

What Is Corruption and Why Does It Matter?

The Millennium Development Goals (MDGs), established in 2000 under the auspices of the United Nations, aimed to reduce extreme poverty to half of its 1990 level, by 2015. This goal was achieved ahead of schedule, by 2010, but as impressive as this achievement is, the gains were not distributed equally across the world: 94% of the reduction in the number of people living in extreme poverty occurred in China.¹ In Paul Collier's (2007) terminology, a "bottom billion" – 1.2 billion people – still live in extreme poverty (less than \$1.25 per day) and 2.4 billion live in poverty (less than \$2 per day).²

Poverty, poor health, low life expectancy, and an unequal distribution of income and wealth remain endemic. Many poor countries have had very low or negative growth rates that challenge convergence models of development.³ Others have weak economic records in spite of a well-educated labor force. Even some countries that are well endowed with natural resources have poor growth records, low per capita income, and massive inequality. The MDGs set specific global development targets, but fulfilling those goals at the country level has proven much more challenging in some countries than in others.

World Bank, "Poverty Overview (Results)," <http://www.worldbank.org/en/topic/poverty/overview#3> (accessed June 20, 2014).

Income is measured in real purchasing power parity U.S. dollars with a base year of 2005. See World Bank, "Poverty Overview (Context)," <http://www.worldbank.org/en/topic/poverty/overview#1> or http://www.un.org/millenniumgoals/pdf/Ggoal_1_fa.pdf (accessed June 20, 2014).

(Convergence models argue that, as less-developed countries tend to grow faster than more-developed countries, the former catch up with the latter. Such convergence was expected to occur in the latter half of the twentieth century, but was not realized for many countries, so that the gap between rich and poor grew rather than shrank.

The world's leaders continue to debate how to move forward. The MDGs, now called Sustainable Development Goals (SDGs), have been reformulated with the shortfalls of the first effort in mind.⁴ Recognizing the remaining problems of low growth and development, the World Bank in 2013 announced the establishment of a new mission: eliminating extreme poverty by 2030.⁵ Recent data suggest that this goal is overly ambitious for a variety of reasons, including the fact that a large number of people were just below the original cutoff.⁶ However, one part of the explanation is dysfunctional public and private institutions that both hold back growth and restrict the flow of benefits to those at the bottom of the income distribution.⁷ Neither public funds nor outside assistance are used as effectively as they could be. Low-income countries and those with weak growth records are often in difficulty because they are unable to use their human and material resources to further development and to aid the poorest.⁸ These countries need institutional reform, but such reform

⁴ United Nations, "Sustainable Development Goals," <http://www.un.org/sustainabledevelopment/> (accessed July 22, 2015).

⁵ The exact goal is for no more than 3% of the world's population to live on less than \$1.25 per day measured in 2005 dollars. See, e.g., World Bank, "Poverty Overview (Strategy)," <http://www.worldbank.org/en/topic/poverty/overview#2> (accessed September 3, 2015).

⁶ "Free Exchange: Poverty's Long Farewell," *The Economist*, February 28, 2015. <http://www.economist.com/news/finance-and-economics/21645220-goal-ending-poverty-2030-worthy-increasingly-out-reach-pov-ty> (accessed September 3, 2015). The World Bank (2015) recognizes that the goal is unrealistic and urges a focus on both overall growth and its distribution. A World Bank working paper, Yoshida, Uematsu, and Sobrado (2014), demonstrates some of the flaws in the earlier projections. Lakner, Negre, and Prydz (2014) show how a combination of policies that promote growth and provide targeted benefits to the very poor can combine to produce substantial reductions in the number in absolute poverty.

⁷ "Institutions are the humanly devised constraints that structure political, economic and social interaction" (North 1991: 97). These include constitutions, laws, rules, customs, and taboos. We also include entities that are commonly referred to as institutions such as bureaucracies, legislatures, courts, schools and other educational institutions, banks and other financial institutions, etc.

⁸ Kilby (1995) found that World Bank projects were more likely to be given an unsatisfactory rating by the Bank's Operations Evaluation Department if borrower countries ranked poorly on cross-country measures of political instability and corruption. Knack and Keefer (1995) examine the impact of government institutions on investment and growth. Their measure of government quality combines indices of corruption, expropriation risk, rule of law, risk of contract repudiation by the government, and the quality of the bureaucracy. The study examined rates of economic growth for 97 countries over the period from 1974 to 1989. The authors show that measures of the quality of government institutions do at least as well as measures of political freedoms, civil liberties, and the frequency of political violence in explaining investment and growth.

