Corruption: Causes, Consequences, and Agenda for Further Research

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What do we know about corruption, how do we know it, and what steps do we need to take to improve our understanding of corruption and enhance governments' effectiveness in combating it?

OVER THE LAST few years, the issue of corruption—the abuse of public office for private gain—has attracted renewed interest, both among academics and policymakers. There are a number of reasons why this topic has come under fresh scrutiny. Corruption scandals have toppled governments in both major industrial countries and developing countries. In the transition countries, the shift from command economies to free market economies has created massive opportunities for the appropriation of rents (that is, excessive profits) and has often been accompanied by a change from a well-organized system of corruption to a more chaotic and deleterious one. With the end of the cold war, donor countries have placed less emphasis on political considerations in allocating foreign aid among developing countries and have paid more attention to cases in which aid funds have been misused and have not reached the poor. And slow economic growth has persisted in many countries with malfunctioning institutions. This renewed interest has led to a new flurry of empirical research on the causes and consequences of corruption.

Economists know quite a bit about the causes and consequences of corruption. An important body of knowledge was acquired through theoretical research done in the 1970s by Jagdish Bhagwati, Anne Krueger, and Susan Rose-Ackerman, among others (Mauro, 1996). A key principle is that corruption can occur where rents exist—typically, as a result of government regulation—and public officials have discretion in allocating them. The classic example of a government restriction resulting in rents and rent-seeking behavior is that of an import quota and the associated licenses that civil servants give to those entrepreneurs willing to pay bribes.

More recently, researchers have begun to test some of these long-established theoretical hypotheses using new cross-country data. Indices produced by private rating agencies grade countries on their levels of corruption, typically using the replies to standardized questionnaires by consultants living in those countries. The replies are subjective, but the correlation between indices produced by different rating agencies is very high, suggesting that most observers more or less agree on how corrupt countries seem to be. The high prices paid to the rating agencies by their customers (usually multinational companies and international banks) constitute indirect evidence that the information is valuable.

These indices are obviously imperfect owing to their subjective nature, but can yield useful insights.

Causes of corruption

Since the ultimate source of rent-seeking behavior is the *availability* of rents, corruption is likely to occur where restrictions and government intervention lead to the presence of such excessive profits. Examples include trade restrictions (such as tariffs and import quotas), favoritist industrial policies (such as subsidies and tax deductions), price controls, multiple exchange rate practices and foreign exchange allocation schemes, and government-controlled provision of credit. Some rents may arise in the absence of government intervention, as in the case of natural resources, such as oil, whose supply is limited by nature and whose extraction cost is far lower than its market price. Since abnormal profits are available to those who extract oil, officials who allocate extraction rights are likely to be offered bribes. Finally, one would expect that corruption is more likely to take place when civil servants are paid very low wages and often must resort to collecting bribes in order to feed their families.

While all of the hypotheses described above are empirically testable, in the sense that data are available for that purpose, only a few have actually been tested. What empirical studies have been done support certain hypotheses: namely, that there is less corruption where there are fewer trade restrictions; where governments do not

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engage in favoritist industrial policies; and perhaps where natural resources are more abundant; and that there is somewhat less corruption where civil servants are paid better, compared with similarly qualified workers in the private sector (Van Rijckeghem and Weder, 1997).

Consequences of corruption

From economic theory, one would expect corruption to reduce economic growth by lowering incentives to invest (for both domestic and foreign entrepreneurs). In cases where entrepreneurs are asked for bribes before enterprises can be started, or corrupt officials later request shares in the proceeds of their investments, corruption acts as a tax, though one of a particularly pernicious nature, given the need for secrecy and the uncertainty as to whether bribe takers will live up to their part of the bargain. Corruption could also be expected to reduce growth by lowering the quality of public infrastructure and services, decreasing tax revenue, causing talented people to engage in rent-seeking rather than productive activities, and distorting the composition of government expenditure (discussed below). At the same time, there are some theoretical counterarguments. For example, it has been suggested that government employees who are allowed to exact bribes might work harder and that corruption might help entrepreneurs get around bureaucratic impediments.

