Corruption Around the World

Causes, Consequences, Scope, and Cures

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Corruption is attracting a lot of attention around the world. This paper surveys and discusses issues related to the causes, consequences, and scope of corruption, and possible corrective actions. It emphasizes the costs of corruption in terms of economic growth. It also emphasizes that the fight against corruption may not be cheap and cannot be independent from the reform of the state. If certain reforms are not made, corruption is likely to continue to be a problem regardless of actions directly aimed at curtailing it. [JEL E62, H1, H3, K4, N4]

I. The Growth of Corruption

In RECENT YEARS, and especially in the 1990s, a phenomenon broadly referred to as corruption has attracted a great deal of attention. In countries developed and developing, large or small, market-oriented or otherwise, governments have fallen because of accusations of corruption, prominent politicians (including presidents of countries and prime ministers) have lost their official positions, and, in some cases, whole political classes have been replaced. For examples, see Johnston (1997).

Corruption is not a new phenomenon. Two thousand years ago, Kautilya, the prime minister of an Indian kingdom, had already written a book, *Arthashastra*, discussing it. Seven centuries ago, Dante placed bribers in the deepest parts of Hell, reflecting the medieval distaste for

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corrupt behavior. Shakespeare gave corruption a prominent role in some of his plays; and the American Constitution made bribery and treason the two explicitly mentioned crimes that could justify the impeachment of a U.S. president. However, the degree of attention paid to corruption in recent years is unprecedented. For example, in its end-of-year editorial on December 31, 1995, *The Financial Times* characterized 1995 as the year of corruption. The following three years could have earned the same title. The writing of books on corruption has become a growth industry in various countries.

The degree of attention now paid to corruption leads naturally to the question of why. Why so much attention now? Is it because there is more corruption than in the past? Or is it because more attention is being paid to a phenomenon that had always existed but had been largely, though not completely, ignored? The answer is not obvious, and there are no reliable statistics that would make possible a definitive answer.

Several arguments can be advanced that suggest that corruption is simply attracting more attention now than in the past.

First, the end of the Cold War has stopped the political hypocrisy that had made the decision makers in some industrial countries ignore the political corruption that existed in particular countries, such as Zaïre (now the Democratic Republic of the Congo). As long as the latter were in the right political camp, there was a tendency to overlook obvious cases of high-level corruption.

Second, perhaps because of lack of information, or reluctance to talk about it by those familiar with these countries, there was also a tendency not to focus on corruption in the centrally planned economies.² It is now widely known that centrally planned economies, such as the Soviet Union, or those imitating them through highly regimented economic activities, such as Nicaragua and Tanzania, experienced a great deal of corrupt practices. However, these practices were either ignored or not widely reported at the time. Donor countries also tended to play down this problem in countries that they assisted financially, even in the face of misuse or misappropriation of foreign aid.

Third, the increase in recent years in the number of countries with democratic governments and free and active media has created an environment in which discussion of corruption is no longer a taboo. In some countries, such as Russia, the media has responded with a vengeance to

¹See Noonan, Jr., (1984) for a very interesting historical overview of corruption in different societies.

² However, much information was available on the corruption in centrally planned economies. See, for example, Simis (1982), Galasi and Gertesi (1987), Grossman (1982), and Remnick (1994).

this newly acquired freedom.³ In some other countries, political changes have increased the reporting of cases of corruption. See Davigo (1998).

Fourth, in all its ramifications, globalization has brought individuals from countries with little corruption into frequent contact with those from countries where corruption is endemic. These contacts have increased the international attention paid to corruption, especially when some companies believed that they were cut out of some contracts because the winning company had paid a bribe.

Fifth, a growing role has been played by nongovernmental organizations, such as Transparency International, in publicizing the problems of corruption and in trying to create anticorruption movements in many countries. Recently the international financial institutions, such as the IMF and the World Bank, and other international organizations have been playing a growing role in the anticorruption movement. In addition, empirical studies of corruption have contributed to a greater awareness of the economic costs of this problem.

Sixth, the greater reliance on the market for economic decisions and the increased need to be competitive have created an environment in which the pursuit of efficiency has acquired greater importance and distortions attributed to corruption attract more attention.

Finally, the role played by the United States, especially through its influence in some international institutions, has been important. American policymakers have argued that American exporters have lost out in foreign deals because they have not been allowed by law to pay bribes to foreign officials. For American companies, the payment of bribes to foreign officials is a criminal act, and, of course, the bribes paid cannot be deducted as costs for tax purposes.⁴ This has not been the case in other OECD countries, although recently, under the sponsorship of the OECD, the situation has started to change. In several other countries, bribing a foreign official was not illegal and bribes paid could be considered a deductible business cost.

A case can also be made that the increased attention now paid to corruption reflects the growth of that phenomenon in recent decades, a growth that culminated in a peak in corruption activities in the 1990s. Let me briefly consider a few arguments that support this alternative hypothesis.

³ An attempt by the author of this paper to create a corruption index on the basis of newspaper stories reported by the Internet found that for some countries these Internet entries amount to tens of thousands.

⁴ See, for example, the remarks by (then) Secretary of Commerce, Michael Kantor, to the Detroit Economic Club (July 25, 1996) in which he stated that since 1994 American companies had lost international contracts worth \$45 billion because of bribes paid by foreign contractors to the officials of foreign countries. See also Hines, Jr. (1995).

Recent studies have shown the extent to which the role of the government in the economy has grown in recent decades.⁵ The environment that prevailed in these years brought about (1) a large increase in the level of taxation in many countries; (2) a large increase in the level of public spending; and (3) probably, though not statistically ascertainable, a large increase in regulations and controls on economic activities on the part of governments. In recent decades, in a significant number of countries, many economic operations or activities have required various kinds of permits or authorizations on the part of, often, several public offices. This gave the bureaucrats charged with giving the authorizations the opportunity to request bribes or to accept offered bribes.

I would hypothesize that the impact that high taxes, a high level of spending, and new regulations have on acts of corruption is not immediate but, rather, a function of time, given the established norms of behavior. In a country with traditionally well-functioning and honest bureaucracy, the *short-term impact* of a larger government role on public officials will be limited. For some time, public officials will not be asked to perform corrupt acts and will reject bribery attempts, and they will not initiate such acts. In countries without such tradition, the more invasive role of government, played through higher taxes, higher public spending, and, especially, more widespread regulations, would have a more immediate impact on the behavior of civil servants and on corruption. This will be particularly true if fiscal policy suffers from lack of transparency in policymaking, fiscal reporting, and the assignment of responsibilities to public institutions. See Kopits and Craig (1998) and Tanzi (1998).

However, with the passing of time, and with increasing frequency, some government officials would be approached by bribers and asked to bend rules or even to break laws to obtain a government benefit or to avoid a government-imposed cost. Some will respond and will get compensation from the bribers for their actions. Others will start emulating them. The process is likely to be cumulative over time and resemble the spreading of a contagious disease. Acts of corruption that might have appeared shocking earlier will begin to look less shocking, and may even begin to be tolerated. The government may respond to this situation not by punishing the officials who bend or break the rules, but by reducing wages on the assumption that officials are getting extra compensation.⁷ It is easy to see where this process could lead to if not checked.

⁵ See, for example, Tanzi and Schuknecht (1997).

⁶These norms of behavior may be different between countries and are likely to change only slowly over time.

⁷This has actually happened in some countries vis-à-vis public employees working in particular areas such as customs administration.

Two other factors may have had an impact on corruption in recent years: the growth of international trade and business and the economic changes that have taken place in many countries and especially in the economies in transition.

The growth of international trade and business has created many situations in which the payment of bribes (often euphemistically called "commissions") may be highly beneficial to the companies that pay them by giving them access to profitable contracts over competitors. Large bribes have been reported to have been paid to get foreign contracts or to get privileged access to markets or to particular benefits such as tax incentives. Le Monde of March 17, 1995, reported that the bribes paid abroad by French companies in 1994 had been estimated at FF10 billion in a confidential government report. World Business of March 4, 1996, reported that the bribes paid abroad by German companies had been estimated to exceed US\$3 billion a year.8 These were not the only countries in which companies had paid bribes to foreign officials. Some experts have estimated that as much as 15 percent of the total money spent for weapons acquisition may be "commissions" that fill somebody's pockets. Here, again, contagion is important. When the economic operators of some countries begin to pay bribes, they put pressure on those from other countries to do the same. The cost of not doing so is lost contracts, as Kantor argued.

Among the economic changes that have taken place in recent years, privatization has been most closely linked with corruption. There is no question that public or state enterprises have been a major source of corruption and especially of political corruption because they have occasionally been used to finance the activities of political parties and to provide jobs to the clienteles of particular political groups. This was clearly the case in Italy, before tangentopoli,⁹ and in many Latin American countries. Privatization of nonnatural monopolies is necessary to reduce this form of corruption because it eliminates an instrument often used especially in political corruption. Unfortunately, the process of privatizing public or state enterprises has itself created situations whereby some individuals (ministers, high political officials) have the discretion to make the basic decisions while others (managers and other insiders) have information not available to outsiders so that they can use privatization to benefit themselves. These problems have been observed and reported in all regions of the world, but the abuses appear to have been particularly significant in the transition economies. 10 In the

⁸ Reported in Galtung (1997).

