

Corruption A Framework

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This paper breaks no new ground: it seeks instead to show that much that is sensible regarding the views and approaches to corruption can be learned from some recent, although apparently scattered, developments in microeconomics. In so doing, the paper hopes to provide a framework within which to fit the various pieces of economic theorizing about corruption that have appeared, including the literature on rent-seeking (Tullock 1967; Krueger 1984), the literature on regulation and mechanism design (Laffont and Tirole 1993), the work on transactions costs literature by Williamson (1975), and the literature spawned by Shleifer and Vishny (1993) on the industrial organization of corruption.

DEFINING CORRUPTION

THERE IS NO SINGLE DEFINITION OF CORRUPTION. AN EARLIER literature (e.g., Cariño 1986) presupposed legal norms and defined the matter primarily in terms of behavior that deviated from such norms. Posing the question this way, the main focus of attention becomes one of asking why there was a deviation between value systems, for example, between what people did and what the law required. This had the disadvantage, however, of leaving unanswered whether and to what extent the observance of either moral or legal norms produced useful social outcomes.¹ Much earlier, in *The Wealth of Nations* (Book 5, Chapter 2, Article 4), Adam Smith raised precisely this dilemma regarding the rationality of legal norms themselves when he described the smuggler in sympathetic moral terms as

a person who, though no doubt highly blamable for violating the laws of his country, is frequently incapable of violating those of

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natural justice, and would have been, in every respect, an excellent citizen had not the laws of his country made that a crime which nature never meant to be so.

More recently, economists have refocused attention on the economic effects of corruption by focusing on the economic nature of the transactions involved in corruption and recognizing it as an exchange motivated by self-interest. Shleifer and Vishny (1993) have defined corruption simply as 'the sale by government officials of government property for personal gain.' This definition may be broadened further to take into account nonpecuniary exchange not involving outright sale. Hence, Nye has proposed that corruption refer to 'behaviour which deviates from the formal duties of a public role because of private-regarding (personal, close, family, private clique) pecuniary or status gains; or violates rules against the exercise of certain types of private-regarding influence.'

CORRUPTION AND MONOPOLY

OFTEN corruption is presumed to be government's exclusive position: in virtually all important transactions involving corruption, government is the sole—or at least an important—procurer or provider. It is in the position of a monopsonist when it contracts for the construction of a bridge or a road from among many potential suppliers. On the other hand, it is in the position of a sole provider or monopolist when it accepts and evaluates income tax returns, grants business permits or renders judicial decisions.

The reasons that government is in this position are bound up with the very role of government itself. These may derive from efficiency considerations, such as the provision of public goods, the idiosyncratic nature of many government transactions, or the simple position of government as tax collector. Whatever its source, however, exclusivity confers monopolistic power upon government, which, standard theory tells us, provides the occasion for rents to be earned.²

How government should behave with respect to such potential rents depends on the purpose of governance. In the case of procurement, it is obviously in the government's interest to maximize the rents it can earn from its monopsony position, since the exercise of this power

leads to a lower cost of provision of public goods and services. On the other hand, if government is in the role of sole provider, it is generally not its purpose to exercise its full monopoly power. Think of what would occur, for example, if the government's aim were to sell applications for business permits for what the market would bear, or if, as in earlier times, judicial decisions were to be auctioned off to the highest bidder.

Problems arise if the disposition of these potential rents does not accord with the purposes of government, and it is at just this point that corruption becomes possible. Hence, for example, if a procurement contract is rigged to favor a party that is not the most cost-efficient supplier, then clearly some of the rents that ought to have accrued to government were captured by others, namely, the corrupt official and the private contractor, so that the imperative of maximizing the monopoly rents is not obeyed. Analogously, if the public purpose is best served by refraining from maximizing the government's rent as a sole provider, then clearly the purpose would not be served if the dispenser of the service chose to exercise the monopoly wholly or in part, and pocketed the resulting rents.

From an economic viewpoint, therefore, it seems proper to define corruption as the private disposal of potential rents due to government. This is broad enough to include instances when rents that

ought to be collected are not, or when rents that are to be given away are not. In all events, however, corruption is associated with rents, and rents with the government's exclusive or monopoly position.