One specific channel through which corruption may harm economic performance is by distorting the composition of government expenditure. Corrupt politicians may be expected to spend more public resources on those items on which it is easier to exact large bribes and keep them secret—for example, items produced in markets where the degree of competition is low and items whose value is difficult to monitor. Corrupt politicians might therefore be more inclined to spend on fighter aircraft and large-scale investment projects than on textbooks and teachers' salaries, even though the latter may promote economic growth to a greater extent than the former.

Empirical evidence based on cross-country comparisons does indeed suggest that corruption has large, adverse effects on private investment and economic growth. Regression analysis shows that a country that improves its standing on the corruption index from, say, 6 to 8 (0 being the most corrupt, 10 the least) will experience a 4 percentage point increase in its investment rate and a 0.5 percentage point increase in its annual per capita GDP growth rate

(Mauro, 1996). These large effects suggest that policies to curb corruption could have significant payoffs. The association between corruption and low economic growth remains broadly unchanged when estimated for a group of countries with extensive red tape. Therefore, there is no support for the claim that corruption might be beneficial in the presence of a slow bureaucracy. The most important channel through which corruption reduces economic growth is by lowering private investment, which accounts for at least one-third of corruption's overall negative effects. At the same time, the remaining two-thirds of the overall negative effects of corruption on economic growth must be felt through other channels, including those mentioned above. While it is difficult to disentangle those other channels, there is some evidence that one of them—the distortion of government expenditure—plays a significant role.

Based on cross-country comparisons, it seems that corruption alters the composition of government expenditure: specifically, corrupt governments spend less on education and perhaps health, and probably more on public investment. Regression analysis shows that a country that improves its standing on the corruption index from 6 to 8 will typically raise its spending on education by ½ of 1 percent of GDP, a considerable impact. This result is a matter for concern, because there is increasing evidence that educational attainment fosters economic growth.

Of course, empirical results related to a phenomenon that is, by its very nature, difficult to measure must be treated with a high degree of caution. Two issues that merit special attention in this context are those of causality and the possible role of other forms of institutional inefficiency.

Why do countries judged to be corrupt experience slow economic growth? Is it that corruption harms growth or simply that low growth leads consultants to give bad corruption grades to a country? To deal with this issue, one can take variables (such as a country's colonial history or the extent to which its population is divided along ethnolinguistic lines) that happen to be correlated with corruption but have no effect on economic growth or government spending other than through their impact on the efficiency of institutions, and use them as instrumental variables in the regression analysis. Through this statistical trick, it is possible to get around problems relating to the subjectivity of the corruption indices, and it can be shown that corruption—together with other forms

of institutional inefficiency—*causes* low economic growth.

Corruption is most prevalent where there are other forms of institutional inefficiency, such as political instability, bureaucratic red tape, and weak legislative and judicial systems. This raises the question of whether it can be established that corruption, rather than other factors correlated with it, is the cause of low economic growth. Regression analysis provides some evidence that if one controls for other forms of institutional inefficiency, such as political instability, corruption can still be shown to reduce growth. Nevertheless, it is hard to show conclusively that the cause of the problem is corruption alone, rather than the institutional weaknesses that are closely associated with it. The truth is that probably all of these weaknesses are intrinsically linked, in the sense that they feed upon each other (for example, red tape makes corruption possible, and corrupt bureaucrats may increase the extent of red tape so they can extract additional bribes) and that getting rid of corruption helps a country overcome other institutional weaknesses, just as reducing other institutional weaknesses helps it curb corruption.

Agenda for further research

While there is a well-established body of theoretical knowledge, as well as some tentative results on the causes and consequences of corruption, several more questions need to be answered to enable governments to design effective policies aimed at curbing corruption.

If the costs of corruption are so high, why don't governments get rid of it? A possible answer is that once a corrupt system is in place, and a majority of people operate within that system, individuals have no incentive to try to change it or to refrain from taking part in it, even if everybody would be better off if corruption were to be eliminated. Consider the following examples:

• You live in a society where everybody steals. Do you choose to steal? The probability that you will be caught is low, because the police are very busy chasing other thieves, and, even if you do get caught, the chances of your being punished severely for a crime that is so common are low. Therefore, you too steal. By contrast, if you live in a society where theft is rare, the chances of your being caught and punished are high, so you choose not to steal.