⁹ See Nordio (1997). Carlo Nordio was one of the leading judges in the Italian fight against political corruption. "Tangentopoli" or "bribe city" is the term that was given to the Italian corruption scandal that shook Italy.

¹⁰ See Kaufmann and Siegelbaum (1996) and Goldman (1997). For a review of the Latin American experience, see Manzetti and Blake (1997).

latter, terms such as asset stripping and *nomenklatura* privatization have been used to describe the abuses associated with the transfer of state enterprises to private ownership. In these countries some individuals have become enormously rich because of these abuses. Two examples from the Russian experience come to mind. In the privatization of large monopolies, such as Gazprom, many close to the corridors of power received highly valued shares at very low prices. And the "loans-for-share" scheme made some banks shareholders of enterprises by extending loans to the firms. These developments have made many Russian citizens highly skeptical about the virtues of a market economy.

Thus, several arguments lead to the conclusion that the current interest in corruption probably reflects an increase in the scope of the phenomenon over the years and not just a greater awareness of an age-old problem.

II. The Definition of Corruption

Corruption has been defined in many different ways, each lacking in some aspect. A few years ago, the question of definition absorbed a large proportion of the time spent on discussions of corruption at conferences and meetings. However, like an elephant, while it may be difficult to describe, corruption is generally not difficult to recognize when observed. In most cases, different observers would agree on whether a particular behavior connotes corruption. Unfortunately, the behavior is often difficult to observe because acts of corruption do not typically take place in broad daylight.

The most popular and simplest definition of corruption is that it is *the abuse of public power for private benefit*. This is the definition used by the World Bank. ¹¹ From this definition it should not be concluded that corruption cannot exist within private sector activities. Especially in large private enterprises, corruption clearly does exist, as for example in procurement or even in hiring. It also exists in private activities regulated by the government. ¹² Sometimes, the abuse of public power is not necessarily for one's private benefit but for the benefit of one's party, class, tribe, friends, family, and so on. In fact, in many countries some proceeds of corruption go to finance the activities of the political parties.

¹¹ A more neutral definition is that corruption is the intentional noncompliance with arm's length relationship aimed at deriving some advantage from this behavior for oneself or for related individuals. See Tanzi (1995a). For other definitions, see Theobald (1990).

¹² For example, when a taxi driver charges the passenger more than the regulated price or when a doctor in a hospital charges for services not rendered.

Not all acts of corruption result in the payment of bribes. For example, a public employee who claims to be sick but goes on vacation is abusing his public position for personal use. Thus, he is engaging in an act of corruption even though no bribe is paid. The president of a country who has an airport built in his small hometown is also engaging in an act of corruption that does not involve the payment of a bribe. 13

It is important to distinguish bribes from gifts. In many instances, bribes can be disguised as gifts. A bribe implies reciprocity while a gift should not. 14 However, even though the distinction is fundamental, it is at times difficult to make.¹⁵ At what point does a gift become a bribe? Does the distinction depend on the size of the gift? What about cultural differences that can explain different sizes of gifts? What if a large gift is given not to the person who provides the favor but to a relative of that person? Does the distinction depend on whether the gift is given in broad daylight, for everyone to see, or privately? Clearly, the identification of a bribe is not always

Acts of corruption can be classified in different categories. Corruption can be

- bureaucratic (or "petty") or political (or "grand"); for example, corruption by the bureaucracy or by the political leadership;
- cost-reducing (to the briber) or benefit enhancing;
- briber-initiated or bribee-initiated:
- coercive or collusive:
- centralized or decentralized;
- predictable or arbitrary; and
- involving cash payments or not.

Undoubtedly, other classifications could be added to this list.

III. Factors Contributing Directly to Corruption

Corruption is generally connected with the activities of the state and especially with the monopoly and discretionary power of the state. Therefore, as Gary Becker, Nobel Laureate in economics, pointed out in

¹³ It becomes difficult to draw a distinction between some forms of rent seeking and corruption. See Krueger (1974).

¹⁴ In practice, those who give gifts may expect some form of payment for them—for example, we expect love or good behavior from our children when we give them gifts—but the recipients of the gifts do not have an obligation to reciprocate.

15 For an elaboration of some of these points, see Tanzi (1995a).

one of his *Business Week* columns, if we abolish the state, we abolish corruption. But, of course, quite apart from the fact that corruption can exist in the private sector, a civilized society cannot function without a state, and in modern, advanced societies, the state must have many functions. The Becker argument seems to collide with the reality that some of the least corrupt countries in the world, such as Canada, Denmark, Finland, the Netherlands, and Sweden, have some of the largest public sectors, measured as shares of tax revenue or public spending in gross domestic product. Thus, the solution to the problem of corruption may not be as simple as just reducing the level of taxation or public spending. Rather, the way the state operates and carries out its functions is far more important than the size of public sector activity measured in the traditional way. ¹⁶ Particular aspects of governmental activities create a fertile ground for corruption. Let us look at this issue in more detail.

Regulations and Authorizations

In many countries, and especially in developing countries, the role of the state is often carried out through the use of numerous rules or regulations. In these countries, licenses, permits, and authorizations of various sorts are required to engage in many activities. Opening a shop and keeping it open, borrowing money, investing, driving a car, owning a car, building a house, engaging in foreign trade, obtaining foreign exchange, getting a passport, going abroad, and so on require specific documents or authorizations. Often several government offices must be contacted to authorize the activity.

The existence of these regulations and authorizations gives a kind of monopoly power to the officials who must authorize or inspect the activities. These officials may refuse the authorizations or may simply sit on a decision for months or even years. Thus, they can use their public power to extract bribes from those who need the authorizations or permits. In India, for example, the expression "licence raj" referred to the individual who sold the permits needed to engage in many forms of economic activities. In some countries, individuals become middlemen or facilitators for obtaining these permits. The fact that in some cases the regulations are nontransparent or are not even publicly available and that an authorization can be obtained only from a specific office or individual—that is, there is no competition in the granting of these authorizations—gives the

¹⁶ The state can exercise its role through various instruments. Some of these lend themselves more easily to acts of corruption. See Tanzi (1995a). For an empirical analysis that links market structure and rents to the level of corruption, see Ades and Di Tella (forthcoming).

bureaucrats a great amount of power and a good opportunity to extract bribes.¹⁷

The existence of these regulations generates the need for frequent contacts between citizens and bureaucrats. It also requires an enormous amount of time to be spent by the citizens in acquiring these permits and in dealing with public officials. Surveys from different countries and especially from developing and transition countries indicate that much of the time of the managers of enterprises, and especially of small enterprises, is spent dealing with public bureaucracies. This time that is taken away from managing the enterprises can be reduced through the payment of bribes.

Taxation

Taxes based on clear laws and not requiring contacts between taxpayers and tax inspectors are much less likely to lead to acts of corruption. However, when the following situations arise, corruption is likely to be a major problem in tax and customs administrations (see Tanzi, 1998):

- the laws are difficult to understand and can be interpreted differently so that taxpayers need assistance in complying with them;
- the payment of taxes requires frequent contacts between taxpayers and tax administrators;
- the wages of the tax administrators are low;
- acts of corruption on the part of the tax administrators are ignored, not easily discovered, or when discovered penalized only mildly;
- the administrative procedures (e.g., the criteria for the selection of taxpayers for audits) lack transparency and are not closely monitored within the tax or customs administrations;
- tax administrators have discretion over important decisions, such as those related to the provision of tax incentives, determination of tax liabilities, selection of audits, litigations, and so on; and
- more broadly, the controls from the state (the principal) on the agents charged with carrying out its functions are weak.¹⁸

¹⁷Some economists have argued that this kind of corruption can be eliminated by setting up several offices all authorized to provide the authorizations or permits. This would remove the monopoly power from the bureaucrats. See Shleifer and Vishny (1993). Unfortunately, the setting up of several offices may be costly. In some cases, particular activities (say, yearly inspections of cars) can be privatized.

¹⁸In cases of political corruption, those who represent the state (president, prime

¹⁸ In cases of political corruption, those who represent the state (president, prime minister, ministers) or their close relatives may use the tax and customs administrations to pursue rent seeking and corrupt practices.

In some countries, at one time, corruption became so endemic in the tax administration (e.g., Peru and Uganda) that the government decided to close down the existing administrations and to replace them by new ones. In several countries, customs administrations have been very corrupt, leading to the jailing of the director of customs and in several cases resulting in the replacement of the domestic customs organizations with the services of foreign companies engaged in preshipment inspections.

Reports from several countries indicate that the number of applicants for poorly paid jobs in administering taxes or in customs has been unusually large, pointing to the possibility that applicants know these jobs create opportunities for extra incomes.¹⁹

Spending Decisions

Corruption can also affect public expenditure. Corruption related to the provision by the government of goods at below-market prices is discussed below, but I will now discuss other aspects of public expenditure.

Investment projects have lent themselves to frequent acts of high-level corruption. Because of the discretion that some high-level public officials have over decisions regarding public investment projects, this type of public spending can become much distorted, both in size and in composition, by corruption.²⁰ Public projects have, at times, been carried out specifically to provide opportunities to some individuals or political groups to get "commissions" from those who are chosen to execute the projects. This has reduced the productivity of such expenditure and has resulted in projects that would not have been justified on objective criteria of investment selection such as cost-benefit analysis.