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CORRUPTION AS A PRINCIPAL-AGENT PROBLEM

THIS definition has the benefit of being general enough to require no explicit reference to legal norms. It is also an economic definition that is a clear invitation to cast the problem of corruption in the mold of the well-known principal-agent (henceforth, PA) problem in economies (see, for example, Arrow 1986). The PA problem refers to a situation where one party (the 'agent') is contracted to promote an outcome in behalf of someone else, namely, the 'principal'. The agent's action, however,

potentially affects not only the principal's action but also his own interest. When the agent's action cannot be directly observed by the principal, or where the outcome is affected not only by the agent's action, the problem arises for the principal of how to ensure that the agent takes the appropriate action to promote the principal's interest. In the case of corruption, the principal is the government and its aim is to distribute the rents accruing to it in a certain manner. This function, however, is devolved to bureaucrats and politicians (or to private individuals such as concessionaires) who may act in their own interest. Because the agent's action is only imperfectly observed, the government cannot always be sure that its agents are always acting in its behalf.

The PA problem proper is one of designing a mechanism (say, in the form of a fee or compensation-schedule) that elicits the appropriate voluntary response from agents that yields the best result from the principal's view.³ Put this way, it becomes curious that of the many types of fee schedules, most current systems of government rely on only one, namely, the wage-employment relationship, according to which bureaucrats (and politicians) are in effect paid a straight fee to secure their participation,⁴ possibly with corresponding (dire) punishments for failure to deliver.

It has since become well known in the PA literature that such a fee-scheme works only if output is directly observable, or the agent's actions can be monitored, or both the principal and the agent are neutral with respect to risk. Otherwise, the scheme is liable to lead either to shirking (if neither output nor input are easily observed), or imposes on the agent an undue share of the risk (if the agent is in fact risk-averse). To insist on making this mechanism work in all cases implies large investments in monitoring, which become evident with the increasing costs associated with the establishment and operation of various audit, investigation and prosecution bodies, as well as costs of court litigation. Furthermore, the more difficult and unlikely detection is, the harsher the punishments need to be,⁵ leading to undue risks being borne by the agent. This may reach absurd proportions, such as when the death penalty or life imprisonment is imposed on even petty bureaucratic crimes, leading to questions regarding the credibility of such threats. Finally, the possibility must also be raised that even the fixed-fee im-

plied in this scheme is not at a level sufficient to fulfill the participation constraint, a circumstance that highlights the low level of compensation of bureaucrats.

The main message of the PA approach is to point to the possibility and appropriateness of other mechanisms. For example, some variety of *linear-free* schemes, similar to share tenancy, may both distribute risk and maintain incentives for performance by basing payment on observable indices of performance. A version of this has actually been attempted in the fee-sharing arrangement between the Metro Manila Development Authority and their agents (traffic enforcers and traffic towing). Another broad possibility is a fee-scheme where it is the agent that pays a fixed fee to the principal. Under this arrangement, high powered incentives exist for the agent to perform, since it is the residual claimant, although the arrangement presumes a capacity for risk-bearing. Recent examples of these include the privatization of the provision of certain public services that generate revenue, such as resorting to private concessionaires in the case of metropolitan water and sewerage or, much earlier, the 'tax farms' in France under Colbert. Where no revenues or appropriable rents are involved, sequential contracting is a close alternative to direct provision by paid employees, under which the principal (here, the government) pays the contractor a fixed fee, with the difference that the tenure or the stability of employment is not guaranteed. Here the incentive problem is solved by more explicit competition in a pool of potential agents. None of these alternatives is perfect: schemes with higher-powered performance incentives may cause agents to perform overzealously with adverse consequences for the constituencies to be served (e.g., bounty-hunting and false accusations). However, it must be recognized that practice and experiment have lagged far behind theory in this respect.

CORRUPTION AS TAX OR TRANSFER

AN early and somewhat surprising recognition of corruption in the economics literature says that the corruption label by itself—i.e., without further qualification—says nothing about efficiency. In essence, corruption is a transfer, from the government—or its intended beneficiaries—to the private parties involved in corruption. This is not to say

that corruption has no economic impact: in diverting the benefits from the government or its beneficiaries to private interests, corruption undoubtedly frustrates society's goals of distributional equity. (Some of these effects are discussed further below.) Without further qualification, however, it cannot be said to affect economic efficiency.