• You are a new junior civil servant in an administration where everybody, including your superiors, is very corrupt. Somebody

offers you a bribe to help him avoid paying taxes. You decline the offer. A few hours later, you receive a telephone call from your boss, who would have liked a cut of your bribe. Your boss suggests that if you treat a friend nicely (by accepting the bribe), you may be promoted, while if you don't, you will be transferred to a remote provincial office. You then take the bribe and share it with your boss and colleagues. If, instead, the administration in which you work is very honest, you are likely to behave honestly to avoid the risk of being fired.

• Individuals A and B are members of the same government. Suppose, on the one hand, that A is very corrupt and has established a private bribe-collection system for her own gain. The need to pay substantial bribes reduces entrepreneurs' incentives to invest and imposes a significant burden on economic growth. Citizens realize that economic growth is being harmed by the corrupt government, though they may not know exactly who is soliciting bribes. Therefore, they decide not to reelect the government. This shortens B's horizon, making him more inclined to extract a large proportion of current output and to disregard any ensuing adverse effects on future output. In other words, B will seek to obtain a large slice of the cake today since he knows that the government that he participates in will soon be ousted. On the other hand, following a similar line of reasoning, if A does not collect bribes, then B will also refrain from doing so.

The last example may provide an explanation not only for the persistence of corruption but also for the empirical observation that, on average, countries that are more corrupt tend to be more politically unstable. It also suggests that both corruption and political instability may result from the failure of members of the same government or ruling elite to coordinate their actions. In that sense, corruption and political instability may be two sides of the same coin. This example may fit the cases of countries that are bedeviled by frequent coups whereby corrupt regimes succeed one another. At the same time, it does not explain a number of other relevant cases, such as those of dictators who have remained in power for many years by allowing their supporters to collect large bribes, or those of governments formed by groups of individuals who have been able to agree on bribe levels that are high, but not so high as to cause them to be ousted.

All of the above examples show that once corruption has become ingrained, it is very difficult to get rid of. As a result, corruption tends to persist, together with its adverse consequences. This leads to an important policy conclusion, which is consistent with international experience over the past few decades. Attempts to eliminate corruption tend to succeed when reforms are undertaken in a very sudden and forceful manner and are supported at the highest levels of government. However, an equally relevant question is what characteristics make countries more likely to fall into a high-corruption, low-growth trap.

Corruption breeds poverty, but does poverty breed corruption? One striking empirical finding is that poorer countries are usually considered to be more

> ## "Corruption and political instability may be two sides of the same coin."

corrupt. This result must be treated with caution, since it may well be driven by the observers' perceptions. However, if one assumes for a moment that this finding reflects a genuine correlation, it may be useful to explore its sources. We have seen that there is evidence that corruption lowers economic growth, thereby breeding poverty over time. At the same time, poverty itself might cause corruption, perhaps because poor countries cannot devote sufficient resources to setting up and enforcing an effective legal framework, or because people in need are more likely to abandon their moral principles. Researchers have begun to analyze the link between civil servants' wages and the extent of corruption. It has been suggested that reasonable wages are a necessary condition for avoiding corruption, though not a sufficient one.

Which forms of corruption are worse? Available indices of corruption are general and do not distinguish between high-level corruption (such as kickbacks paid to a defense minister in exchange for his country's purchase of expensive jet fighter aircraft) and low-level corruption (such as petty bribes paid to a junior civil servant for expediting the issuance of a driver's license). Nor do they distinguish between well-organized corruption and chaotic corruption. (When corruption is well organized, the required amount and appropriate recipient of a bribe are well known, and payment guarantees that the

desired favor will be obtained.) Therefore, we still do not know which kinds of corruption are more deleterious and should be tackled first. Country-specific studies and anecdotal evidence suggest that high-level and low-level corruption tend to coexist and reinforce each other. Thus, this distinction may not be relevant. On the other hand, the distinction between well-organized corruption and chaotic corruption may be more relevant, since a fairly convincing theoretical case can be made that the latter has worse effects than the former.

