

THE CAUSES OF CORRUPTION

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Corruption: what and where

Corruption is a persistent feature of human societies over time and space. The sale of parliamentary seats in the “rotten boroughs” of Great Britain before the Great Reform Act of 1832 and “machine politics” in the expanding immigrant cities in the United States at the turn of the 19th century are just two historical examples. Contemporaneous examples also abound, and not only from developing countries, such as Nigeria, India and the Philippines, and transition economies, such as Russia. The recent “expenses scandal” that engulfed the House of Commons in the United Kingdom serves as a timely reminder that corruption regularly shows its face also in the developed world.

While corruption is usually recognised when confronted with it, it has proved more difficult to find and agree on a precise and encompassing definition. Most economists, however, are satisfied with some version of the following definition: “corruption is an act in which the power of public office is used for personal gain in a manner that contravenes the rules of the game” (Jain 2001) or corruption is “the sale by government officials of government property for personal gain” (Shleifer and Vishny 1993). The latter is

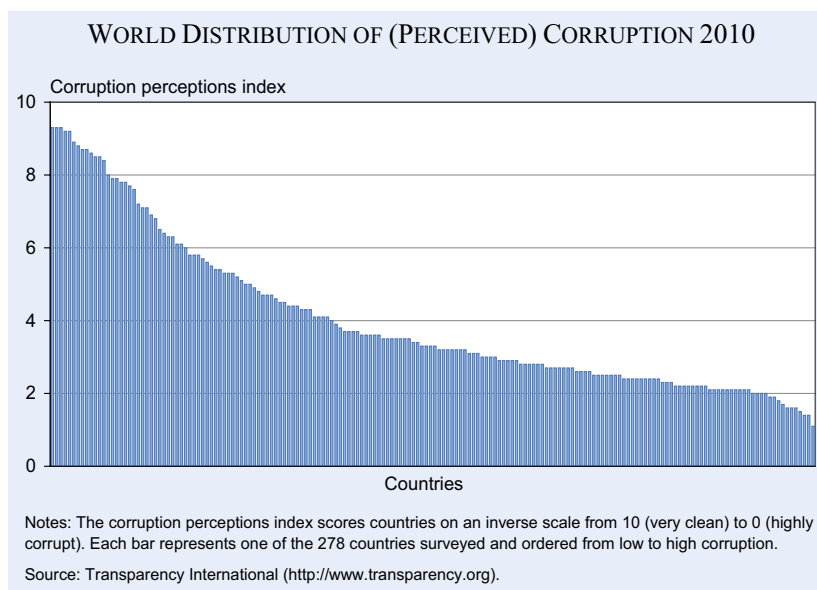
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also the definition that the World Bank employs. Examples of corruption thus defined include taking bribes in return for issuing licenses; accepting a kick-back for granting a defense contract; not enforcing rules and regulations in exchange for a payment and so on.

The Figure provides a snap-shot of the world distribution of corruption in 2010 based on the corruption perception index published yearly by Transparency International. Each bar represents one of the 178 countries surveyed in 2010. The index ranges from 0 to 10, with a score of 10 indicating absence of corruption and a score of 0 indicating widespread corruption. To the left with high index values, we find the Scandinavian countries and Singapore, in the middle of the distribution we find countries like Thailand and Greece, while the most corrupt countries located to the far right include Iraq, Afghanistan and Somalia. A major challenge for economists and other social scientists interested in the causes of corruption and in offering advice to policy makers is to explain not only why corruption varies over time, as suggested by the two historical examples given above, but also to explain the distribution of corruption across the world illustrated in the Figure.



Figure



A conceptual framework

To structure thinking about a complex issue such as corruption, it is useful to have a conceptual framework in mind. At the risk of over-simplifying a vast theoretical literature on the causes of corruption, surveyed superbly in, e.g., Tanzi (1998), Rose-Ackerman (1999) or Jain (2001), at least three conditions are necessary for corruption in the public sector to arise and persist:

1. Discretionary power: the relevant public officials (bureaucrats, politicians, etc.) must possess the authority to design or administer regulations and policies in a discretionary manner.
2. Economic rents: the discretionary power must allow extraction of (existing) rents or creations of rents that can be extracted.
3. Weak institutions: the incentives embodied in political, administrative and legal institutions must be such that public officials are left with an incentive to exploit their discretionary power to extract or create rents.