Indeed, subject to some important distinctions to be discussed, corruption is similar to a tax or fine (more exactly a tax-*cum*-transfer) from the viewpoint of those affected by it. This is easily seen in the behavior of corrupt police officers or traffic-rule enforcers who arrest

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erring drivers but who demand immediate payoffs for themselves rather than remitting these to the government. Whether in fact the officer remits the money to the government is a matter of indifference in the substantive efficiency imperative of discouraging errant driving behavior. From this aspect, therefore, the effect of corruption is identical to that of a tax. Indeed, some earlier authors (e.g., Leff 1964) argued that corruption might indeed serve the purpose of facilitating

transactions by (automatically as it were) underwriting efficiency wages for poorly paid government employees.

However, while this observation that corruption is similar to taxation is insightful, it is partial at best. There are in fact several differences between taxes and corruption in their effects on efficiency. First, to the extent that taxes are deemed to induce socially desirable behavior—for example, in terms of correcting externalities or providing for the optimal provision of public goods—a bribe to evade a tax or a fine necessarily dilutes the effect. This is because a bribe must always be less than the tax or fine it is meant to avoid.

A second difference is that not all corruption has the characteristic—which may be presumed about taxes—of seeking to address externalities or inequities. It is necessary to distinguish between rule-reinforcing and rule-undermining corruption.⁶ The case of corrupt traffic-rule enforcers is a clear example of the former.⁷ At the other end, cor-

ruption may weaken or undermine rules, such as when bidding rules are rigged to favor certain agents. Similarly, in the matter of public goods provision, it is obvious that a corrupt society will have less public goods than a society that collects taxes. It is clear that both societies will have unequal levels of efficiency, depending on how one perceives the desirable levels of spending between public and private goods.⁸

A third major difference between corruption and taxation has to do with certainty. Taxes and fines approach the competitive price mechanism in terms of their transparency and predictability. Bribes, on the other hand, are notoriously difficult to track and to predict. An important circumstance related to uncertainty is that most corruption-prone goods are idiosyncratic and therefore prone to monopolistic provision. The typical 'small numbers' problem involved presents an obstacle to arriving at any sort of 'equilibrium' bribe, especially for deals that are large but few and far between. (This difference is noticeably less in petty bureaucratic corruption in front-line offices where contact with large numbers of people permits a 'going price' for grease money to be set.) The wider range of possible levels for bribes constitutes a greater uncertainty and may have efficiency effects through a discouragement of investment (see, for example, Campos, Lien and Pradhan 1997). From this aspect, it may be possible to distinguish between parametric corruption, which approaches taxation, and variable corruption, which is associated with greater uncertainty. Obviously the costs of parametric corruption would be less than those of variable corruption.

Finally, Shleifer and Vishny (1993) point to secrecy as a crucial difference between corruption and taxes. The appropriability of corruption—and not taxes—may so distort the incentives of bureaucrats and politicians that they artificially divert activities into areas that permit more corruption, and away from those in which there is less. The choice of pork-barrel projects, for example, could be directed not primarily by social benefit-cost considerations but by the ease with which bribes may be 'earned', say through acquaintance with particular contractors.

RENT-SEEKING

STILL starting from the point that government disposes over large potential rents, it is a simple matter to deduce a demand-side for corrup-

tion. The literature on rent-seeking (for example, Tullock 1967; Krueger 1984, and the useful survey by Hillman) did not emphasize the inefficiency of corruption *per se*. Emphasis was laid on the character of corruption as a transfer; hence its neutrality on efficiency grounds. What has attracted attention is that resources are used up in seeking to secure rents, i.e., 'rent-seeking'. It was recognized earlier on that rent-seeking activities were 'directly unproductive' (Bhagwati's phrase) and dissipated, and the resulting diversion of significant resources from productive activities represented an economic loss and caused inefficiency. It could be shown that if rent-seeking was 'competitive'—that is, marked by free entry—the resources in rent-seeking could reach such absurd proportions that they would even exceed the potential rents to be had.

