). Those most vulnerable to bureaucrats' arbitrariness have to expend the largest additional payments. While this discriminatory power may cause the public to feel uncomfortable and deprived of its consumers' rent, the classic welfare loss does not occur. Instead, a corrupt government can seize the full rent and all deals that are mutually profitable are carried out.

A strong government will even seek to contain low-level corruption among the bureaucracy, as presented in sections 2 and 3. This behavior is already known with regard to laziness. Superiors will discourage slack behavior among subordinates because this absorbs "slack resources" which are otherwise available to themselves, [Moe 1984: 763]. A self-seeking principal will equally avoid corruption among agents, simply because any self-enrichment by the bureaucracy takes away from the resources the principal considers to be its own. Also, such a government cannot gain from allowing sub-standard quality in public procurement. Either it prefers to embezzle the required funding right away, or it hopes for future economic (corrupt) gains resulting from an improved public infrastructure — which then has to be of good quality. X-inefficiency among the bureaucracy will not be condoned, [Posner 1974: 337-9]. It appears unlikely that favoring unqualified contractors in tendering procedures is helpful to such a regime. Lobbyists will not be allowed to waste resources and time in an attempt to influence the principal. Also distorting regulation may not be an issue for self-

[18] Githongo [1997] provides evidence that the Kenyan press was largely free to report on corruption but that its impact was so minor that the government was basically indifferent to widespread revelations of high-level corruption.

seeking governments. McChesney [1997: 153-55] argues that such regimes strive for extortionary income but are able to levy the burden equally on all private parties. Governments threaten inefficient regulation, but these are avoided by payments from private parties. Due to this negotiating process, inefficient regulation is commonly avoided. A strong principal will also prevent individual departments from "overgrazing" the market. Clearly, this requires a corrupt government to be particularly strong. This type of a system is commonly termed a "kleptocracy" and the ruler can be called a "stationary bandit". While such a government is in a prime position to acquire large bribes, a negative effect on public welfare is not trivial to proclaim. Quite the contrary, McGuire and Olson [1996] argue that self-seeking rulers with complete coercive power have an incentive to exercise this power consistent with the interests of society. Such leaders will abstain from overgrazing the market by taxing excessively and they will provide public goods so as to increase future tax income.

Whether there exist reasonable limits on the taxes squeezed out by a predatory regime depends crucially on the elasticity of the tax base. Marcoullier and Young [1995] argue that this elasticity is rather low so that predatory regimes can always rake off more surplus by increasing the rate of taxation. This is why, from a historical perspective, predatory regimes tended to squeeze their citizens without pity. But this is an aspect which concerns distribution and does not allow for conclusions with regard to public welfare, as commonly defined by economists. Certainly, there are reasons why a predatory regime may fail to allocate resources efficiently. Even the most powerful kleptocrats have to share power with their subordinates and the resulting coordination problems may produce inefficient outcomes. Kleptocrats may have to assign property rights in exchange for peace with potential contestants, i.e. for buying off competing factions, and not to those who put it to the most productive uses, [North 1981: 28]. A flourishing economy may threaten a principal's power because it can provide potential competitors with resources to overthrow the ruler, [North 1993: 14]. Inefficiency may also result when a ruler has a short time horizon, [McGuire and Olson 1996]. Finally, given the ruler's precedent, lower levels in the hierarchy may be motivated to seek extra-legal income for themselves instead of being loyal to higher ranks, [Rose-Ackerman 1999: 114-7]. But many of these caveats will not hold if a stationary bandit is sufficiently strong. This type of strong and corrupt government might be utopian. But it nonetheless challenges the analysis because it may invite cynics to argue that corruption should not be fought but perfected. A corrupt ruler's power would not have to be challenged but rather increased to avoid its distorting consequences.

At first, the distributional consequences of corruption are likely to deteriorate. What people consider to be their property will instead often be transferred into foreign bank accounts. One need not be a moralist to utterly deplore this. But this study focuses on the consequences to public welfare, which are commonly separated from aspects of distribution. Therefore it becomes crucial to assess whether this type of self-enrichment of principals also goes hand in hand with inefficiencies. One argument along this line may be that citizens will attempt to circumvent the extortionary corruption of its principal. They will invest in techniques to conceal their income and to lower the contribution they must provide to the principal. While this type of tax evasion is not peculiar to a kleptocracy, the corruption of the principal can provide legitimacy to these actions and enhance civic anti-principal cooperation. Both sides may expend resources for improving their position; the citizenry to better evade taxation and the principal to increase its cut. As in the traditional rent-seeking approach, these expenditures do not increase general welfare and are wasteful, [Tullock 1971]. But the strongest argument in favor of inefficiencies existing as a concomitant of the self-enrichment of principals arises when considering that the strong, corrupt regime faces a credibility problem, a point to which we will turn now.