Much, if not all, theoretical work on the causes of corruption can be linked back to these three basic conditions. Two contrasting views about how these conditions interact, however, stand out. The first view is the “institutional view”. It emphasises the role of institutions (broadly defined to include political, bureaucratic, juridical and economic institutions) and presumes a causal order running from weak institutions to corruption to poor economic outcomes. To give an example, the absence of democratic accountability may foster political corruption which, in turn, encourages rent extraction and excessive regulation of economic activity. Corruption is, in other words, seen as the symptom that something else, more fundamental, is wrong. Of course, feedbacks from economic conditions to corruption are usually also acknowledged as being important because they affect the presence or absence of economic rents, and it is also possible over longer time spans to imagine that corruption could be the cause of weak institutions. Yet, the organising and in many cases very powerful analytic principle is to look for weaknesses in the institutional framework to find the root causes of corruption.

The second view is the “social interactions view”. It emphasises that corruption is the outcome of self-reinforcing social processes and downplays the causal role of institutions. The basic idea can be illustrated with an example along the lines of Andvig and

Moene (1990). Corrupt colleagues are less likely to report that you are corrupt than honest colleagues simply because corrupt colleagues do not want to risk triggering an external inquiry. This makes the probability of being discovered/reported a decreasing function of how many others in the relevant social group take bribes. The incentive of any one individual to accept a bribe is obviously stronger when the likelihood of being discovered is lower. Combining these plausible assumptions, two types of stable situations can emerge: one in which no one takes bribes because anyone who does would be reported and punished, and one in which everyone take bribes because no one will ever be reported and caught. In other words, societies with otherwise very similar institutions and economic conditions may end up with very different levels of corruption. Shifts in institutions and economic conditions may trigger a swing from one equilibrium to the other, but it requires big shifts. According to this view, the key to understanding corruption is to understand how underlying social interactions work.

Cross-national studies on the causes of corruption

At the macroeconomic level, much of what we know about the causes of corruption originates from cross-national comparisons of survey-based corruption indices. These indices can be divided, roughly speaking, into two categories. The first category contains indices based on corruption perceptions, i.e., subjective assessments by business consultants, by local and international businessmen or by ordinary citizens about how much corruption there is in a given country. The three most popular indices of this type are the Corruption Perception Index, published by Transparency International (and shown in the Figure), the Control of Corruption Index, published by the World Bank, and the Corruption Index published by the International Country Risk Guide. These measures of corruption have many weaknesses (see, e.g., the extensive discussion in Lambsdorff 2005); one of the major ones being that there may be a significant gap between perceptions and facts. The second category includes indices of experienced corruption. As the name suggests, these derive from self-reported experiences with corruption. The World Bank’s World Business Environment Survey, for example, asks managers in many countries to respond to the following statement: “It is common for firms in my line of business to have to pay some irregular ‘additional’ payment to get things done”.

Clearly, these indices are also problematic because of reporting biases, etc., but other than data for a few countries on criminal convictions or legal cases related to corruption (e.g., Italy and the US, see Goel and Nelson 2011), these are the macro data available, and they have, despite their weaknesses, given a significant boost to research into the causes of corruption during the past decade. In fact, 35 (and still counting) published, empirical studies have investigated the relationship between these indices and at least 75 potential causes of corruption.