Here, then, is another real economic cost of corruption. The theorists of rent-seeking were concerned to show the need to avoid policies that attracted rent-seeking activities (e.g., quotas, monopolies, etc.) which were also those that resulted in corruption. In fact, they proved much more. It is not sufficiently pointed out, however, that the applicability of the rent-seeking critique extends beyond corruption *per se*. After all, similarly valuable lobbying resources can be used even in non-corrupt activities, such as in lobbying with the legislature, which is normally thought to be a part of the normal workings of democracy. Furthermore, it was early on recognized as a corollary that there could be corruption without waste if only rent-seeking were avoided. For example, suppose the rights to becoming a perfectly discriminating monopolist were simply assigned by a corrupt official to a preferred private property rather than being the object of any lobbying. This would certainly qualify as corruption. Yet it can be shown that there would be no resulting economic waste. This shows that corruption is neither necessary nor sufficient for rent-seeking inefficiencies to occur. The insights from the competitive rent-seeking literature, however, were influential in laying the foundations for investigations into political systems and the industrial organization of corruption.

THE INDUSTRIAL ORGANIZATION OF CORRUPTION

THE insight regarding the differential effects of assignment of rents versus competition for rents permits its narrower application to corrup-

tion *per se*. Shleifer and Vishny (1993) in essence applied the same technical principle more narrowly to corruption to answer the question of whether it is better to have corruption that is centralized or decentralized. The answer is not clear-cut. The worst case is that of 'independent monopolists', where power is jointly vested in separate agencies or institutions whose unanimous approval is required to obtain a good or service. This leads to the same problem as the 'tragedy of the commons', as each of the corrupt parties seeks to obtain the most for itself, heedless of what the others have already extracted. The result is that the total bribes are bid up, to the detriment of efficiency.

Somewhat less inefficient is the case of centralized corruption, as in monarchies and dictatorships (Marcos is mentioned, in particular), where 'it is always clear who needs to be bribed and by how much. The bribe is then divided between all the relevant government bureaucrats, who agree not to demand further bribes from the buyer of the package of government goods' (Shleifer and Vishny 1993).

Least wasteful, finally, is the case of competitive corruption, where two or more agencies are empowered to provide the same service. The intuitive reason is that competition from differing agencies bids down the going rate of bribes. This last is certainly a valuable insight in the case of transactions that are often repeated (e.g., vehicle registration), but it is obviously of little help in unique transactions, such as large idiosyncratic asset sales, which by their nature necessitate final (and therefore either single monopolistic or sequential monopolistic) decisions.

ECONOMISTS' VIEW OF CORRUPTION

THE way economists think about corruption will seem strange to many people, especially to those who are accustomed to viewing the matter primarily as a moral question. Corruption after all may be regarded as theft, plain and simple, and is therefore categorically objectionable without further qualification. If this were the case, a discussion of the 'economic effects' of corruption would be futile, since whether or not these effects were benign or pernicious would be irrelevant to one's judgement, which is that corruption is never and nowhere to be tolerated.

It therefore comes as a surprise for some to hear reputable economists express the somewhat agnostic view that 'the theoretical effect of

corruption is unclear; in some cases, the economy would operate more efficiently if governmental rules can be readily overcome by cash payments' (Barro and Sala-i-Martin 1995). Such statements seem to leave room for the possibility that corruption may not be so bad and perhaps may even be desirable in certain circumstances. An early example of this, already cited, was the agnostic view of mainstream economists since

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It also surprises many that in assessing the effects of corruption, economists worry less about the size of the payoffs involved and more about the manner by which they occur and how they affect other people's behavior. This is in contrast to the lay person's view of the matter, which regards it as self-evident that larger payoffs imply larger consequences. In other words, economists think size is less important than technique.