Procurement spending, that is, the purchase of goods and services on the part of the government, is another area affected by corruption. To reduce corruption possibilities, some countries have developed complex and costly procedures that may have reduced corruption at the cost of sharply increasing the prices at which some goods are purchased.²¹

Extrabudgetary accounts are common in many countries. Some of them have legitimacy and are set up for specific purposes (pension funds, road funds, etc.). Others are set up to reduce the political and administrative controls that are more likely to accompany spending that goes through the budget. In some countries, the money received from foreign

¹⁹ There have even been reports that in some countries these jobs can be bought.

²⁰ See Tanzi and Davoodi (1997).

²¹ The notorious \$600 hammers bought by the Pentagon could be explained by such procedures.

aid or from the sale of natural resources such as oil and tin is channeled toward special accounts that tend to be less transparent and less controlled than the money channeled through the budget. Some of this money may go into illegitimate uses or pockets.²²

In all these areas, lack of transparency and of effective institutional controls are the main factors leading to corruption.

Provision for Goods and Services at Below-Market Prices

In most countries, the government engages in the provision of goods, services, and resources at below-market prices—for example, foreign exchange, credit, electricity, water, public housing, some rationed goods, access to educational and health facilities, access to public land, and so on. Even access to some forms of pensions, such as those for disability, fall into this category because the individuals who get them have paid less in contributions to the pension funds over time than the pension they get once their disability status is approved. In some countries, disability pensions have been a fertile ground for corruption. In others, some individuals benefited enormously when they were able to get access to large amounts of credit or foreign exchange at below-market prices.

Sometimes, because of limited supply, rationing or queuing becomes unavoidable. Excess demand is created and decisions have to be made to apportion the limited supply. These decisions are often made by public employees. Those who want these goods (the users) would be willing to pay a bribe to get access (or a higher access) to what the government is providing. It is thus not surprising that in all the areas mentioned above, cases of corruption have been reported.

Other Discretionary Decisions

Besides the areas mentioned above, in many countries public officials can find themselves in positions where they have discretion over important decisions; in these situations, corruption, including high-level or political corruption, can play a major role. The most important of these discretionary decisions are as follows:

 provision of tax incentives against income taxes, value-added taxes, and foreign trade taxes, which may be worth millions of dollars in terms of

²² Because of the variation of the price of commodities even within a day, it may be difficult to ascertain at which price a transaction takes place. Some of the difference between the actual price and the declared price may be channeled into foreign accounts.

the present value of reduced future liabilities to those who benefit from them; 23

- decisions as to the particular use of private land (zoning laws) that determine whether a piece of land can be used only for agriculture, and thus have low market value, or for high-rise buildings, and thus be very expensive;
- decisions as to the use of government-owned land, for example, for logging purposes, which may also be worth a lot to the recipients. Major cases of corruption related to permissions to cut trees from publicly owned forests, or to exploit public lands for their mineral wealth, have been reported in several countries;
- decisions that authorize major foreign investments, often undertaken in connection with domestic interests, which often provide the privileged investors with monopoly power;
- decisions related to the sale of public sector assets, including the right to extract natural resources;
- decisions on the privatization of state-owned enterprises and on the conditions attached to that process, such as the degree of regulation of the industry; and
- decisions providing monopoly power to particular export, import, or domestic activities.

Decisions such as those described above are often worth a lot to individuals or enterprises. It is natural that attempts will be made by some of them to get favorable decisions, in some cases by paying bribes and in other cases by simply exploiting close personal relations with public officials. The bribes may be paid to public officials whose salaries may be very low and whose "temptation price" may be far less than the value of the potential benefit from a favorable decision to the bribers.

Financing of Parties

Some time before the tangentopoli scandal exploded in Italy, Minister Martelli, an important member of the socialist party, candidly admitted in a speech that the Italian political parties had on their payrolls a small army of employees. The salaries for these employees had to be paid. He implied that the needed money had to come from somewhere. Minister Martelli had put his finger on a major problem for democracies—the need to finance the activities, including the electoral campaigns, of the

²³ In some countries these incentives have been provided outside the normal legal process, by high-level public officials, to favored individuals.

political parties.²⁴ When public money is not available for the activities of the political parties, enormous pressures will build up to generate funds. The recent controversy concerning political donations in the United States is an example of this problem. As Susan Rose-Ackerman (1997, p. 40) has put it: "Democracy gives citizens a role in choosing their political leaders. Thus corrupt elected officials can be voted out of office. But democracy is not necessarily a cure for corruption."

IV. Indirect Causes of Corruption

Besides the factors that promote corruption directly, discussed in the previous section, other factors can contribute to corruption indirectly. Some of these are discussed briefly in this section.

Quality of the Bureaucracy

The quality of the bureaucracy varies greatly among countries. In some, public sector jobs give a lot of prestige and status; in others, much less so. Many factors contribute to that quality. Many years ago Max Weber (1947), the outstanding German sociologist, described what should be the characteristics of an *ideal* bureaucracy. He was aware that most bureaucracies are not ideal. Tradition and the effect that it has on the pride that individuals have in working for the government may explain why, all things being equal, some bureaucracies are much more efficient and much less vulnerable to corruption than others. ²⁵ Rauch and Evans (1997) have gathered information on the degree to which civil servants' recruitment and promotions are merit based for 35 developing countries. Their results indicate that the less recruitment and promotion are based on merit, the higher is the extent of corruption.

Absence of politically motivated hiring, patronage, and nepotism, and clear rules on promotions and hiring, in addition to some of the factors discussed separately below, all contribute to the quality of a bureaucracy.

²⁴ One of the leading judges of *mani pulite* (clean hands), the investigation in the Italian corruption scandal, has recently described the arrangements among the parties to share the proceeds from corruption. See Nordio (1997). On the issue of political corruption, see also Cazzola (1988); Johnston (1997); and Ferrero and Brosio (1997).

²⁵ See von Klimo (1997). Von Klimo compares the public conception of an inefficient and corrupt public administration in 19th century Italy with the "myth of absolute efficiency and incorruptibility" enjoyed by the administration of the Prussian state.

The incentive structure plus tradition go a long way toward explaining why some bureaucracies are much less corrupt than others.²⁶

Level of Public Sector Wages

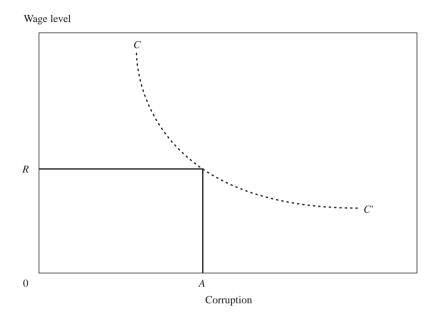
Over the years many observers have speculated that the wages paid to civil servants are important in determining the degree of corruption. For example. Assar Lindbeck (1998) attributes the low corruption in Sweden in this century partly to the fact that at the turn of the century, high-level administrators earned 12-15 times the salary of an average industrial worker. One can speculate that there may be corruption due to greed and corruption due to need. In Figure 1, CC' represents the trade-off between the level of corruption and the level of wages. The higher the wage level, the lower is corruption. Assume that OR represents a level of wage consistent with the minimum required by the family of a public employee for a decent living. It can be assumed that *OA* is corruption due to greed, while corruption beyond OA would be due to need. Figure 1 also implies that, regardless of the wage level, some public officials will be corrupt perhaps because of their own psychological or moral makeup, or because some of the bribes offered may be too large for some officials to resist. Thus, it implies, realistically, that not all officials respond in the same way to the same incentives. In theoretical jargon, agents are heterogeneous.

The relationship between wage level and corruption index has been tested empirically by Van Rijckeghem and Weder (1997). See also Haque and Sahay (1996). With the use of cross-sectional data, they have been able to support the common intuition by finding a statistically significant relationship between corruption and wage levels, similar to that shown by the CC' curve in Figure 1. They have speculated that while an increase in the wage level is likely to reduce corruption, a very large increase would be necessary to reduce it to minimal levels. In other words, the fight against corruption, pursued exclusively on the basis of wage increases, can be very costly to the budget of a country and can achieve only part of the objective. Furthermore, as argued above, even at high wages some individuals may continue to engage in corrupt practices.

In recent years, several countries (Argentina, Peru, etc.) have attempted to reduce corruption in particularly sensitive areas, such as customs and tax administrations, by increasing the level of salaries for the public

²⁶ In some countries, public sector hiring has had the reduction of unemployment as its main objective, rather than improving the quality of the public administration.

Figure 1. Wage Level Corruption Trade-Off



employees in these areas.²⁷ These countries have also increased salary differentials to be able to retain and attract more able, productive, and honest individuals. Over the years, Singapore has pursued a wage policy aimed at reducing the temptation for public officials to engage in acts of corruption. Reportedly, the salaries of ministers and other high-level officials in Singapore are among the highest in the world.²⁸

There has been some speculation in the theoretical economic literature that high wages may reduce the number of corrupt acts, while they may lead to demands for higher bribes on the part of those who continue to be corrupt. The reason is that high wages raise the opportunity cost of losing one's job, while they do not eliminate the greed on the part of some officials. Thus, while the number of corrupt acts is reduced, the total amount of corruption money paid may not necessarily fall.