The potential causes can usefully be divided into four groups: (1) economic and demographic factors; (2) political institutions; (3) judicial and bureaucratic factors; and (4) geographical and cultural factors. The typical study limits attention to a small number of potential causes of particular interest and examines the reliability of the results by varying the set of control variables (see, e.g., Treisman 2000, Paldam 2002 or Lambsdorff (2005) for examples of this approach). Unfortunately, it is not uncommon to discover that variables – such as press freedom, the size of the public sector, economic freedom or the level of democracy – found to be significantly correlated with corruption in one study are insignificant in another which uses an alternative model specification. Moreover, Treisman (2007) points out that “standard” determinants of perceived corruption, such as GDP per capita and measures of political and bureaucratic institutions, are largely uncorrelated with measures of experienced corruption. This is clearly unsettling. One way out of the forest, originally proposed by Sala-i-Martin (1997) in a different context, is to use so-called Sensitivity Analysis to establish which of the many potential determinants or causes are robustly correlated with corruption. This involves a systematic evaluation of all possible linear (regression) models with corruption as the dependent variable and a fixed number of potential determinants (typically 3 to 5) from the target list of up to 75 as the explanatory variables. Sala-i-Martin (1997)’s crite-

riterion for robustness is that 95 percent of the cumulated density associated with the estimated coefficients on the variable of interest (e.g., GDP per capita) across all the models considered should be on one side of zero. Sturm and de Haan (2005), however, advocate going one step further and demand that a robust variable should be significant at the 5 percent level in at least 90 percent of all the regressions considered (test 1) and when there is more than one outcome variable (as is the case with corruption where one needs to study alternative indices) that this should be true for the majority of outcome variables considered (test 2). The result of such a Sensitivity Analysis applied to the determinants of five widely used corruption perception indices (including the three mentioned above) are reported in de Haan and Seldadyo (2005) and Seldadyo (2008). The Table summarises the results by listing the 12 most robust determinants of corruption and their correlation with corruption. All 12 variables pass Sala-i-Martin (1997)’s criterion for robustness for at least one corruption index, but we see that only six, in addition, pass test 1 and that only two pass test 2. Based on

Table

The top-12 most robust determinants of cross-national corruption perceptions

Variable name	Group	Sign of correlation	Test 1	Test 2
Government effectiveness	(3)	(–)	Yes	Yes
Rule of law	(3)	(–)	Yes	Yes
GDP per capita	(1)	(–)	Yes	No
Regulatory quality	(3)	(–)	Yes	No
Political polarisation	(2)	(–)	Yes	No
Protestant fraction of the population	(4)	(–)	Yes	No
Presidentialism	(2)	(–)	No	No
Absolute latitude	(4)	(–)	No	No
Voice and accountability	(2)	(–)	No	No
Wage bill in % of GDP	(3)	(+)	No	No
Population size	(1)	(+)	No	No
Economic freedom	(1)	(–)	No	No

Notes: For the full set of variables included in the Sensitivity Analysis and for information on definitions and sources, see Appendix 2 in Seldadyo (2008). The 12 variables are the only ones that pass Sala-i-Martin’s criterion for robustness for at least one of the five corruption perception indices studied. “Group” refers to the four categories of causes of corruption listed in the main text. “Sign of correlation” refers to the sign of the coefficient on the relevant variable in 95% of the regressions. The outcome variable of these regressions is one of the five corruption indices, ordered such that higher values mean higher levels of corruption. Each regression includes up-to-three potential determinants, lagged by a suitable number of years. “Test 1” requires that the variable is significant at the 5% level in at least 90% of all the regressions considered. “Test 2” requires that test 1 is passed for three of the five corruption perception indices considered.

Source: Seldadyo (2008: chapter 3).

this, the two most robust determinants of corruption are “government effectiveness” and “rule of law”, from the World Bank’s Governance Matter Database (Kaufmann et al. 2006). Both of these variables correlate negatively with perceived corruption, however measured. “Government effectiveness” is a composite index related to the quality of public services, the quality of the bureaucracy, the competency of civil servants, and to the independence of the civil service from political pressures, while “rule of law” is an index related to the extent to which agents have confidence in and abide the rules of society, the effectiveness and predictability of the judiciary and the enforceability of contracts. A single variable from each of the groups also passes test 1 (but not test 2). They are GDP per capita, the degree of political polarisation, regulatory quality and the fraction of Protestants in the population, which are all negatively correlated with corruption.