Under a well-organized system of corruption, entrepreneurs know whom they need to bribe and how much to offer them, and are confident that they will obtain the necessary permits for their firms. It has also been argued that well-organized corruption is less harmful because, under such a system, a corrupt bureaucrat will take a clearly defined share of a firm's profits, which gives him an interest in the success of the firm. In contrast, under chaotic corruption, entrepreneurs may need to bribe several officials, with no guarantee either that they will not face further demands for bribes or that the permits they seek will actually be delivered. In addition, if multiple agents request bribes from the same entrepreneur without coordinating bribe levels among themselves, they are likely to make excessive demands, with the result that entrepreneurial activity comes to a halt. While chaotic corruption seems a priori to be more deleterious than well-organized corruption, there is currently little empirical data available to test this hypothesis.

What is being done, and what else could be done? Many countries and institutions have paid increasing attention to the problem of corruption, and the debate on possible policy options is still ongoing. In deciding how to allocate aid funds, some donor countries have begun to give more importance to recipient countries' actions to curb corruption. Member countries of the Organization for Economic Cooperation and Development have acted to criminalize the bribery of foreign public officials. International institutions, which have always played an important role in reducing the scope for corruption, are now giving more prominence to the issue. For example, the IMF has always encouraged countries to liberalize their economies (for example, by eliminating trade restrictions), terminate off-budget operations, and ensure budget transparency. The guidelines on governance, which were approved by the IMF's

Executive Board in August 1997, formalize the IMF staff's involvement in such tasks.

An example of the remaining challenges. One of the most difficult policy issues is how to prevent corruption from distorting government expenditure. This important issue goes to the heart of donors' concerns about the possible misuse of aid funds. Donors find it difficult to ensure that aid funds are spent wisely, because resources are fungible. For example, a donor may give aid funds to enable the recipient country to build a school, which the recipient may indeed use for that purpose; however, the availability of aid funds to build the school makes it possible for the recipient to use the resulting savings to buy sophisticated weapons, whose purchase may provide more scope for illegally diverting funds into individuals' pockets than school construction could. How should this problem be addressed? Clearly, donor countries should pay attention to the overall composition of government spending and not focus narrowly on how their own funds have been spent, but many donors may not have sufficient resources to do this. One possible approach that has been suggested is to have an international institution monitor the overall composition of government expenditure, as a service to both the recipient country's citizens and the donor community. This approach would not, however, be easy to implement. Recipient countries would probably resist attempts by the rest of the world to play a role in determining the composition of their public spending. In addition, as a practical matter, it may be difficult to ensure that spending items are not simply relabeled, with no real improvement in the composition of government expenditure.

How should policy effectiveness be assessed over the next decade? We have a reasonable theoretical understanding of the causes and consequences of corruption, and have begun to get a sense of the extent of these relationships through empirical research. A consensus is emerging that corruption is a serious problem, and several bodies in the international arena have begun to take policy measures to curb it. At the policy level, although we may still be at the stage of learning by doing, action is being taken. It is important to ensure that ten years from now, we can look back on today's focus on corruption and observe that some concrete results were attained in this domain. To that end, those bodies that are taking action against corruption ought to establish criteria to evaluate their policies. Each entity would need to devise its own evaluation criteria, and it should do that now, so that the effectiveness of its policies can be assessed accurately and fairly over the next decade.

The need to define "concrete results" might appear to be a tall order in an area where quantification is difficult. A place to begin, however, could be the well-established body of knowledge on the causes of corruption. For example, efforts to curb corruption could be assessed on the basis of how effective they were in bringing about the implementation of policies known to reduce corruption, such as the elimination of government restrictions that create rents. F&D

Suggestions for further reading:
Paolo Mauro, 1996, "The Effects of Corruption on Growth, Investment, and Government Expenditure," IMF Working Paper 96/98 (Washington: International Monetary Fund).
Vito Tanzi and Hamid Davoodi, 1997, "Corruption, Public Investment, and Growth," IMF Working Paper 97/139 (Washington: International Monetary Fund).
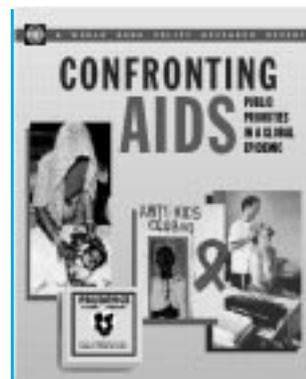Caroline Van Rijckeghem and Beatrice Weder, 1997, "Corruption and the Rate of Temptation: Do Low Wages in the Civil Service Cause Corruption?" IMF Working Paper 97/73 (Washington: International Monetary Fund).