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CROSS-COUNTRY STUDIES

SEVERAL empirical studies in recent years (e.g., Barro 1991, Barro and Sala-i-Martin 1995, Mauro 1995, Mauro 1997 [cited in Rose-Ackerman 1997], Keefer and Knack 1995) have sought to measure whether and how much corruption affects overall economic performance. In the typical study, some index of corruption is first devised. This is imperfect, since it typically relies on judgement among business people or business consultancy groups of how frequently corruption was required in business transactions in particular countries. This index, in combination with other economic and institutional variables, is then regressed against economic growth or the share of investment in gross domestic product (GDP) for a group of countries. Many of these studies are at best provisional, partly because of epistemological objections about whether countries with such

differing histories can be usefully compared. Despite the tentative nature of these studies, however, it is significant that most of them lend support to the hypothesis that higher levels of corruption do affect growth negatively by reducing the share of investment in GDP. A recent study reports that an improvement of one standard deviation in the corruption index could raise the investment share in GDP by four percentage points and raise growth rate of income per head by more than 0.5 percent annually. For a number of reasons, this is likely to be an underestimate of the toll corruption exacts on the growth rate.

Perhaps significantly for policy, however, these cross-country studies also suggest that the effects of corruption are concomitant with and difficult to separate from other institutional problems such as the rule of law, low quality of the bureaucracy, the risk of expropriation, the risk of contract repudiation by the government (Barro and Sala-i-Martin 1995; Keefer and Knack 1995), or spending on education (Rose-Ackerman 1997 citing Mauro). This suggests that corruption is part of a complex of problems. Of course, this also raises the important question of whether corruption can be treated or resolved in isolation.

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DIRECT EFFECTS ON EFFICIENCY

THE first and most well-understood economic cost of corruption is the reduction of direct benefits from a project or an existing rule. Corruption eats into provisions for a project and directly reduces the benefits to be had from it. Economics tells us there is no free lunch, so that the bribe paid by, say, a road-contractor to a corrupt official is bound to be reflected in poorer quality of service from the project. Among other things, the effect of corruption on road projects is visible when one compares the difference in lifetimes between roads built by foreign construction companies and those built by domestic companies who have had to pay hidden costs.

Alternatively, the effect may show up in the form of higher costs to the intended project beneficiaries. Take build-and-transfer projects as an example. A bribe raises the money that the proponent needs to raise. However, if the level and quality of service has been pre-specified, then the only way to recoup the increased cost is to raise the price of the service. Again, this effectively reduces the gains to the intended project beneficiaries.⁹ The effect is the same if an unqualified or less qualified bidder wins.

In the case of regulation, corruption in order to evade rules (e.g., traffic rules, taxes, environmental rules) can result in a less than optimal regulation of behavior. To be sure, the payment of a bribe may approximate the payment of a tax or a fine for violating a rule. Hence, it is argued, the bribe paid to a policeman has the same effect as a fine for drivers to refrain from violating certain rules. However, if one proceeds by assuming that the level of the tax or fine is optimal, then a bribe is at most a second-best alternative, since the bribe will always be less than the fine. Of course, if the fine is in fact oppressive, then a bribe would have superior economic effects.

The effects of complicity in income-tax evasion are similar. To the extent that taxes support the provision of the right amounts of public goods and services, nonpayment reduces the benefits to be had from these. The bribe paid to the corrupt revenue or customs official of course represents a transfer and a private gain and will support the provision of private goods. Hypothetically, however, the value of the private good thus produced is less in the social estimate than the public good the tax revenue would have bought. To illustrate, if paid as taxes 3.5 million pesos would have supported the schooling of a thousand elementary pupils for a year, while if paid as a bribe it would have been used to purchase a Range Rover. Then a social loss is patently involved.

On the other hand, it is just as possible for the shoe to be on the other foot. Suppose 200 million pesos if paid as taxes would be spent to construct some public edifice for sheer display, such as Imelda's film palace. If the private person had evaded the tax through a bribe, she would have been able to build a factory employing (rather than killing) 100 workers. In this case the judgement of tax evasion would be

quite different. None of this is new. All it says is that the unjust laws of an unjust regime carry no moral weight.

In general, however, corruption results in underproduction of public goods and perhaps an overprovision of public bads, whether this be in the nature of investment or consumption goods. The less prominent government is in the economy, the more harmful public sector corruption is likely to be, since in those circumstances the scarcity and need for publicly provided goods are likely to be all the greater. In contrast, it may be argued that the adverse effects of corruption are likely to be less in economies that are already overregulated and overtaxed to begin with, and where government has an oppressive role. In cases where government regulations and impositions are so excessive as to seriously stifle private initiative, corruption may act as 'grease' and introduce relief and flexibility into an otherwise rigid system. Under an oppressive dictatorship, in fact, one would hope that officials can be bribed. Such systems would be better with corruption than without it, although admittedly only as an extreme (*n*th best) compromise; first-best would be to radically reform such regimes.