In difficult. Dams, highways, and port facilities are technically straightforward. Reforming government and nurturing a strong private sector are more subtle and difficult tasks that cannot be reduced to an engineering blueprint. The United Nations' recently proposed SDGs include fighting corruption specifically to promote equity, justice, and peace, but reducing corruption will help achieve all the goals.⁹

Until the mid-1990s, international development organizations, such as the World Bank and the International Monetary Fund (IMF), mostly took institutions as given; since then, some (most notably the World Bank) have made institutional reform and good governance priorities. Bilateral lending or aid is also often conditional on staying off "black lists" that highlight corruption, drug trafficking, and other illicit activities.¹⁰ Several factors converged to contribute to this change in policy. The end of the Cold War reduced incentives for the more powerful countries to tolerate corruption in their allies (Theobald 1999). Transitions from centrally planned economies to market economies opened up new opportunities for both illicit and illicit profit (Rose-Ackerman 1998b). Accelerated globalization and a 1977 U.S. law criminalizing overseas bribery¹¹ pressured governments to reduce unfair dealing and firms to reexamine their overseas practices. The finding of Transparency International (TI) and the publication of its Corruption Perceptions Index (CPI)¹² raised international concern about corruption and caused alarm (and, often, anger) in some poorly rated countries

⁹ The specific goal is "Goal 16: promote just, peaceful, and inclusive societies." The subgoal also calls on countries to fight money laundering and organized crime. United Nations, "Sustainable Development Goals," <http://www.un.org/sustainabledevelopment/sustainable-development-goals/> (accessed July 22, 2015). We explain the importance of combating all three together in Chapter 9.

¹⁰ See, e.g., FATF, "High-risk and Non-cooperative Jurisdictions: FATF Public Statement – June 26, 2015," <http://www.fatf-gab.org/publications/high-riskandnon-cooperativejurisdictions/documents/statement-june-2015.html> (accessed September 27, 2015) for money laundering and financing terrorists; U.S. Department of State, Directorate of Defense Trade Controls, "Country Policies and Embargoes," http://www.pndd.state.gov/embargoed_countries/index.html (accessed September 27, 2015) for arms trade; The White House, "Presidential Determination – Major Drug Transit and Drug Producing Countries for FY 2014," <http://www.whitehouse.gov/the-press-office/2013/09/13/presidential-determination-major-drug-transit-and-drug-producing-country> (accessed September 3, 2015).

¹¹ The law is the Foreign Corrupt Practices Act of 1977, Pub. L. No. 95-213, 91 Stat. 1494. TI was founded in 1993 as a NGO committed to exposing and combating corruption worldwide. Its Corruption Perceptions Index, a central part of that effort, is described in greater detail on their website and later in this chapter. The international role of TI is also discussed in Chapter 14. See www.transparency.org for further information.

(Johnston 2005). Finally, the intellectual underpinnings of development policy began to recognize the key role of public institutions (e.g., Olson 1996). The macropolicy prescriptions of the "Washington Consensus" proved to be insufficient to stimulate growth and to alleviate poverty.¹³

Development economists began to reach out to the fields of political science and sociology and to incorporate work on the functioning of institutions into their conceptual framework; this led them to confront corruption as a particularly obvious pathology.

The tensions between the capacities of developing countries and the requirements of international aid and lending organizations arise, in part, from the diverse histories and cultures of the countries involved. To critics, the international organizations do not appreciate local customs and institutions and fail to adapt their programs to fit individual countries' special circumstances. Although this is undoubtedly true in many cases, that claim is not the end of the story. Some countries' institutions are poorly adapted even to their own stated development goals, and others manifestly neglect the interests of ordinary people or of important subgroups.

Other critics question the goals of the international community, arguing that economic growth is a narrow and incomplete measure of well-being and that international institutions tend not to take into account local conditions and traditions (e.g., Stiglitz 2003; Easterly 2013). But even if one accepts that criticisms, wide differences remain across and within countries in health, education, economic opportunity, and environmental quality. Whatever one's standards of value, they vary widely around the world and are rising and falling at different rates. We do not argue here for a standard of universal value – be it per capita income, "human flourishing" in A. K. Sen's terminology (Sen 1999), ethical universalism, or impartiality. Rather we aim to show that whatever the goals of an institution or polity, corruption can undermine those goals.

We begin with a basic fact of human motivation. Differences in culture and basic values exist across the world, but there is one human trait that is both universal and central to explaining the divergent experiences of different countries. That motivating trait is self-interest. Critics call it greed.

¹³ The Washington Consensus, articulated by Williamson (1990), includes standard macro-economic prescriptions (reducing barriers to trade, establishing an independent central bank with a goal of controlling inflation, investing in human capital and infrastructure, etc.) plus privatization and deregulation. "Washington" here stands for the World Bank and the IMF, not the U.S. government. See Rodrik (2006, 2008) for a critique, a richer theoretical framework, and the incorporation of a broader range of policy options.

Economists call it utility maximization. Whatever the label, societies differ in the way they define and channel self-interest. Endemic corruption suggests a pervasive failure to tap self-interest for legitimate and productive purposes.