²⁷ In Peru, the wage structure in the tax administration became similar to that of the central bank and thus somewhat higher than the wage structure of the rest of the civil service. Also, an incentive system was introduced that assigned to the tax administration (SUNAT) a share of the tax revenue. The average age of the employees of the tax administration fell dramatically.

²⁸ A common belief is that in situations of low wages but high possibilities of corruption, less honest individuals will be attracted to the civil service.

Penalty Systems

Following Gary Becker's (1968) classic analysis of crime prevention, given the probability that the perpetrator of a crime would be caught, the penalty imposed plays an important role in determining the probability that criminal or illegal acts would take place.²⁹ In theory, all things being equal, corruption could be reduced by increasing the penalties on those who get caught. This analysis implies that the penalty structure existing in a country is an important factor in determining the extent of corruption in that country. But once again, at least theoretically, higher penalties may reduce the *number* of acts of corruption, but they may lead to demands for higher bribes on the corrupt acts that still take place.

In the real world, relatively few people are punished for acts of corruption, in spite of the extent of the phenomenon. Furthermore, with the exception of a few countries, there seems to be a wide gap between the penalties specified in the laws and regulations and the penalties that are effectively imposed.³⁰ Generally, effective penalties tend to be more lenient than the statutory ones. The administrative procedures followed before a public employee is punished for acts of corruption are slow and cumbersome. Often legal, political, or administrative impediments prevent the full or quick application of the penalties. Due process and the need to provide incontrovertible evidence are major hurdles. The potential accusers are often reluctant to come forward and to spend the time and effort to go through the full process required to punish someone. Also, when corruption is widespread, the costs to the accusers in terms of social capital, such as lost friends, can be high.³¹ Furthermore, the judges who will impose the penalties may themselves be accessible to corruption or may have political biases, so that they may be bought by the accused or may put obstacles in the way of the proceedings. All these factors limit the role that penalties actually play in many countries, especially when corruption is partly politically motivated. This attitude brings a toleration for small acts of corruption that can in time encourage bigger acts.³²

²⁹ For an econometric application of Becker's theory to the Netherlands, see van Tulden and van der Torre (1997).

³⁰ China has recently gone as far as applying the death penalty to some individuals accused of corruption. However, many acts of corruption still go unpunished, so that uncertainty prevails on the treatment of individuals accused of corruption. This may lead to the perception that penalties are applied selectively or arbitrarily.

This may lead to the perception that penalties are applied selectively or arbitrarily.

31 Even in countries with relatively little corruption, so-called "whistle blowers" do not seem to have an easy time.

³²Reluctance to apply harsh penalties may also be due to concerns that the penalties might be applied selectively, to political opponents.

Institutional Controls

The other important ingredient in Gary Becker's analysis is the probability that those who commit crimes would be caught. This leads to the role of institutional controls. The existence of these controls reflects to a large extent the attitude of the political body toward this problem. Generally, the most effective controls should be those that exist inside institutions. This is really the first line of defense. Honest and effective supervisors, good auditing offices, and clear rules on ethical behavior should be able to discourage or discover corrupt activities. Good and transparent procedures should make it easier for these offices to exercise their controls. Supervisors should be able to monitor the activities of their subordinates and they should themselves be held accountable for acts of corruption in their offices that go unpunished. These characteristics vary from country to country. In some, these checks are almost nonexistent, so that corruption is mostly discovered by chance or through the reporting by outsiders, including the media. In this connection, the role of a free press in controlling corruption cannot be exaggerated. See Brunetti and Weder (1998).

Several countries, including Singapore, Hong Kong, Uganda, Argentina, and others, have created anticorruption commissions or ethics offices expressly charged with the responsibility of following reports on corruption or reducing corruption through the requirement on the part of public officials to report their wealth and in other ways. To be effective, these offices must have independence from the political establishment, ample resources, and personnel of the highest integrity. They must also have the power to enforce penalties or, at least, have others, including the judiciary, enforce the penalties. Unfortunately, in some countries these offices are required to report confidentially to the president or the prime minister of the country rather than, say, openly to the legislative body. This reduces their effectiveness and politicizes the process. In other countries, these commissions do not have the power to impose penalties and their reports may not have any following by other institutions.

Transparency of Rules, Laws, and Processes

In many countries, the lack of transparency in rules, laws, and processes creates a fertile ground for corruption. Rules are often confusing, the documents specifying them are not publicly available, and, at times, the rules are changed without properly publicized announcements. Laws or regulations are

³³ For the experience of Uganda in the fight against corruption, see Ruzindana (1997) and Langseth and Stapenhurst (1997).

written in a way that only trained lawyers can understand and they are often conceptually opaque about important aspects, thus leaving grounds for different interpretations. Processes or procedures on policy matters and other actions, for example, competitions for public projects, are equally opaque, so that at times it is difficult to understand or to determine the process that was followed before a decision was reached. This makes it difficult to determine whether corruption has played a role in some important decisions.

Some countries—for example, New Zealand—have made great efforts in recent years to bring more transparency to all the accounts and actions of the government. The IMF has recently issued a code on fiscal transparency for its member countries that, if followed, would have the effect of reducing corruption.

Examples by the Leadership

A final contributing factor is the example provided by the leadership. When the top political leaders do not provide the right example, either because they engage in acts of corruption or, as is more often the case, because they condone such acts on the part of relatives, friends, or political associates, it cannot be expected that the employees in the public administration will behave differently. The same argument applies within particular institutions such as tax administration, customs, and public enterprises. These institutions cannot be expected to be corruption free if their heads do not provide the best examples of honesty.

In some countries, the leadership has been somewhat indifferent to this problem. In an African country, a president refused to fire ministers widely reputed to be corrupt. In an Asian country, a minister that was accused of corruption was simply moved to head another ministry. In a Latin American country, a president who was planning to create an anticorruption commission proposed to appoint as head of this commission an individual widely reported to be corrupt. Examples such as these do not help create the climate for a corruption-free society.

V. Measurement of Corruption

If corruption could be measured, it could probably be eliminated. In fact, conceptually it is not even clear what one would want to measure.³⁴ Simply measuring bribes paid would ignore many corrupt acts that are not accompanied by the payment of bribes. An attempt to measure acts of corruption

³⁴ One could measure acts of corruption on bribes paid.

rather than the amounts of bribes paid would require counting many relatively unimportant actions and identifying each act—information that is simply not available. While there are no *direct* ways of measuring corruption, there are several indirect ways of getting information about its prevalence in a country or in an institution. Useful information can be obtained from:

- reports on corruption available from published sources including newspapers. The Internet has become a most valuable source. 35 Newspapers such as *Le Monde*, *The Financial Times*, and *The New York Times* and magazines such as *The Economist* and *The Far Eastern Economic Review* have published many articles on corruption.
- case studies of corrupt agencies such as tax administrations, customs, and police. Unfortunately, while there are many such studies, often the reports are internal and are kept confidential.
- questionnaire-based surveys. These can be related to a specific agency (for example, Peru's or Argentina's tax administration); or to a whole country. These surveys *measure perceptions of corruption rather than corruption per se*. The World Bank has been making use of these surveys in its work in Tanzania, Uganda, India, Ukraine, and other places. It has used these surveys to improve the effectiveness of particular programs such as health care.

Countrywide surveys are available from the following organizations: Global Competitiveness Report (Geneva); Political and Economic Risk Consultancy (Hong Kong); Transparency International (Berlin); and Political Risk Services (Syracuse). The Gallup poll has also conducted a major survey for 44 countries dealing with corruption in particular activities, and the World Bank has conducted a survey for many countries.

The results obtained from these surveys are now widely used by researchers and business people. The best-known of these surveys, the Transparency International index, for example, assesses the perception of corruption on a scale of 0 to 10. Ten refers to a corruption-free country; zero refers to a country where most transactions or relations are tainted by corruption. The variance of these indexes, which reflects how the views are spread among respondents, is also important and has been used by some researchers in their work.³⁶ People may tend to confuse these indexes with actual measurements of corruption. It is important to keep in mind that the

 $^{^{35}}$ For some countries, the Internet reports tens of thousands of entries on the subject of corruption. 36 See, for example, Wei (1997a and 1997b).

indexes reflect *perceptions and not objective and quantitative measures of actual corruption.* One good feature is that the various indexes available are highly correlated among themselves.

Table 1 shows the indexes for 1995 to 1998 reported by Transparency International. Comparing the 1995 figures with those reported in 1998 for the countries covered in both years indicates that countries tend to hold their positions although some important changes in particular countries are shown. See Figure 2. How closely changes in these indexes reflect real changes within given countries is an important, open question. A single but widely reported case of corruption may easily change perceptions in a given country and in a given year, and lead to an index that may not correctly assess the extent of corruption in that country.