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DISTORTION OF INVESTMENT PRIORITIES

QUITE apart from the direct effects of corruption on a project's benefits, another type of cost is the distortion of investment priorities that corruption brings. Over a wide range, projects may be chosen less for their inherent advantages to the government or to the public and more for the opportunities for corruption that they bring. Thus, for example, some studies have noted that corrupt regimes tend to spend less on education than on physical infrastructure, simply because the opportunities for corruption in the latter are greater than in the former.

The same problem is involved in the controversial 'pork-barrel' funds. One must wonder to what extent the choice of projects by certain legislators is influenced by the existence of friendly contractors who

are willing to implement the projects paying the usual commissions. There was once a member of the House of Representatives who used his pork-barrel funds primarily to construct waiting sheds and roadhumps in his particular district—hardly the most productive use of such funds. The same thing may be said of that favorite rural project:

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the all-purpose pavement *cum palay*-drying area. In some rural areas, one is struck by the intermittent appearance of concrete pavement stretching for about 100 metres in the middle of a road that otherwise consists of nothing but caked mud.

Aside from the fragmentation and lack of coordination of investment decisions, a bias that corruption may introduce is for spending on items that are ephemeral, consumable or difficult to verify. Such items become attractive owing to the very illegality of the corrupt transaction and the desire to conceal its consequences. Dredging rivers, for example, becomes more attractive than it should be, since quality and compliance are difficult to detect. The contractor may always cite the state of the environment rather than his own action as the reason for sub-optimal results; he may contend that riverbank residents have misbehaved and silt has piled up since the contractor last performed his job (actually making another contract necessary). Probably the largest scale this has reached is the Pinatubo lahar-dredging project. For the same reason, other public works projects involving the burying of drainage pipes or transactions involving consumables such as office supplies prove more attractive than they otherwise should.

Corruption may also introduce a bias in favor of projects that are quickly implemented. This might be especially true if some incumbent official faces replacement and needs to make hay while the sun shines. It is partly for this reason that one sees a flurry of quick-disbursing projects the year before elections. This may serve two purposes: first, the spending may sit well with the constituents, and second, the project may carry bribes and commissions that add to the campaign kitty.

In all these instances, the criteria used to arrive at the choice of these projects certainly cannot have been that of maximizing aggregate returns to the economy. The root of the problem is that the corrupt official's opportunities for obtaining commissions are generally disperse and idiosyncratic and correlate only imperfectly with the distribution of maximal returns to the economy. The aggregate effect of this is to influence the choice away from the optimal investment portfolio for the economy and to reduce the efficiency of every peso's worth of investment.

RENT-SEEKING LOSSES AND GAMES OF REALLOCATION

ANOTHER type of economic cost associated with corruption is the diversion of productive resources away from directly productive activities toward those that seek to capture corruption rents instead. In economics, these are known as 'rent-seeking' activities. They include a good deal of political activity as well as the business of lobbying and parts of the business of litigation, public relations and various types of consulting, even economic consulting.

Filipinos smile at the phrase 'politics is a national pastime'. What many fail to realize is that sometimes pastimes are actually very expensive. Rent-seeking activities use up resources that would otherwise be used in productive activities. Thus, for example, otherwise perfectly good movie actors, directors and publicists are drawn to politics instead of honing their craft. People who would otherwise have become serious industrialists and innovators now sit around in hotel lobbies and restaurants cutting deals with bureaucrats and politicians. Would-be scientists and engineers instead become publicists, lawyers and economists. The reason is simply that more money is to be made by redistributing wealth through the political process than by actually producing wealth.

They found that a higher share of scientists and engineers on average influenced growth positively and significantly, while a higher share of lawyers had a negative and significant effect on growth.