We can go a long way toward understanding development failures by understanding how a country's institutions manage or mismanage self-interest, and how self-interest interacts with generous and public-spirited motivations. The best case for the social value of self-interest is the archetypal competitive market where self-interest is transmuted into productive activities that lead to efficient resource use. The worst case is war – a destructive struggle over wealth that ends up destroying the resource base that motivated the fight in the first place. In between are situations in which people use resources both for productive purposes and to gain an advantage in dividing up the benefits of economic activity – called "rent seeking" by economists (e.g., Bhagwati 1974; Krueger 1974; Tullock 1993; Khan and Jomo 2000; Ngo and Wu 2009).

We explore the interaction between productive economic activity and unproductive rent seeking by focusing on the universal phenomenon of corruption in the public sector.¹⁴ Corruption, of course, also takes place in the private sector with no government officials involved, and it often has very damaging consequences.¹⁵ Such activities, although not the focus of our book, remain an important subject for research and policy reform that should complement our emphasis on the public sector. To us, public-sector corruption deserves special emphasis because it undermines development and distributional goals and conflicts with democratic and republican values.

1. What Is Corruption?

Corruption has many connotations and interpretations, varying by time and place, as well as discipline. Box 1.1 provides some examples of corrupt acts; it is an illustrative rather than a comprehensive list.¹⁶ To encompass the

¹⁴ Ironically, although self-interest is a basic assumption in economics, macroeconomic models typically assume a disinterested "benevolent social planner." Constructivists look more carefully at how policy decisions are made on both personal and political levels.

¹⁵ See, e.g., Tillman (2009) and Argandoña (2003).
¹⁶ For a more complete list of terms with definitions and examples, see Transparency International, 2009, "The Anti-Corruption Plain Language Guide," available at http://files.transparency.org/content/download/84/335/file/2009_TIPPlainLanguageGuide_EN.pdf (accessed June 28, 2014).

Box 1.1. Types of Corruption

bribery	The explicit exchange of money, gifts in kind, or favors for rule breaking or as payment for benefits that should legally be costless or be allocated on terms other than willingness to pay. Includes both bribery of public officials and commercial bribery of private firm agents.
extortion	Demand of a bribe or favor by an official as a <i>sine qua non</i> for doing his or her duty or for breaking a rule. We treat extortion as a form of bribery where the bribe taker plays an active role. (Sometimes the rule is created by the extortionist in order to exact the bribe.)
exchange of favors	The exchange of one broken rule for another.
nepotism	Hiring a family member or one with close social ties, rather than a more qualified but unrelated applicant.
cronyism	Preferring members of one's group – racial/ethnic, religious, political, or social – over members of other groups in job-related decisions.
judicial fraud	A decision based on any of the preceding types of corruption, or threats to the judge, rather than the merits of the case.
accounting fraud	Intentional deception regarding sales or profits (usually in order to boost stock prices).
electoral fraud	Manipulation of election results, through vote buying or threats to the electorate, or by falsification or destruction of votes.
public service fraud	Any activity that undermines the legal requirements of public service delivery even if no bribes are paid. For example, teachers might provide students with the correct answers or change students' responses on standardized tests (usually in order to ensure funding). Health care providers might prescribe unnecessary tests or invent patients to increase reimbursements. Civil servants might neglect their jobs for private-sector work, steal supplies for resale,

that show up for work
for private-sector work, steal supplies for resale,

embezzlement	Theft from the employer (firm, government, or NGO) by the employee.
kleptocracy	An autocratic state that is managed to maximize the personal wealth of the top leaders.
influence peddling	Using one's power of decision in government to extract bribes or favors from interested parties.
conflicts of interest	Having a personal stake in the effects of the policies one decides.

wide range of meanings, we start with TI's definition of corruption as: "the abuse of an entrusted power for private gain." This definition captures the principal-agent problem at the root of all types of economic and political corruption – bribery, embezzlement, nepotism, influence peddling, conflicts of interests, accounting fraud, electoral fraud, and so forth. The key term is "entrusted power," which refers to the tasks one is expected to perform – reviewing permit applications, passing laws, or hearing legal cases, for example – according to certain rules, written or otherwise. This power may be entrusted by an employer to an employee, or by the populace to a government leader. If one abuses entrusted power, the rules are broken, and the principal's stated goals are subverted. The harm takes two forms: first, in many cases the corrupt official acts inconsistently with his or her mandate, and second, even if he or she only takes acceptable actions in response to a payoff, the official has sold a benefit that was not supposed to be provided on the basis of willingness to pay.¹⁷ Thus, corruption includes both accepting a bribe in return for certifying an unsafe building and demanding a bribe as a condition for approving a fully compliant structure. It includes embezzling contract funds so a promised infrastructure project is delayed and over budget, as well as the simple theft of public funds in a way that inflates public budgets but with little noticeable effect on the level of public services.