VI. Economic Effects of Corruption

Review of Theoretical Arguments

The recent fairly broad consensus seems to be that corruption is unqualifiably bad. However, in past years, the views on corruption had been more divergent and some economists had even found some redeeming value in it.³⁷ Until the 1997 financial crisis, some countries from Southeast Asia seemed to provide support for the view that corruption might promote growth. Indonesia, Thailand, and some other countries were often mentioned as countries growing fast in spite of, or even because of, perceived high levels of corruption. This corruption was associated with a low degree of uncertainty.³⁸ For Indonesia, it was argued that institutionalizing corruption made it less damaging to economic development than random corruption. One knew where to go and how much to pay for specific services. Some of the arguments in favor of the view that corruption may promote efficiency and even growth are summarized below.³⁹ This survey is not intended to be exhaustive but just to provide a feel for the relevant literature.

Leff (1964) and Huntington (1968) advanced the view that corruption can be efficiency enhancing because it removes government-imposed rigidities that impede investment and interfere with other economic decisions favorable to growth. Thus, corruption "oils the mechanism" or

³⁷ Even today a few economists argue that, within well confined circumstances, corruption may promote faster growth. See, for example, Braguinsky (1996).

³⁸ Since the fall of 1997, some accounts have blamed corruption for the currency

³⁸ Since the fall of 1997, some accounts have blamed corruption for the currency crises caused by unproductive investments and high short-term borrowing.

³⁹ For a review, see Bardhan (1997) and Susan Rose-Ackerman (1997).

Table 1. Corruption Perception Index, 1995–98

		1	1			
Country	1995	1996	1997	1998	Rank in 1998	Rank in 1996
Denmark Finland Sweden New Zealand Iceland	9.32 9.12 8.87 9.55	9.33 9.05 9.08 9.43	9.94 9.48 9.35 9.23	10.00 9.60 9.50 9.40 9.30	1 2 3 4 5	2 4 3 1
Canada Singapore Norway Netherlands Switzerland	8.87 9.26 8.61 8.69 8.76	8.96 8.80 8.87 8.71 8.76	9.10 8.66 8.92 9.03 8.61	9.20 9.10 9.00 9.00 8.90	6 7 8 9 10	5 7 6 9 8
United Kingdom Luxembourg Australia Ireland Germany	8.57 8.80 8.57 8.14	8.44 8.60 8.45 8.27	8.22 8.61 8.86 8.28 8.23	8.70 8.70 8.70 8.20 7.90	11 12 13 14 15	12 10 11 13
Hong Kong Austria United States Israel Chile	7.12 7.13 7.79 7.94	7.01 7.59 7.66 7.71 6.80	7.28 7.61 7.61 7.97 6.05	7.80 7.50 7.50 7.10 6.80	16 17 18 19 20	18 16 15 14 21
France Portugal Spain Botswana Japan	7.00 5.56 4.35 6.72	6.96 6.53 4.31 7.05	6.66 6.97 5.90 6.57	6.70 6.50 6.10 6.10 5.80	21 22 23 24 25	19 22 32 17
Estonia Costa Rica Belgium Malaysia Taiwan	6.85 5.28	6.84 5.32	6.45 5.25 5.01	5.70 5.60 5.40 5.30	26 27 28 29	 20 26
Province of China	5.08	4.98	5.02	5.30	30	29
Namibia South Africa Hungary Mauritius Tunisia	5.62 4.12 	5.68 4.86 	4.95 5.18 	5.30 5.20 5.00 5.00 5.00	31 32 33 34 35	23 31
Greece Czech Republic Jordan Italy Poland	4.04 2.99 	5.01 5.37 4.89 3.42 5.57	5.35 5.20 5.03 5.08	4.90 4.80 4.70 4.60 4.60	36 37 38 39 40	28 25 30 34 24
Peru Uruguay South Korea Zimbabwe Malawi	 4.29 	5.02 	4.14 4.29 	4.50 4.30 4.20 4.20 4.10	41 42 43 44 45	 27

Table 1. (concluded)

Tuble 1. (continued)										
Country	1995	1996	1997	1998	Rank in 1998	Rank in 1996				
Brazil Belarus Slovak Republic Jamaica Morocco	2.70	2.96 	3.56	4.00 3.90 3.90 3.80 3.70	46 47 48 49 50	40 				
El Salvador China Zambia Turkey Mexico	2.16 4.10 3.18	2.43 3.54 3.30	2.88 3.21 2.66	3.60 3.50 3.50 3.40 3.30	51 52 53 54 55	 50 33 38				
Philippines Ghana Senegal Côte d'Ivoire Guatemala	2.77	2.69	3.05	3.30 3.30 3.30 3.10 3.10	56 57 58 59 60	44 				
Argentina Thailand Romania Nicaragua Yugoslavia	5.24 2.79 	3.41 3.33 	2.81 3.06 3.44 	3.00 3.00 3.00 3.00 3.00	61 62 63 64 65	35 37 				
India Egypt Bulgaria Bolivia Ukraine	2.78	2.63 2.84 3.40	2.75 2.05 	2.90 2.90 2.90 2.80 2.80	66 67 68 69 70	46 41 36 				
Pakistan Latvia Uganda Vietnam Kenya	2.25	1.00 2.71 2.21	2.53 2.79 	2.70 2.70 2.60 2.50 2.50	71 72 73 74 75	53 43 52				
Russia Venezuela Ecuador Colombia Indonesia	2.66 3.44 1.94	2.58 2.50 3.19 2.73 2.65	2.27 2.77 2.23 2.72	2.40 2.30 2.30 2.20 2.00	76 77 78 79 80	47 48 39 42 45				
Nigeria Tanzania Honduras Paraguay Cameroon Bangladesh		0.69 2.46 2.29	1.76 	1.90 1.90 1.70 1.50 1.40	81 82 83 84 85	54 49 51				
Memorandum items: Number of countries Average Median Minimum Maximum	5.93 5.62 1.94 9.55	54 5.35 5.02 0.69 9.43	52 5.67 5.23 1.76 9.94	85 4.89 4.20 1.40 10.00						

Source: Transparency International.
Notes: Data refer to perception of corruption ranging from 10 (highly clean) to 0 (highly corrupt). Ranking for 1998 and 1996 are based on 1998 and 1996 data respectively. The data have been rearranged by the author.

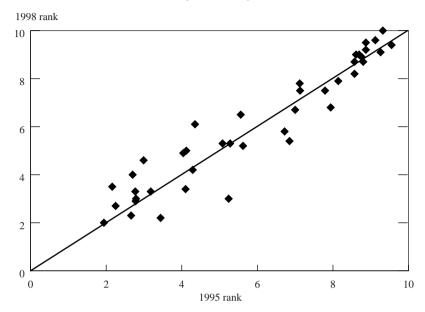


Figure 2. Corruption Ranking: 1995 vs. 1998 (53 countries)

"greases the wheel." This reasoning was often used to explain the high rates of growth in some countries of South East Asia.

Beck and Maher (1986) and Lien (1986) have developed models that show that, in bidding competitions, those who are most efficient can afford to offer the highest bribe. Therefore, bribes can promote efficiency by assigning projects to the most efficient firms.

Lui (1985) has argued that time has different values for different individuals, depending on their level of income and the opportunity cost of their time. Those for whom time is most valuable will offer bribes to public officials to be allowed to economize on time by jumping in front of the line, that is, by getting decisions more quickly. Thus, corruption can be efficient because it saves time for those for whom time has the greatest value. In a later paper, Lui (1996) argued that while corruption may improve the allocation of resources in some circumstances, it reduces growth because it provides some individuals the incentive to acquire the kind of human capital that can be used to improve corruption opportunities. This argument is related to those by Baumol (1990) and by Murphy, Shleifer, and Vishny (1991), discussed below.

Corruption can be a useful political glue by allowing politicians to get funds that can be used to hold a country together. The latter outcome may be a necessary condition for growth. See Graziano (1980).

Bribes can supplement low wages. Thus, corruption can allow the government to maintain a lower tax burden, which can favor growth. See Tullock (1996) and Becker and Stigler (1974). The issue here is whether a lower tax burden is more favorable to growth than a lower degree of corruption. This is a classic second-best problem.

The above theoretical arguments, which seemingly favor corruption, can be countered in many ways. First, rigidities and rules are not exogenous and unmovable features of a society; a society is not born with these rigidities. They are created, and, in fact, they may be intentionally created by public officials, to extract bribes. When rules can be used to extract bribes, more rules will be created. Furthermore, these rules are often kept intentionally opaque so that more power will remain on the side of those who enforce them. Knowledge gives power to those who have it.

Second, those who can pay the highest bribes are not necessarily the most economically efficient but rather the most successful at rent seeking. If bribes are seen as investments, those who pay them must consider that they are investments with a high rate of return. Baumol (1990) and Murphy, Shleifer, and Vishny (1991) have advanced related arguments that can be used to argue that, in traditional or corrupt societies, the most able individuals will be diverted, by existing incentives, from pursuing socially productive activities and toward rent-seeking activities. This diversion will impose a high cost for the growth of these countries. If the potentially most socially productive individuals are in scarce supply, as they are assumed to be, the diversion of their talent toward rent-seeking activities and corruption will be particularly damaging to society.

Third, payment of speed money may be an inducement for the bureaucrats to reduce the speed at which most practices are being processed. See Myrdal (1968). Bribes may change the order in which public officials perform the process, say, of providing permits, but they may also slow down the average time for the whole process.

And while corruption and rent seeking may be helpful as political glue or as wage supplements in the short run, they may lead to major problems over the longer run, as shown by the experience of Zaïre under Mobutu.