Many years ago, Shleifer and Murphy tested the influences that impinged on the growth of a cross-section of countries. Among the

variables they tested were the share of scientists and engineers to total graduates, and the share of lawyers to total graduates. They found that a higher share of scientists and engineers on average influenced growth positively and significantly, while a higher share of lawyers had a negative and significant effect on growth. Obviously, the more extensive and lucrative corrupt deals become in society, the more attractive entering that profession becomes, and the more talent and effort are sucked away from the productive process. This diversion of resources and talent from productive to 'directly unproductive' ('dupe' in Bhagwati's terminology) activities is bound to be reflected ultimately in a lower rate of economic growth.

It is in a similar way that one can view the most recent attempts to change the Constitution, which have diverted and devoured huge amounts of national energies. The attempts to change political and economic provisions in the Constitution are part of a redistribution game, intended to change the rules. Of course, it is contended, the rules are wanting and cannot support future development. That is at best debatable. The point is that any attempt to change rules also uses up resources, which would otherwise have been spent on production. Rather than spend time producing and creating, people have been drawn into a controversy that eats up their talents, resources and energies. This is true even if the proposals were confined to economic provisions alone.

In this connection, one must mention that it is not only the talents of the corrupt that are wasted; also wasted are the talents and resources of those who would wish to prevent corruption. Part of the costs of a corrupt and inefficient government consists of the time of honest and morally outraged citizens provoked by its venality and insensitivity. Demonstrations, rallies, strikes, citizen watchdogs, volunteer groups, not to mention people's revolt—all of these entail the use of resources that would otherwise have been saved or used for directly productive purposes.

INVESTMENT DISINCENTIVES DUE TO UNCERTAINTY

A fourth economic effect of corruption is increased uncertainty for investment (Campos et al. 1996). In some ways, as discussed in a previous section, corruption-bribes function like a tax on investment. The big

difference is that a tax is completely transparent and predictable. By its very illegal nature, corruption introduces uncertainty: it cannot be completely pre-announced and made known. Secondly, since it typically involves transactions requiring the unique exercise of discretion on the part of the corrupt official, the price involved can be quite arbitrary. Unpredictability and arbitrariness are especially likely in cases involving unique, large and idiosyncratic deals (or what are called cases of 'grand corruption'), such as large unsolicited power projects, corporate buy-ins or buy-outs involving government corporations, and so on. In those cases, no 'going price' can be determined, simply because each deal is a case in itself. Prospective investors are then likely to hesitate before plunging in with their own large projects, since the size of the payoffs are unknown. In contrast, petty front-line corruption will increasingly take on the nature of a tax owing to the regularity of transactions.

Unpredictability and the level of bribes are also affected by whether corruption entails the cooperation of several corrupt agents. The worst case is where power is jointly vested in separate agencies or institutions, whose unanimous approval is required to obtain a good or service. Each of the corrupt parties then seeks to obtain the most for itself, heedless of what the others have already extracted. The result is that the total bribes are bid up, to the detriment of efficiency. An example of this is when payoffs have already been made to some parties in the executive branch to clear a deal, but then some parties in the legislative branch pose an obstruction (e.g., by conducting investigations), a technique known in local parlance as 'AC-DC'. Additional payments then need to be made to secure cooperation, raising the overall level of bribes.

This has led some authors to say that the case of centralized corruption (e.g., in monarchies and dictatorships) leads to somewhat less inefficiency, since 'it is always clear who needs to be bribed and by how much. The bribe is then divided between all the relevant government bureaucrats, who agree not to demand further bribes from the buyer of the package of government goods' (Shleifer and Vishny 1993). The analysis follows the discussion on industrial organization. In contrast, in the case of competitive corruption, where several agencies compete to offer the same service, the going rate of bribes is bid down, reducing the adverse effect on investment. This last is certainly a valuable insight in

the case of transactions that are often repeated (e.g., vehicle registration), but it is obviously of little help in unique transactions (e.g., large idiosyncratic asset sales) which by their nature necessitate final (and therefore either single monopolistic or sequential monopolistic) decisions. The importance of this observation, obviously, is limited in cases of 'grand corruption', where almost by definition, authority cannot be fully decentralized to a large number of agents, owing to the idiosyncratic nature of such investments.