¹⁷ Banerjee, Hanna, and Mullanathan (2013) and Hodgson and Jiang (2007) make rule breaking the central feature of their respective definitions. We wish to be clear, however, that the benefit provided in return for a bribe may not break any formal rules. Rule breaking might only consist of the payment of the bribe and the corresponding distortions in the distribution of the benefits and costs of public policies.

We recognize, however, that some polities may be so riddled with self-dealing that the populace cannot really be said to have "entrusted" power to politicians and officials. This can occur either because too much power is in the hands of self-interested, wealth-maximizing rulers – for example, pre-Arab Spring governments in the Middle East¹⁸ – or because the institutional framework is so weak and chaotic that there is no power "entrusted" to anyone, as in the case of Somalia from 1991 to 2012. Some governments and institutions establish goals that most of us would abhor, but efforts to undermine them can still be corrupt in our sense, even if we would applaud those who try to subvert these goals.¹⁹ A weak or autocratic state fuels corruption, and the level of corruption, in turn, makes reform difficult and undermines public trust in government institutions, producing a vicious cycle.

Some work on corruption starts with a strong commitment to a particular view of government legitimacy – most prominently the work of Rothstein and his colleagues (e.g., Rothstein and Teorell 2008) and of Mungiu-Pippidi (2013, 2014). Rothstein focuses on impartiality as a central normative goal for the state. Mungiu-Pippidi stresses "ethical universalism," but the concepts are similar, and they are analogous to North, Wallis, and Weingast's (2009) "open access orders" and Acemoglu and Robinson's (2012) "inclusive institutions." Government actions and institutions that violate these norms are then labeled corrupt.²⁰ We, instead, study a range of institutional structures that can produce incentives for payoffs and self-dealing. Analysis of the incentives for bribes, kickbacks, and other forms of self-dealing are then an input into both specific anticorruption policies and broad-based efforts at state reform. An implication of both Rothstein's and Mungiu-Pippidi's work is that if bribery undermines a ruler's effort to favor a tight elite and leads to a more impartial or universalism distribution of public benefits, then it is not corrupt. Of course, they argue that such cases are unlikely to occur, but we do not want to rule out that possibility by definition. Rather than associating clean government with a particular normative

See, e.g., Shackman (2011) on Egypt under Mubarak.
¹⁸ Corruption that undermines detestable laws is referred to as "noble cause corruption" (Miller 2005). One example of noble cause corruption is bribery to save Jews in Nazi Germany (Rose-Ackerman and Jiang 2007: 1049). If "noble cause corruption" is widely seen as acceptable, or when corrupt acts are interpreted as "noble," this indicates a need to change the underlying institutions, but, of course, in such cases, governments are very unlikely to want such change. They may focus on high-profile prosecutions instead.
¹⁹ Easterly (2013) includes many examples of corrupt acts in the process of exposing world-wide oppression, but he stops short of labeling the norm violations themselves as "corrupt."

commitment, we analyze the normative consequences of corruption under different background conditions.

II. Incentives for Corruption

We focus on corruption in the public sector, ranging from grand to petty corruption and covering many different types of public/private interactions. Grand corruption involves a small number of powerful players and large sums of money. The corrupt seek government contracts, privatized firms, and concessions; they pay legislators to pass favorable laws and cabinet ministers and agency heads to enact beneficial regulations. Heads of state may engage in outright embezzlement of public funds without the direct involvement of dishonest private firms.

Petty corruption is easier for ordinary citizens to observe and experience. Thus, bribes might be paid to avoid speeding tickets, evade taxes, or gain access to government services. Government job offers and routine procurement contracts may favor relatives, cronies, and friends with few qualifications. Grand and petty corruption may be linked together in hierarchical bureaucracies; corruption at one level can support and encourage corruption elsewhere in the organization. We concentrate on bribes and kickbacks, but we recognize that large gray areas exist, and we discuss some of the most troublesome in later chapters. We do not claim to have necessarily located the most harmful abuses of power and invite more research on the impact of borderline behavior, such as campaign spending, cronyism, and conflicts of interest.²¹

An excellent example of the difficulty of distinguishing implicit corruption from and vaguely defined nature of the transaction.
 acceptable business practices is the controversy over Western banks hiring practices in China. Several of these banks had special hiring tracks for the sons and daughters of top Chinese officials. In condemning this practice, Chinese law enforcement officials point to the possibility that these hires were either *quid pro quo* for the approval of particular deals or else improved the banks' future prospects. J. P. Morgan's practices hit the newspapers in the summer of 2013, and in May 2014 Hong Kong's Independent Commission against Corruption arrested Morgan's former head of investment banking. One internal e-mail mentioned the "existing and potential business opportunities" that could arise from hiring the son of a key official. See Neil Gough and Michael Forsythe,