Qualitative Effects of Corruption on the Economy

Corruption reduces public revenue and increases public spending. It thus contributes to larger fiscal deficits, making it more difficult for the government to run a sound fiscal policy. Corruption is likely to increase income inequality because it allows well-positioned individuals to take advantage

of government activities at the cost of the rest of the population.⁴⁰ There are strong indications that the changes in income distribution that have occurred in recent years in previously centrally planned economies have partly been the result of corrupt actions such as nomenklatura privatization.

Corruption distorts markets and the allocation of resources for the following reasons, and is therefore likely to reduce economic efficiency and growth.

- It reduces the ability of the government to impose necessary regulatory
 controls and inspections to correct for market failures. Then the government does not satisfactorily perform its regulatory role over banks,
 hospitals, food distribution, transportation activities, financial markets
 and so on. When government intervention is motivated by corruption,
 as for example when the government creates monopolies for private
 interests, it is likely to add to the existing market failures.
- It distorts incentives. As already mentioned, in a corrupt environment, able individuals allocate their energies to rent seeking and to corrupt practices and not to productive activities. In some cases, the resulting activities have a negative value added.
- It acts as an arbitrary tax (with high welfare costs). Corruption's random nature creates high excess burdens because the cost of searching for those to whom the bribe must be paid must be added to the cost of negotiating and paying the bribe. Also, the contractual obligations secured by the payment of a bribe are more likely to be violated when corruption is decentralized 41
- It reduces or distorts the fundamental role of the government in such
 areas as enforcement of contracts and protection of property rights.
 When a citizen can buy his or her way out of a commitment or out of
 a contractual obligation, or when one is prevented from exercising
 one's property rights because of corruption, this fundamental role of
 the government is distorted and growth may be negatively affected.
- It reduces the legitimacy of the market economy and perhaps also of democracy. In fact, the criticisms voiced in many countries, especially in transition economies, against democracy and the market economy are motivated by the existence of corruption. Thus, corruption may slow down or even block the movement toward democracy and a market economy.

⁴¹ Furthermore, random corruption may also be accompanied by higher penalties if the act of corruption is discovered.

⁴⁰ For a quantitative analysis that establishes a connection between higher corruption on the one hand and higher income inequality and poverty on the other hand, see Gupta, Davoodi, and Alonso-Terme (1998).

• Finally, corruption is likely to increase poverty because it reduces the income earning potential of the poor.

In many countries (e.g., Ukraine, Russia, and Indonesia), enterprises—especially small ones—are forced by public officials to pay to make things happen or even to keep bad things from happening. Often these payments must be made if the enterprise is to remain in business. In Indonesia, there is a term for these payments ("pungli") and, according to a recent report, these payments may raise the costs of doing business for small activities by as much as 20 percent of total operating costs (see Sjaifudian, 1997). This is equivalent to imposing very high sales taxes on these enterprises. Similar information has been reported for Russia (Shleifer, 1996) and for Ukraine (Kaufmann, 1997), but the problem may be much more widespread.

Cost-increasing corruption is often coercive for small enterprises, especially for emerging enterprises, which are often bullied by bureaucrats and tax inspectors into making substantial payments. Pressures on new enterprises often come from local government officials, who impose high pecuniary costs—some legal and some not—for licenses and authorizations. ⁴² These officials also impose high costs in terms of the time that the managers of the enterprises must spend to comply with the many requirements imposed on them. The burden of these costs is likely to fall on the small enterprises because they operate in a far more competitive market than large ones, so that they have greater difficulty in passing the costs on to their customers. Since small enterprises are the engine of growth in most countries, obstacles to their creation and growth cause economies to languish, especially in developing countries and increasingly in economies in transition.

Large enterprises can protect themselves more easily from problems of corruption because

- they have specialized departments that can deal with aggressive bureaucrats;
- they can use "facilitators"—individuals skilled at fighting through the jungle of opaque regulations and tax laws;
- their size makes them more immune to the extortion of petty bureaucrats; and
- they can use their political power to influence relevant individuals in the public administration or to pursue rent-seeking activities not

 $^{^{42}\,\}mathrm{These}$ small enterprises may be preyed upon by the police, health inspectors, tax inspectors, and the myriad of other individuals presumably representing the government.

available to others. For example, they may use gifts, or bribes camouflaged as political donations, to acquire market power through reduction in competition or to obtain tax incentives, subsidized credit, or other benefits.

Recent reforms, such as trade liberalization, in many countries have removed obstacles to economic growth that had characterized earlier periods. However, these obstacles were imposed mostly by the national governments. They were probably more important for large enterprises, which are more likely to trade abroad and to operate in the whole national territory. These reforms have not done much to reduce the many regulations, controls, opaque taxes, and fees imposed by *local* governments, unions, professional groups, and so on. These are probably the most important obstacles for the small enterprises.

Effects of Corruption on the Economy: Econometric Results

In the past couple of years, several studies, using cross-sectional analysis and the available corruption indexes, have reported important quantitative results on the effects of corruption on economic variables. These results suggest that corruption has a negative impact on the rate of growth of countries. Some, but not all, of these studies are mentioned below.

It has been found that corruption has the following effects.

- It reduces investment and, as a consequence, reduces the rate of growth. See Mauro (1995). Such reduction in investment is assumed to be caused by the higher costs and the uncertainty that corruption creates. In this analysis, the reduction in the rate of growth is a direct consequence of the decline in the investment rate. In other words, the analysis is based on a production function that makes growth a function of investment.
- It reduces expenditure on education and health, which does not lend itself
 easily to corrupt practices on the part of those who make budgetary decisions.⁴³ See Mauro (1997).
- It increases public investment because public investment projects lend themselves easily to manipulations by high-level officials to get bribes. See Tanzi and Davoodi (1997). Corruption also distorts the

⁴³ Of course, this does not mean that there is no corruption in the provision of these services. The provision of health is often distorted by bribes to doctors or other medical personnel to get better or faster service.

- effects of industrial policy on investment. See Ades and Di Tella (1997).
- It reduces expenditure for operation and maintenance for reasons similar to those that reduce expenditure for education and health. See Tanzi and Davoodi (1997).
- It reduces the productivity of public investment and of a country's infrastructure. See Tanzi and Davoodi (1997).
- It reduces tax revenue, mainly because of the impact that it has on the
 tax administration and on customs, thus reducing the ability of the
 government to carry out needed public expenditure. See Tanzi and
 Davoodi (1997).
- It reduces foreign direct investment because corruption has the same effect as a tax, and in fact operates as a tax. See Wei (1997a). The less predictable the level of corruption (the higher is its variance), the greater is its impact on foreign direct investment. A higher variance makes corruption behave like an unpredictable and random tax. See Wei (1997b). Thus, increases in corruption and in its unpredictability are equivalent to increases in the tax rate on enterprises. Wei concludes that raising the index of corruption from the Singapore level to the Mexican level is equivalent to increasing the marginal tax rate on enterprises by 20 percentage points.

VII. The Fight Against Corruption and the Role of the State

The many factors that contribute to corruption tend to be more common in poorer countries and in economies in transition than in rich countries. Thus, at some point in time, economic development reduces the level of corruption of a country. However, at similar levels of development, some countries are perceived to have more corruption than others.

Some economies (Singapore, Hong Kong, Portugal) have managed to reduce the incidence of corruption significantly. Lindbeck (1998, p. 3) has pointed out that even in Sweden "corruption flourished . . . in the second half of the 18th century and in the early 19th century." Thus, governments should not be fatalistic or passive about corruption. With well-focused and determined efforts, corruption can be reduced, though not to zero. Trying to eliminate corruption altogether would be too costly, both in terms of resources and in other ways. For example, it may require excessively high public sector wages, major legal or organizational changes, excessive limitations in civil rights, or very harsh effective penalties. An optimal *theoretical* level would be reached where the marginal social costs of reducing corruption further would be equal to the marginal social benefits from that reduction. 44

Thus, it is realistic to think that the level of corruption will remain above zero in all countries. In fact, probably no country is free of corruption.

Corruption is a complex phenomenon that is almost never explained by a single cause. If it were, the solution would be simple. Of the many factors that influence it, some can be changed more easily than others. Because of the complexity of the phenomenon, the fight against corruption must be pursued on many fronts. It is a fight that cannot be won in months or even in a few years. The greatest mistake that can be made is to rely on a strategy that depends excessively on actions in a single area, such as increasing the salaries of the public sector employees, or increasing penalties, or creating an anticorruption office, and then to expect quick results.

Any realistic strategy must start with an explicit recognition that there are those who demand acts of corruption on the part of public sector employees and there are public employees willing for a price to perform these acts. There is thus both a demand for and supply of corruption. And as is the case with all demands and supplies, the price plays a major role. Various incentives determine the elasticities of these supply and demand functions. In the basic case, the briber wants something (a reduction in a cost or an increase in a benefit) from the public official and is willing to pay a bribe for it. The official has something to sell (i.e., power) and wants to be compensated for the risk and the effort involved. 45 However, in the background there is the state in the totality of its actions carried out by the many agencies that constitute the public sector. To a large extent it is the state that, through its many policies and actions, creates the environment and incentives that influence those who pay bribes and those who accept or demand them. It is the state that influences the relationship between briber and bribee. See Klitgaard (1988).