THE EROSION OF INSTITUTIONS

ULTIMATELY the most profound social cost of corruption is probably the most difficult to measure. It is possible, as has been done above, to cite instances when corruption does less or little harm. Among others, this occurs when corruption aids in evading laws or rules that are unwise to begin with, or where a bribe becomes very close to being a fine. This instrumental or functional view of corruption, which has undoubtedly proven fruitful, regards it according to its effects.

It is a characteristic of corruption, however, that it is unlikely to make a distinction between 'good' and 'bad' rules. The returns to corruption depend, after all, not on the character of the rules themselves but on the possibility that rules of any kind can be evaded. It is in this latter sense that the ethical or moral approach that an earlier literature emphasized cannot be dispensed with. That is, an inherent value attaches to adhering to norms or institutions,¹⁰ quite apart from a question of their *ultima ratio*, since in a situation where these are questioned the uniformity and reliability of rules themselves may come under threat.

What the new literature has done is to elucidate the economic consequences of regimes where norms and institutions are widely disregarded, such as when contracts become unenforceable and property rights are only vaguely defined. Douglass North has argued persuasively, for example, that the clear definition of property rights was a key factor in the growth of Europe coming out of the Middle Ages. Clearly, when the question is posed this way, the effect of corruption on development may possibly—though not always—extend beyond the taxonomy of its role in facilitating or hindering particular transactions and

come to include its wider impact on the indispensable web of institutions that govern economy and society.

NOTES

1. Even then a 'revisionist' view existed, which raised just this question.

2. From a purely legal viewpoint, it is of course possible to think of situations where corruption exists even where government provides goods and services competitively, e.g., services were sold at no more than what a competitive private firm would charge, but agents divert part or all of the proceeds for their benefit. But this would imply either that without corruption, factors were paid less than their normal return (an unsustainable affair), or that the government provides the service at higher than marginal cost but subsidizes the excess over the competitive price. The latter it can of course do indefinitely only because of its coercive powers of taxation.

3. Suppose therefore the agent's action a yields a result x for the principal. Then the principal's problem is to propose a fee-schedule $s(a)$, so that the principal's net benefits $U(x(a), s(a))$ are maximized, while observing that the agent's resulting net-benefits $V(s(a), a)$ do not fall below a certain minimum reservation level or participation constraint V^0 .

4. In terms of the previous endnote, this reduces to $s(a) = c$, a constant, which fulfills the agent's participation constraint. The principal's net benefits from this are then supposed to be $U(x(a), c)$. Obviously, if a or x were observable, then $x(a^*)$ could be found that maximized U for a given c^* such that $V(c^*, a^*) > V^0$, with $s(a^*) = c^*$, and $s(a) = 0$ for all $a = a^*$.

5. This is a simple matter of raising the expected costs of shirking, defined as the probability of detection multiplied by the level of the penalty. For a low probability of detection, the penalty level must correspondingly be increased.

6. This terminology is owed to R. Fabella.

7. The question of whether penalties or deterrents set under corruption are always likely to be somewhat less than under simple fines and taxes is not straightforward. On the one hand, corruption agents would tend to shade the legal fines and penalties, partly to compete, and partly to offset the second party's disutility in engaging in an illegal act. While it is clear that the monetary penalties are likely to be less, it is unclear whether the second party's total utility is much higher when assenting to a bribe than not.

8. Some would argue that corruption is better to the extent that it places in private hands those resources that would otherwise be spent by the government, with the judgement that private decisions are likely

to be more efficient than public ones and therefore more efficiency-enhancing.

9. Let K be the present investment required for a proposed project without corruption and $(p-c)/r$ be the present value of the returns, where p is the price, c is the cost, and r is the discount rate. At the minimum, the project is worthwhile if $K = (p-c)/r$. Particular levels of K , c , and r determine p . Corruption, however, raises the investment required by the amount of the bribe b , so that $K+b$ is the new level of present investment, now with $K+b > (p-c)/r$, making the project unviable under the old parameters. Viability is restored either with lower c , higher p , or both. This prejudices the consumers, whose benefits rise as c rises, as p falls, or both.

10. North defines institutions as the 'rules of the game of a society' which 'provide the framework of incentives that shape economic, political, and social organization.' They are composed of formal laws, informal constraints, and the effectiveness of their enforcement.

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