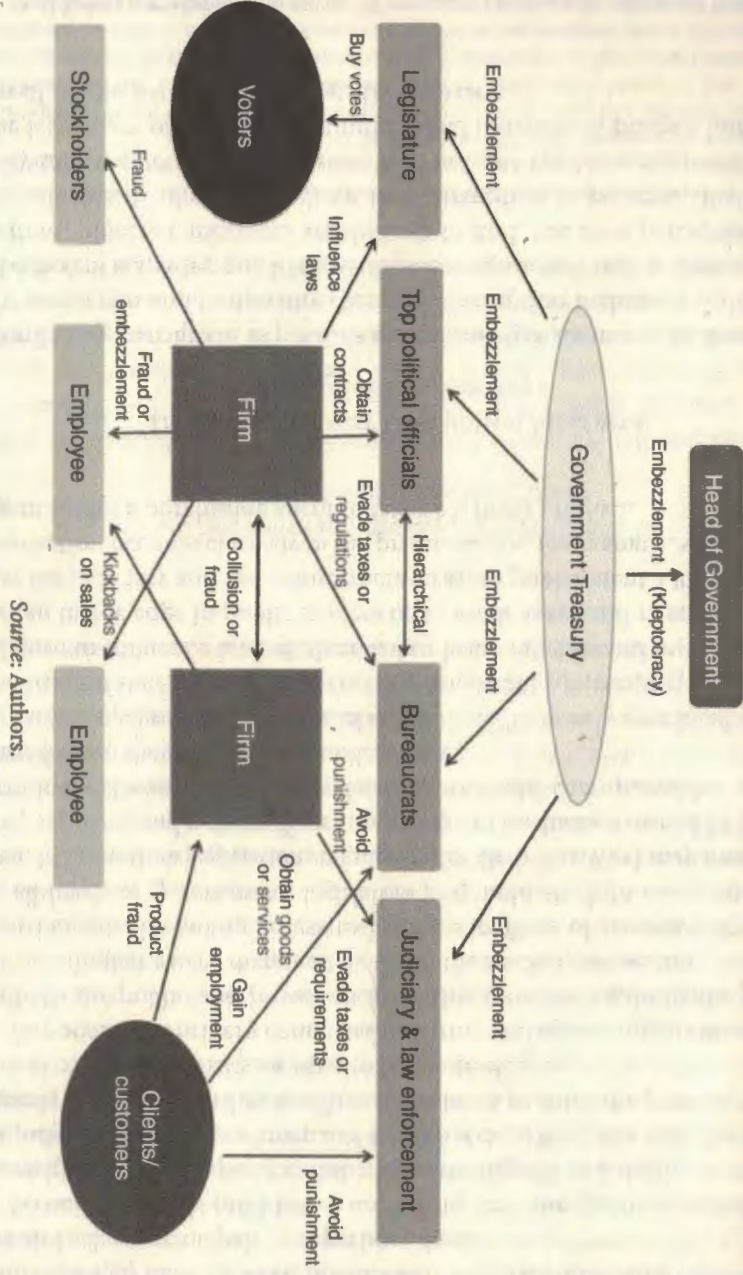
Figure 1.1 provides a schematic diagram of the loci of typical corrupt acts. Each arrow shows the flow of illicit gains in monetary or equivalent terms; the label on each arrow indicates what is gained in exchange (except in the cases of embezzlement or fraud, when only the embezzler or defrauder gains). "Government Treasury" represents all government funds from any source.

Many heads of state (presidents, prime ministers, etc.) have stolen government funds throughout history. As explained in Chapter 8, kleptocracy is the extreme case in which the state is organized purely to maximize the head of state's gains. In somewhat more institutionalized settings, the head of state may derive illicit gains by playing a direct role in public procurement or in the approval of foreign direct investment (FDI) projects by, for example, charging a "consulting fee" for every contract approved. Members of the legislature may embezzle directly from the resources they control, accept "gifts" from firms or lobbyists in exchange for supporting or opposing particular laws, or distribute resources to the electorate in order to influence votes.

Government officials are the heads of national or decentralized offices, such as customs administration, public healthcare programs, public education, or regulatory agencies. They have the power to design public tenders or select firms for projects, and may take (or demand) kickbacks in this process. They also oversee the bureaucrats charged with applying taxes or regulations. If corruption is top-down, the higher-up official takes the bribe or kickback and gives instructions to the bureaucrats, possibly sharing the bribe with them. For example, in customs administration, the port administrator may take a bribe from an importer, and instruct the customs agent at a particular gate to allow a specific shipment through without inspection (or to inspect all shipments by a competing importer). Conversely, corruption may flow from the bottom up: the customs agents take bribes and share