In the ideal bureaucracies described by Max Weber, the public official (as the agent of the state) is the faithful executor of the mandate and instructions that he receives from the state (the principal). The public official is just a conduit, or a direct and legitimate channel for the relationship between the state and the citizen. He would not distort the state-citizen relationship. In this Weberian world, no principal-agent problems would develop. Unfortunately, in the real world. Weberian bureaucracies are rare⁴⁶ in part because the actions and the policies of the state are not always transparent and in part because of characteristics of the bureaucracies themselves. The citizens may question the

⁴⁴ In practice, of course, these marginal costs and marginal benefits are impossible to measure.

 ⁴⁵ Of course, we are ignoring the cases when corruption is coercive and reflects the pressures of public officials or individuals.
 46 They may be approximated only in a few countries such as Denmark, Sweden, New Zealand, Canada, and perhaps a few others.

legitimacy of some state actions, attributing them to rent seeking by public officials and not to the pursuit of the public interest. The state may have de facto fractured into several power centers (ministries, public enterprises, independent institutions, subnational governments, and so on), each pursuing somewhat distinct interests. Sometimes the policies of these power centers are not consistent with one another and the instructions that emanate from these public centers are conflicting.⁴⁷

At times, the instructions passed on to the agents who will carry out the execution of the policies are not clear because the top policymakers do not have clear ideas or perhaps do not wish their actions to be totally transparent. Total transparency in processes and in policies may imply less power for particular policymakers, in the sense that their discretion in affecting the welfare of particular groups is reduced. Thus, the fight against corruption is not distinct and independent from the reform of the state, because some of the measures to reduce corruption are at the same time measures that change the character of the state. Let us consider a few examples.

It is generally believed that the level of relative wages in the public sector is an important variable in the degree of corruption in a country. Singapore, a country with a good index of corruption and where corruption was much reduced over the years, has some of the highest wages for public employees. Reportedly, its ministers receive the highest salaries in the world. The civil service of Singapore is small and enjoys a high status.

In countries where public sector wages are low with respect to those in the private sector, these wages are often low because public policies have inflated the number of people working for the government. In other words, the governments have traded wage levels against the number of civil servants on their payrolls. The increase in the number of employees has meant lower real wages paid to them. In these situations, it is not realistic or wise to suggest that these countries simply increase real wages without first reducing the size of the civil service. However, for many governments, reducing the number of public employees would run counter to the objectives of their government, or at least would be politically difficult. And many governments believe that unemployment can be reduced through public sector hiring.

The same argument applies to wage differentials. Many governments aim to reduce the spread in their employees' wages. In some countries, the ratio between the highest salaries and the lowest has been reduced to three. This is far less than in the private sector. The effect of this wage compression is that the most qualified and the most honest employees tend to leave the

⁴⁷ This is particularly the case of tax officials in some countries with decentralized fiscal systems. In these situations, the officials may be subject to conflicting pressures from the national government and the local governments.

public sector for the private sector. For many governments, changing this policy would be contrary to their goals and in many cases would be opposed by the labor unions.

It is generally believed that increasing the penalties for acts of corruption would reduce a country's corruption. However, the imposition of higher penalties could run into problems with employees' associations, with trade unions, with the judiciary system, and so on. Also, there is the danger that an unscrupulous government would use this weapon to go after political opponents. In other words, penalties could be used selectively or, worse, they could be used in connection with fabricated accusations. In democratic societies, penalties are imposed only after what is often a lengthy and costly process. The immediate supervisors of the corrupt officials may be reluctant to carry the brunt of some of the procedural costs (in terms of time lost, damaged friendships, etc.), and may prefer to close their eyes to acts of corruption.

It is generally believed that many acts of corruption are stimulated by the existence of regulations. Some kinds of quasi-fiscal regulations at times substitute for taxing and spending actions. It is useful to point out that some of the countries perceived to be the least corrupt (e.g., Sweden, Denmark, Canada) have some of the highest tax burdens. On the other hand, some of the countries with the highest indexes of corruption (e.g., Nigeria, Pakistan, Bangladesh, China, Venezuela) have some of the lowest tax burdens. In the latter group of countries, quasi-fiscal regulations (i.e., regulations that substitute for taxing and spending) substitute taxes and public expenditures.⁴⁸ Thus, to reduce corruption these countries would need to eliminate these quasi-fiscal regulations and, if necessary, replace them with taxing and spending policies. But quasi-fiscal regulations are predominant in these economies and they would have a difficult time in raising the level of taxation substantially. Once again we come to the conclusion that the fight against corruption and the reform of the state are two sides of the same coin.

Tax incentives, especially when they imply discretionary decisions on the part of public officials, create conditions in which corruption develops. A simple recommendation would be to eliminate tax incentives and replace them with tax systems with broad bases and lower rates, as often suggested by tax experts. Unfortunately, the roles that some governments want to play require the use of these incentives.⁴⁹ Therefore, once again, the fight against corruption requires a reform in the role of the state.

⁴⁸ For a discussion of quasi-fiscal regulations and their power to replace taxing

and spending, see Tanzi (1995b).

49 This has been a major issue in economies in transition where governments want to continue to directly influence the activities in some sectors. Thus, the policymakers have found it hard to accept the approach associated with broad-based taxes.

Corruption often accompanies the provision by the government of goods and services at below-market prices. This often occurs with credit, foreign exchange, the prices of public utility services, public housing, higher education, health services, and so on. The low or zero prices create excess demand and the need to ration the good or service. Rationing always brings corruption. Thus, raising these prices to equilibrium level whenever possible would eliminate or reduce corruption. However, it would also change the role of the state in a way that many governments are not willing to accept.

Many other examples could be provided. However, these are sufficient to make the point that the fight against corruption often cannot proceed independently from the reform of the state. In many ways, it is the same fight. Thus, corruption will be reduced only in those countries where governments are willing to substantially reduce some of their functions.

VIII. Concluding Remarks

In this paper I have discussed the phenomenon of corruption, which affects many countries. I have shown the incidence of this phenomenon and the damage that it brings to economies and democracies. When corruption is widespread and especially when it contaminates the actions of the policymakers in democratic, market-oriented economies, it becomes more difficult to argue in favor of such economic and political arrangements. The widespread disillusion among the population of some economies in transition and some developing countries with both market economies and democratic processes is very much caused by the widespread corruption that prevails in these countries and is wrongly attributed to the market economy and the democratic process.

I have also argued that corruption is closely linked to the way governments conduct their affairs in modern societies, and therefore also to the growth of some of the government's activities in the economy. It is unlikely that corruption can be substantially reduced without modifying the way governments operate. The fight against corruption is, thus, intimately linked with the reform of the state.

In any case, any serious strategy to attempt to reduce corruption will need action on at least four fronts:

1. honest and visible commitment by the leadership to the fight against corruption, for which the leadership must show zero tolerance;

⁵⁰ It should be remembered that many dictators or many potential dictators make the fight against corruption one of the reasons why they should be given the reigns of a country. Some associate democracy with lack of discipline.

- policy changes that reduce the demand for corruption by scaling down regulations and other policies such as tax incentives, and by making those that are retained as transparent and as nondiscretionary as possible:
- 3. reducing the supply of corruption by increasing public sector wages, increasing incentives toward honest behavior, and instituting effective controls and penalties on the public servants; and
- 4. somehow solving the problem of the financing of political parties.

Societies can do much to reduce the intensity of corruption, but no single action will achieve more than a limited improvement—and some of the necessary actions may require major changes in existing policies.

REFERENCES

- Ades, Alberto, and Rafael Di Tella, forthcoming, "Rents, Competition and Corruption," *American Economic Review*.
- ——, 1997, "National Champions and Corruption: Some Unpleasant Interventionist Arithmetic," *Economic Journal*, Vol. 107 (July), pp. 1023–42.
- Bardhan, Pranab, 1997, "Corruption and Development: A Review of Issues," *Journal of Economic Literature*, Vol. 35 (September), pp. 1320–46.
- Baumol, William J., 1990, "Entrepreneurship: Productive, Unproductive, and Destructive," *Journal of Political Economy*, Vol. 98 (October), pp. 893–921.
- Beck, Paul J., and Michael W. Maher, 1986, "A Comparison of Bribery and Bidding in Thin Markets," *Economic Letters*, Vol. 20, No. 1, pp. 1–5.
- Becker, Gary S., 1968, "Crime and Punishment: An Economic Approach," *Journal of Political Economy*, Vol. 76 (March/April), pp. 169–217.
- Becker, Gary S., and George J. Stigler, 1974, "Law Enforcement, Malfeasance, and Compensation for Employees," *Journal of Legal Studies* (January), pp. 1–18.
- Braguinsky, Serguey, 1996, "Corruption and Schumpeterian Growth in Different Economic Environments," *Contemporary Economic Policy*, Vol. 14 (July), pp. 14–25.
- Brunetti, Aymo, and Beatrice Weder, 1998, "A Free Press Is Bad News for Corruption," WWZ Discussion Paper No. 9809 (Basel: Wirtschaftswissenschaftliches Zentrum der Universität Basel, April).
- Cazzola, Franco, 1988, Della Corruzione: Fisiologia e Patologia di un Sistema Politico (Bologna: Il Mulino).
- Davigo, Piercamillo, 1998, *La Giubba del Re: Intervista sulla Corruzione* (Rome-Bari: Editori Laterza).
- Ferrero, Mario, and Giorgio Brosio, 1997, "Nomenklatura Rule Under Democracy: Solving the Italian Political Puzzle," *Journal of Theoretical Politics*, Vol. 9 (October).