5.3 The Credibility Problem

The most crucial problem with a strong self-seeking principal is that it will not be able to commit itself to policies with any credibility. Such credibility issues have been dealt with in New Institutional Economics, [Wiggins 1991], [Klein, Crawford and Alchian 1978] and [Williamson 1985]. This analysis was fruitfully applied to the operation of political institutions, [North 1993: 14], [Weingast 1993].

Investments usually require sunk costs. Once sunk, such resources cannot easily be transferred or assigned to different tasks. Railroads cannot be removed, power plants cannot be relocated to different countries, and technical know-how cannot easily be used for other purposes. Thus, investors become locked into a particular usage of resources and, being limited in their power to protect their property against rival attacks, they must fear for the expropriation of their rents. Investors are particularly vulnerable where there is corruption because self-seeking rulers are not motivated to honor their commitments, nor are they sufficiently constrained to do so, [Ades and Di Tella 1997: 1026], [Murphy, Shleifer and Vishny 1993: 413] and [Mauro 1995].

The credibility problem resulting from corruption can already be observed with regard to lower level public servants. Corrupt tax collectors can impose excessive tax burdens on investors, corrupt regulators may threaten an arbitrary application of the law, corrupt customs authorities may control necessary trade and demand their cut and corrupt politicians may threaten an unfavorable application or drafting of the law. All these actors may be in a position to demand a bribe, while at the same time an investor has lost the outside option of withdrawing the investment decision, having already sunk too many irretrievable assets into the project. In a survey of business people in Karnataka, India, it was found that the software industry was less affected by the high level of corruption among the local administration. It was noted that compared to the construction and manufacturing industries these units could easily shift assets outside the state because this industry depends less on immovable assets. This lower dependency seems to have reduced extortionary demands for bribes among public officials and rendered aspects of credibility less pressing.[19]

Also private contractors are frequently in a position to behave opportunistically and profit from the sunk costs invested by someone else. They may renege on negotiated prices as soon as the counterpart has committed himself and lost the outside option. This behavior also occurs in the absence of corruption. In order to prevent this, private parties will try to write long-term contracts or seek some other type of institutional solution which is self-enforcing or allows for legal recourse. But corrupt courts will not necessarily enforce these contracts and may favor the party which offers the largest bribe. This implies that corruption also inhibits the enforcement of contracts between private parties, discouraging the sinking of resources into a project, [Acemoglu and Verdier 1998].

A similar argument can be brought forward with respect to accumulating savings. Savings require trust in a country's banking system. Corrupt governments may interfere in the banking sector and influence the granting of loans according to kinship, lobbying or outright bribery rather than merit. Such intervention can easily reduce the security of deposits, [Fons 1999]. Problems of poor credibility are likely to multiply when not only bureaucrats but whole governments are self-seeking. As argued by [North and Weingast 1989: 803-4]:

> "The more likely it is that the sovereign will alter property rights for his or her own benefit, the lower the expected returns from investment and the lower in turn the incentive to invest. For economic growth to occur the sovereign or govern-

[19] See The Hindu, 10.1.2000, "Investors see Red in Karnataka".

ment must not merely establish the relevant set or rights, but must make a credible commitment to them. A ruler can establish such commitment in two ways. One is by setting a precedent of 'responsible behavior,' appearing to be committed to a set of rules that he or she will consistently enforce. The second is by being constrained to obey a set of rules that do not permit leeway for violating commitments."

In order for commitments to be credible the respective person must be motivated or forced to honor them, [North 1993: 13]. But a corrupt ruler is devoted only to personal enrichment and lacks the motivation for honoring commitments, [Rose-Ackerman 1999: 118]. Corruption implies that a government is unscrupulous when it comes to taking advantage of arising opportunities. On the other hand, the utopian autocrat with full control faces no legal restrictions and can quickly overturn constitutional obstacles if this becomes favorable to his or her corrupt goals, eliminating any external constraints. This is particularly an issue for a strong corrupt government, which can replace legal rules at will by discretionary decisions. Thus, while such a government may be in a position to avoid some of the inefficiencies mentioned before, it has lost the option to commit itself to trustworthy policies. A government's strength helps in avoiding inefficiencies. But a government so strong can quickly confiscate the wealth of its citizens. Promises made obtain the character of bait, intended to attract investments. Given some rationality among investors, this attempt will fail.