"Former Chair of JP Morgan China Unit Is Arrested," *New York Times*, May 21, 2014. <http://dealbook.nytimes.com/2014/05/21/former-top-china-jpmorgan-banker-said-to-be-arrested-in-hong-kong/> (accessed September 27, 2015). The time line with links to other articles in the *New York Times* is at "Inquiries of JP Morgan's Hiring in China," *New York Times*, March 23, 2014, <http://www.nytimes.com/interactive/2013/11/14/business/dealbook/14chase-asia.html> (accessed September 27, 2015). Deutsche Bank has also been investigated for similar practices and other international banks have been implicated as well. See Arno Schuetz, "Regulators Investigate Deutsche Bank in China 'Princeling' Probe," *Reuters*, June 5, 2014; AFR, "US agencies probe big bank on China nepotism," *The West Australian*, June 4, 2015, <https://au.news.yahoo.com/thewest/business/world/a/28331871/us-agencies-probe-big-banks-on-china-nepotism/> (accessed June 9, 2015).

Figure 1.1. Corrupt interactions.



Source: Authors.

a portion with the port administrator to avoid punishment. Similar relationships may exist between doctors and hospital administrators or teachers and school principals or superintendents.

Some individuals (and firms) are willing to bribe their way out of legal punishment. If attempting to bribe the arresting officer fails, the court clerk or judge might be more amenable to such a deal. If all else fails, the prison guards may accept bribes to allow contraband to enter the prisons, to permit extra conjugal visits, or even to facilitate escapes.

Nepotism and bribery connected to hiring and appointments may occur in both the public and private sectors. This provides a gain to the person hired: a higher salary than is available in the market, job security, or excellent benefits, including access to bribes. Conflicts of interest may occur at all levels of government: legislators may hold stock in companies that benefit from their legislation; regulators (or their relatives) may own firms they regulate; and police officers may frequent businesses owned by known criminals. These conflicts may facilitate outright corruption, but even if they do not, they can distort public choices.

Firms engage in many kinds of corruption. They may give kickbacks to the head of state to gain preference for important projects; pay off the legislature to influence laws in their favor; bribe officials and bureaucrats to get an inside edge in public tenders or to evade taxes and regulations; and pay the judiciary and law enforcement to avoid punishment. Other types of corruption occur exclusively in the private sector, for example, when a sales agent bribes a purchasing agent to favor his firm's product.

III. Cross-Country Corruption Measures: Perceptions and Surveys

Combating corruption is possible only if one has some way to document the status quo and to measure change.²² Corruption includes a wide range of different activities, and because most corrupt actors seek to conceal their actions, objective measures are difficult to find, but even perceptions can be valuable. If observers believe that corruption is endemic, that belief may influence economic decisions and indicate fundamental problems in the legitimacy of the state's institutions and practices. It places a burden of proof on the state to demonstrate the contrary.

²² Lord Kelvin is attributed with saying, "If you cannot measure it, you cannot improve it." ("Lord Kelvin/On Measurement," Quotations, <http://zapatopline.net/kelvin/quotes/#meas>, accessed September 27, 2015).

Yet, country-level measures can take one only so far. Once citizens and international actors are alerted to the overall problem, reform requires more than a general sense that corruption exists. A high level of corruption indicates that something is wrong with the states' underlying institutions and incentives; it signals a need for structural reform – not just more vigorous law enforcement. Measurement needs to discover how corruption operates in particular sectors and to estimate how it undermines public programs. Such measures, if properly designed, can help one to recommend reforms and to track progress over time.

In the chapters to follow we will focus on empirical studies of particular sectors in particular countries. We believe that such research is the key to effective reform at the country level. However, before considering corruption at the microlevel, this chapter provides an overview and assessment of the cross-country data. We describe the methodologies, present some data, and explain their limitations as measures of corruption. Our goal is to provide the reader with a rudimentary understanding of each measure, in order to evaluate the inferences drawn in academic studies and the popular press. In this section, we describe TI's widely cited CPI and the similar Control of Corruption Indicator (CCI) of the World Bank Institute. The appendix to this chapter provides more details and covers other cross-country measures of corruption.

A. The Corruption Perceptions Index and the Control of Corruption Indicator

The most popular measure of corruption is TI's CPI, which it has published annually since 1995 and which is available on the TI website (www.transparency.org). The CPI is a compilation of data from other sources that are merged to generate a single number for each country.²³ The CPI is now measured on a scale of 0 to 100, with a higher score signifying less corruption.²⁴ Certain countries – the Nordic countries, New Zealand,

²³ Each source index is normalized to have the same mean and standard deviation; then a simple average is taken for each country and the CPI is rescaled to fit the 0–100 range. The methodology was somewhat different before 2012.