- Galasi, Peter, and Gabor Gertesi, 1987, "The Spread of Bribery in a Centrally Planned Economy," *Acta Oeconomica*, Vol. 34 (3–4), pp. 371–89.
- Galtung, Frederik, 1997, "Developing Agencies of Restraint in a Climate of Systemic Corruption: The National Integrity System at Work," paper presented at the Third Vienna Dialogue on Democracy, Vienna, June 26–27.
- Goldman, Marshall, 1997, "The Pitfalls of Russian Privatization," *Challenge*, Vol. 40 (May–June), pp. 35–49.
- Graziano, Luigi, 1980, *Clientelismo e Sistema Politico. Il Caso dell'Italia* (Milan: F. Angeli).
- Grossman, Gregory, 1982, "The Second Economy in the USSR," in *The Underground Economy in the United States and Abroad*, ed. by Vito Tanzi (Lexington, Massachusetts: D.C. Heath), pp. 245–70.
- Gupta, Sanjeev, Hamid Davoodi, Rosa Alonso-Terme, 1998, "Does Corruption Affect Income Inequality and Poverty?" IMF Working Paper 98/76 (Washington: International Monetary Fund).
- Haque, Nadeem Ul, and Ratna Sahay, 1996, "Do Government Wages Cuts Close Budget Deficits? Costs of Corruption," *Staff Papers*, International Monetary Fund, Vol. 43 (December), pp. 754–78.
- Hines, James R., Jr., 1995, "Forbidden Payments: Foreign Bribery and American Business After 1977," NBER Working Paper No. 5266 (Cambridge, Massachusetts: National Bureau of Economic Research, September).
- Huntington, Samuel P., 1968, *Political Order in Changing Societies* (New Haven, Connecticut: Yale University Press)
- Johnston, Michael, 1997, "Public Officials, Private Interests, and Sustainable Democracy: When Politics and Corruption Meet," in *Corruption and the Global Economy*, ed. by Kimberly Ann Elliott (Washington: Institute for International Economics), pp. 61–82.
- Kaufmann, Daniel, 1997, "The Missing Pillar of a Growth Strategy for Ukraine: Reforms for Private Sector Development," in *Ukraine: Accelerating the Transition to Market*, ed. by Peter Cornelius and Patrick Lenain (Washington: International Monetary Fund), pp. 234–74.
- ——, and Paul Siegelbaum, 1996, "Privatization and Corruption in Transition Economies," *Journal of International Affairs*, Vol. 50 (Winter), pp. 419–58.
- Klitgaard, Robert E., 1988, *Controlling Corruption* (Berkeley, California: University of California Press).
- Kopits, George, and Jon Craig, 1998, "Transparency in Government Operations," IMF Occasional Paper No. 158 (Washington: International Monetary Fund).
- Krueger, Anne, 1974, "The Political Economy of the Rent-Seeking Society," *American Economic Review*, Vol. 64 (June), pp. 291–303.
- Langseth, Petter, and Rick Stapenhurst, 1997, "National Integrity System: Country Studies," Economic Development Institute Working Paper (Washington: World Bank).
- Leff, Nathaniel, 1964, "Economic Development Through Bureaucratic Corruption," *American Behavioral Scientist*, pp. 8–14.

- Lien, Da Hsiang Donald, 1986, "A Note on Competitive Bribery Games," *Economic Letters*, Vol. 22, No. 4, pp. 337–41.
- Lindbeck, Assar, 1998, "Swedish Lessons for Post-Socialist Countries" (unpublished; Stockholm: University of Stockholm Institute for International Economic Studies).
- Lui, Francis T., 1985, "An Equilibrium Queuing Model of Bribery," *Journal of Political Economy*, Vol. 93 (August), pp. 760–81.
- ——, 1996, "Three Aspects of Corruption," *Contemporary Economic Policy*, Vol. 14 (July), pp. 26–9.
- Manzetti, Luigi, and Charles Blake, 1997, "Market Reforms and Corruption in Latin America: New Means for Old Ways," *Review of International Political Economy*, Vol. 3 (Winter), pp. 662–97.
- Mauro, Paolo, 1995, "Corruption and Growth," *Quarterly Journal of Economics*, Vol. 110 (August), pp. 681–712.
- ——, 1997, "The Effects of Corruption on Growth, Investment, and Government Expenditure: A Cross-Country Analysis," in *Corruption in the Global Economy*, ed. by Kimberly Ann Elliott (Washington: Institute for International Economics).
- Murphy, Kevin M., Andrei Shleifer, and Robert W. Vishny, 1991, "The Allocation of Talent: Implication for Growth," *Quarterly Journal of Economics*, Vol. 106 (May), pp. 503–30.
- Myrdal, Gunnar, 1968, *Asian Drama: An Inquiry into the Poverty of Nations* (New York: Twentieth Century Fund).
- Nordio, Carlo, 1997, Giustizia (Milan: Angelo Gorini e Associati).
- Noonan, John T. Jr., 1984, Bribes (New York: Macmillan).
- Rauch, James E., and Peter B. Evans, 1997, "Bureaucratic Structure and Bureaucratic Performance in Less Developed Countries" (unpublished: San Diego, California and Berkeley, California; University of California at San Diego and University of California at Berkeley).
- Remnick, David, 1994, *Lenin's Tomb: The Last Days of the Soviet Empire* (New York: Random House).
- Rose-Ackerman, Susan, 1997, "Corruption and Development," paper prepared for the Annual Bank Conference on Development Economies, Washington, D.C., April 30 and May 1.
- Ruzindana, Augustine, 1997, "The Importance of Leadership in Fighting Corruption in Uganda," in *Corruption in the Global Economy*, ed. by Kimberly Ann Elliott (Washington: Institute for International Economics), pp. 133–146.
- Shleifer, Andrei, 1996, "Government in Transition," HIER Discussion Paper No. 1783 (Boston, Massachusetts: Harvard Institute for Economic Research).
- ——, and Robert W. Vishny, 1993, "Corruption," *Quarterly Journal of Economics*, Vol. 108 (August), pp. 599–617.
- Simis, Constantine M., 1982, USSR: The Corrupt Society. The Secret World of Soviet Communism (New York: Simon and Schuster).

- Sjaifudian, Shetifah, 1997, "Graft and the Small Business," Far Eastern Economic Review, October 16, p. 32.
- Tanzi, Vito, 1995a, "Corruption, Arm's-Length Relationships, and Markets," in The Economics of Organised Crime, ed. by Gianluca Fiorentini and Sam Peltzman (Cambridge, Massachusetts: Cambridge University Press), pp. 161–180.
- ———, 1995b, "Government Role and the Efficiency of Policy Instruments," IMF Working Paper 95/100 (Washington: International Monetary Fund). Also published in *Public Finance in a Changing World*, ed. by Peter Birch Sørensen (New York: Macmillan), pp. 51–69.
- ——, 1998, "Corruption and the Budget: Problems and Solutions," in *Economics of Corruption*, ed. by Arvind K. Jain (Boston, Massachusetts: Kluwer Academic Publishers), pp. 111–28.
- ——, and Hamid Davoodi, 1997, "Corruption, Public Investment, and Growth," IMF Working Paper 97/139 (Washington: International Monetary Fund).
- Tanzi, Vito, and Ludger Schuknecht, 1997, "Reconsidering the Fiscal Role of Government: The International Perspective," *American Economic Review*, *Papers and Proceedings*, Vol. 87 (May), pp. 164–8.
- Theobald, Robin, 1990, Corruption, Development, and Underdevelopment (Durham, North Carolina: Duke University Press).
- Tullock, Gordon, 1996, "Corruption Theory and Practice," *Contemporary Economic Policy*, Vol. 14 (July), pp. 6–13.
- van Tulden, Frank, and Abraham van der Torre, 1997, "Crime and the Criminal Justice System: An Economic Approach," paper presented at the 53rd Congress of the International Institute of Public Finance, Kyoto, Japan, August.
- Van Rijckeghem, Caroline, and Beatrice Weder, 1997, "Corruption and the Rate of Temptation: Do Low Wages in the Civil Service Cause Corruption?" IMF Working Paper 97/73 (Washington: International Monetary Fund).
- von Klimo, Arpad, 1997, "Fra Stato Centralistico e Periferia. Alti Funzionari Statali in Italia e nella Germania Prussiana dal 1870 al 1914," in *Centralismo e Federalismo nel XIX e XX Secolo, Un Confronto tra la Germania e Italia*, ed. by Oliver Janz and Pierangelo Schiero (Bologna: Il Mulino).
- Weber, Max, 1947, *The Theory of Social and Economic Organization* (London: The Free Press of Glencoe).
- Wei, Shang-Jin, 1997a, "How Taxing Is Corruption on International Investors?" NBER Working Paper No. 6030 (Cambridge, Massachusetts: National Bureau of Economic Research).