Commitments by politicians can only be made credible by political institutions that limit the principal. A strong parliament can effectively limit the powers of kings or presidents and allow for credible political commitments, as was the case with the 1688 English revolution, limiting the Crown's legislative and judicial powers and disallowing a "confiscatory government", [North and Weingast 1989]. A strong high court can provide limitations to a principal and enforce previous political commitments, [Landes and Posner 1975]. Another of the many possibilities for restricting the power of principals is by delegating decisions to autonomous bureaucrats, [Furubotn and Richter 1998: 421]. The requirements within a principal-agent description would be to insulate agents from the principal's direct orders. Agents must be required to respect the law and not to follow the opportunistic interests of the principal. Independent agents may restrict the leverage of a self-seeking principal to create a perfect system of bribery. The limitations placed upon the principal also restrict its capacity to impose the costs of its self-seeking equally and efficiently. This is the reason why sectors will differ in their propensity to provide income to the principal. The allocation favored by the principal is therefore likely to differ from that favored by society, because the limitations it faces in some cases cause it to prefer those sectors or business deals where it is less restricted in exacting a payment. This in turn brings about the allocative inefficiencies described above.

One may conjecture that adverse effects on public welfare can temporarily be eliminated when a kleptocrat finds a credible means of sharing power with bribe-paying investors. This may be what Wedeman [1997] has in mind when he argues that the “rent-sharing” type of corruption that he observes in South Korea has been less detrimental to development than the “looting” type that prevailed in former Zaire. Indeed, if such means of sharing power can be found, this type of corruption may provide fertile ground for large-scale investments. But unless some benevolence exists among the principal, conditions for less powerful investors and innovators may even further deteriorate due to the strong position of a leading industry that then acts as an insider, [Murphy, Shleifer and Vishny 1993: 413]. Above that, allocative inefficiency is likely to be re-introduced as principals become dependent on powerful groups within society.

6. Conclusions

This study provided a link between an analysis of public welfare and an investigation of corruption. Society will commonly dislike the distributional consequences of corruption, but aspects of economic efficiency and welfare are more complicated. Losses do not occur because money changes hands but because corruption renders a principal unwilling or incapable of increasing public welfare. If the principal is benevolent but limited in its power, corruption among agents inhibits mutually beneficial exchange. Those contracts which require the absence of corruption cannot be sealed. If the principal is indifferent to the general welfare, self-seeking among agents is aggravated and X-inefficiency will occur. If the principal itself is self-seeking, its favors will be sold for a price and, since it acts as a monopolist, allocation will be inefficient. Some losses of public welfare can be avoided if a kleptocrat has the power to design a perfect bribery system that operates like a tax. Such a principal must be capable of setting aside constitutional and legal restrictions. On the other hand, the principal needs such restrictions to make believable commitments to long-term policies. The private sector will not risk sinking resources where corrupt governments do not commit themselves to honoring and defending property rights. Potential investors will justifiably fear opportunism and governments will be unable to attract investors and private capital. In sum, adverse effects of corruption on public welfare cannot be avoided. Either governments decisions, including those of principals and agents, will be distorted, or due to lacking credibility those of the private sector will suffer. For example, avoiding distorting decisions by limiting the influence of agents may reduce the potential of self-seeking governments to credibly commit themselves. On the other hand, delegation of authority to agents can improve credibility but opportunities for side-payments to agents are likely to increase and distort decisions. Unless corruption is fought in its entirety, attempts to avoid any one of these consequences is likely to aggravate the other.

Corruption can be more of a problem among lower level bureaucrats with a government seeking to limit the adverse consequences. Another type of corruption emerges when both government and bureaucracy are partly engaging in corrupt activities and negotiate over the resulting proceeds. Still another type arises with a strong corrupt government. This study argues that in any of these cases corruption will lower public welfare. But the consequences are not the same for every type of corruption. Corruption among agents will cause an economy not to produce at its production possibility frontier. Self-seeking by the principal may result in allocative inefficiency, with the wrong projects chosen and distorted factor inputs.

The kleptocratic type of corruption will affect capital accumulation foremost.

The clear distinction between actors who are self-seeking and those who are benevolent but limited (or even naive) is helpful to the analysis. But in reality combinations of these types are most common. With respect to corruption in the American tariff system, this has already been well depicted by Meredith [1912: 96]. She criticizes a book in which

> "we meet only two kinds of protectionists – the *naïve* enthusiasts who really believe all they say, and the completely cynical who are merely out for the dollars. Now I venture to believe that neither of these men really exists. There can never have been a protectionist leader who believed all that he said: neither, I venture to assert, has there ever been one who was merely out for the dollars. These are the antitheses of the melodrama. Behind them there must lie the gradations, the variety, of real life."

Fruitful avenues for research might seek to empirically assess to what extent differences in types of corruption exist in reality — for example utilizing survey data on the performance of countries and comparing one country to another. Relating these results with countries' data on capital productivity and capital accumulation may provide a way of testing the hypothesis that different forms of corruption have different effects on public welfare.

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