While the Sensitivity Analysis methodology is helpful in finding robust correlations, it does not resolve the much more thorny issue of causality. In fact, for many of the variables that make it to top-12, we suspect that the causality might run the other way. For example, perhaps the government is effective because corruption is low; or agents have trust in the rule of law because corruption is low; and GDP per capita is high because of low corruption, rather than the other way around.¹

The corruption-development nexus

The question of causality is particularly pressing in the case of the corruption-development nexus. Does the strong and robust correlation between GDP per capita and the various corruption indices tell us that development reduces corruption or does it tell us that corruption is an obstacle to development? Both directions of causation are plausible. On the one hand, corruption feeds on rents, and corrupt public officials have an incentive to create and maintain rent-creating but inefficient economic policies. The likely consequence of such inefficiencies is a reduction in national income. Likewise, corruption often works as a tax on factor accumulation and on investments in manufactured and human capital. This can retard economic growth. On the other hand, high levels of national income may be associated with a

greater willingness to combat corruption or, more subtly, high economic growth may provide incentives for public officials to eliminate corruption-induced economic inefficiencies in the present in order to hang on to their office or job for the future where even bigger rents can be extracted (Aidt and Dutta 2008). It is, of course, also possible that GDP per capita and corruption are jointly determined and caused by the same underlying institutional or cultural factors.

Recent research has made some headway in sorting out this puzzle. When applied at the macro level, the theories of corruption based on social interaction effects suggest that corruption and economic development may feed on each other and that we should, therefore, not expect to observe simple linear and unidirectional relationships between proxies for the two. Corruption-development traps may lock some countries into a “bad” equilibrium with high-corruption-low-growth, while others may converge to a “good” equilibrium with low-corruption-high-growth (Blackburn et al. 2006). Aidt et al. (2008) and Aidt (2009) model such interdependencies empirically and find robust evidence that countries endogenously sort themselves into different corruption-growth regimes depending on the initial quality of their political institutions, and that, in the short to medium run, corruption and growth feed on each other: high growth tends to lower corruption which, in turn, enhances the growth potential. Moreover, using instrumental variables to isolate the link from corruption to growth, it appears that conditional on converging to the “bad” equilibrium, corruption has little effect on growth, while the impact is large and negative for countries converging to the “good” equilibrium.

Gundlach and Paldam (2009), on the other hand, inquire into the causal order over the very long run. Their starting point is the widely accepted assumption that all countries had more or less the same (low) level of income per capita about 200 years ago and that the actual cross-national income distribution today, therefore, effectively represents differences in long-run growth rates. The work by Diamond (1997), moreover, suggests that deep pre-historical factors, such as the number of domesticable big mammals in pre-history, the number of domesticable wild grasses in pre-history, climatic conditions favourable for agriculture, relative East–West orientation, etc., sowed the seeds that explain cross-national income patterns today. Since one can reasonably assume that such factors are exogenous to cur-

¹ Seldadyo (2008) uses lagged values of the potential determinants in his Sensitivity Analysis to partially address this issue.

rent corruption patterns, they can, in principle, be used as instruments for national income in an estimation of the income effect on corruption. Based on this approach, Gundlach and Paldam (2009) conclude unambiguously that the long-run causality runs from (high) income to (low) corruption or as they put it, societies grow honest. Adding the two pieces of evidence, it appears that in the short to medium run, corruption and economic development feed on each other in a self-reinforcing social process,² while in the very long run, the process of development dominates and is what causes corruption levels to fall. The precise mechanism through which this is supposed to happen remains, however, unclear, but we may conjecture that it has to do with investments in stronger and more robust institutions.

Concluding remarks

So what are the causes of corruption? The short answer is that many factors play a role and in different ways at different time horizons. Yet, for practical purposes, applying the two general principles – institutional weaknesses and social interaction effects – alluded to above will in most cases not miss the target too badly and, therefore, offer a workable guide to those interested in understanding the causes of corruption and in doing something about them.

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² Paldam (2002) refers to this as seesaw dynamics.