²⁴ Before 2012, the CPI was reported on a scale from 0 to 10, where 0 meant "highly corrupt" and 10 meant "very clean." TI is an international organization that advocates for the control of corruption worldwide. TI collects data from a number of different surveys that mostly report business and expert perceptions of corruption in various countries. Some of the underlying data sources also cover the overall business environment – asking about red tape, the quality of the courts, etc. Respondents rank the countries on a scale from excellent to poor. See Transparency International, "Corruption

and Singapore, in particular – have consistently scored near the top, while others are ranked less well year after year. CPI scores tend to persist over time, with only a few countries showing marked improvement or deterioration. This persistence is due partly to the periodicity of the underlying data – some sources are not available on a yearly basis, so the same year is used to calculate various editions of the CPI – and partly to the circular nature of the surveys. Although some surveys instruct respondents not to consider the CPI when responding, it is likely that the previous CPI scores for a country influence the perceptions of corruption of the respondents. Furthermore, corruption tends to persist because participants expect it to do so. Expectations are often based on previous experience, so if a particular public service has required bribery in the past, those seeking the service will anticipate that this practice will continue. As we explain in Chapter 7, culture plays a role in the persistence of such expectations.

The other major cross-country index is the World Bank's CCI. The CCI is also a compilation, including most of the same sources and countries as the CPI (Kaufmann, Kraay, and Mastruzzi 2010).²⁵ The methodology for constructing the CCI is somewhat different, but the two indices are highly correlated,²⁶ and scores generally fall within the margin of error of each other. The CCI is reported as a normalized distribution, with a zero mean and a standard deviation equal to one. This form has the advantage of not imposing arbitrary cutoff points at the top and the bottom of the scale, but it is centered at zero each year. Hence, it cannot measure global trends,²⁷ but can only show how countries fare relative to each other.

Figure 1.2 shows the results of the CPI and the CCI side by side for 2013.²⁸ The least corrupt countries according to the CPI were Denmark (92), New

Perceptions Index 2012: Technical Methodology Note" http://www.transparency.org/files/content/pressrelease/2012_CPITechnicalMethodologyNote_EMBARGO_EN.pdf (accessed September 27, 2015). For an assessment of the new methodology and comparison to the old methodology, see Saisana and Saltelli (2012), available at http://files.transparency.org/content/download/534/2217/file/IR_C_Statistical_Assessment_CPI2012_FINAL.pdf (accessed June 28, 2014).

²⁵ The CCI and related information are available at the World Bank's Worldwide Governance Indicators site: <http://info.worldbank.org/governance/wgi/index.aspx#doc-sources> (accessed September 27, 2015).

²⁶ For the data collected in 2013, the correlation between the two was 0.987. This is identical to the correlation between the CPI and the CCI the previous year.

²⁷ Ostensibly, the new CPI methodology allows comparisons over time, but the pre-2012 CPI data do not.

²⁸ Note that TI uses the year the data are published (2014) while the World Bank Institute uses the year the data were collected (2013) in assigning a year to the data. Our graph refers to 2013, but the data from TI are reported as the 2014 index.

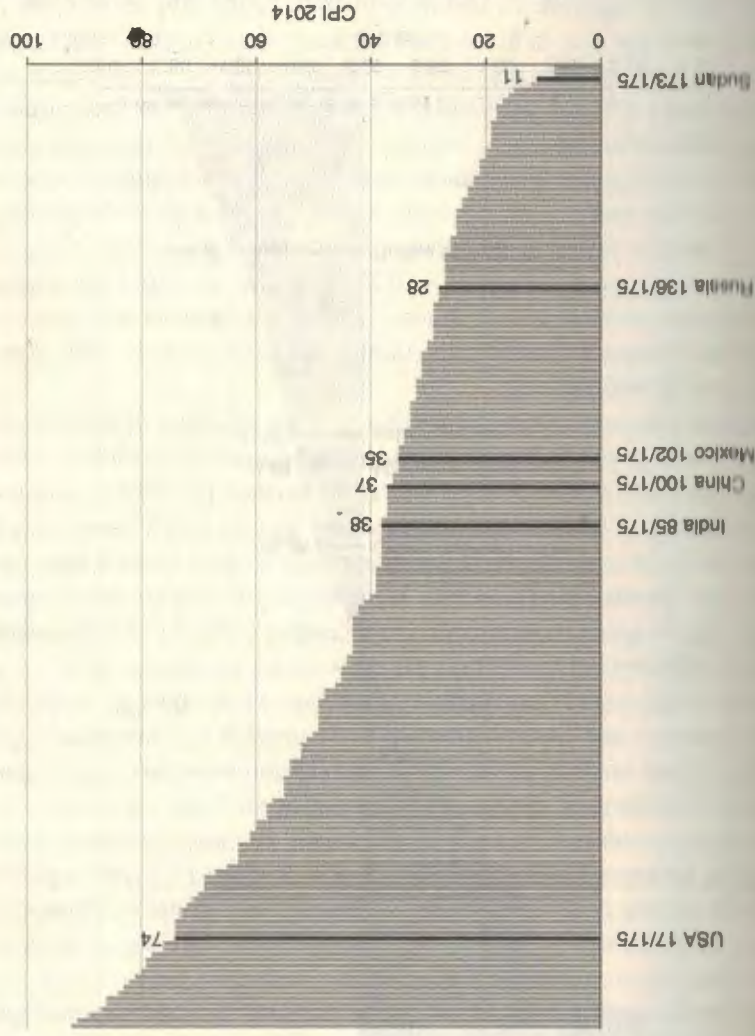
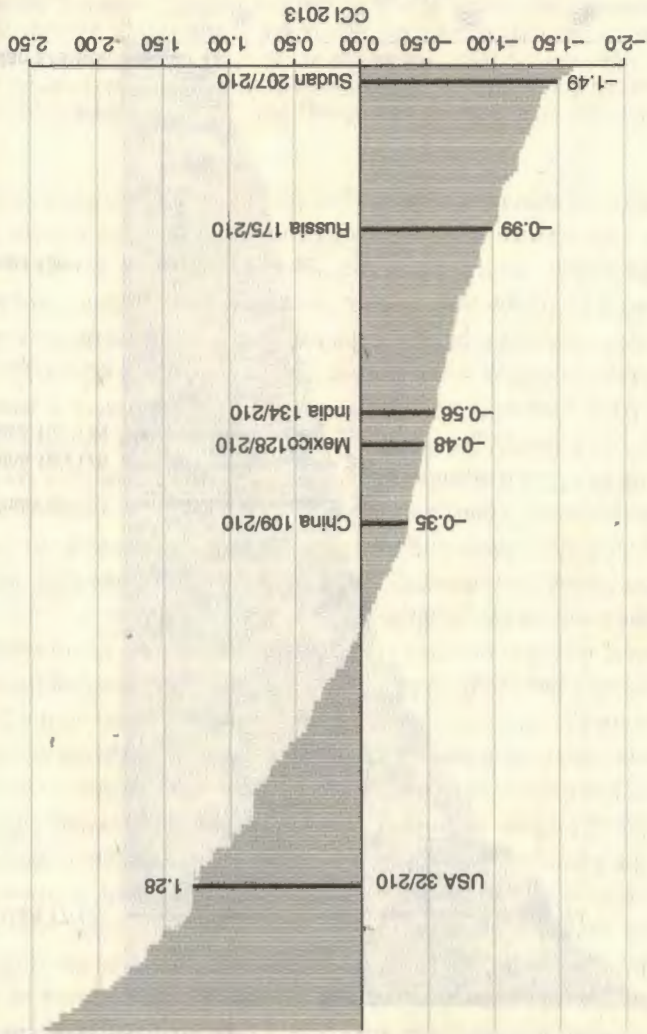


Figure 1.2. Corruption indices for 2013: The Corruption Perceptions Index vs. the Control of Corruption Indicator.

Zealand (91), Finland (89), and Sweden, Switzerland and Norway (tied at 86), the most corrupt were Somalia and North Korea (tied at 8), Sudan (11), Afghanistan (12), and South Sudan (15). On the CCI, the least corrupt were Denmark (2.41), New Zealand (2.35), Sweden and Norway (tied at 2.29), and Finland (2.19); the most corrupt were Equatorial Guinea (-1.61), Somalia (-1.58), Libya (-1.52), Sudan (-1.49), and Afghanistan

Figure 1.2 (continued)



Note: The CPI is listed by TI as for 2014, but the underlying data are actually from 2013. TI data used with permission.
Sources: Based on data from Transparency International, *Corruption Perceptions Index 2014* and World Bank, *World Governance Indicators 2013*.

(-1.43).²⁹ For illustrative purposes, we highlight six countries: the United States, Russia, Mexico, China, India, and Sudan. Note that in each graph,

²⁹ Note that four of the five worst-ranked countries on either index are postconflict countries; see Chapter 10.

the United States is ranked best of the six countries and Sudan last. Russia, India, Mexico, and China are in the lower half of each graph, but whereas India ranks better than China and Mexico on the CPI, India is below these two countries on the CCI.

The data come from surveys or questionnaires, applied to residents, business leaders (CEOs), or "country experts," sometimes complemented by "hard statistics" drawn from official sources. The CCI uses a broader concept of corruption, covering victimization and anticorruption institutions such as electoral integrity and freedom of the press, whereas the CPI is more tightly focused on concepts of corruption associated with bribery, embezzlement, and political influence. The addition of these factors likely explains India's fall in the rankings as one moves from the CPI to the CCI. (See the Appendix to this chapter for more details on the sources.)

The CPI performed the important function of helping to put corruption control on the agenda of international organizations and domestic reformers in the 1990s. Through dissemination by the popular press, it also raised the awareness of citizens around the world, who in many countries have demanded greater accountability and transparency. The indices have been used extensively by researchers to identify the causes of corruption, or conversely, to determine the effect of corruption on variables of interest, such as GDP or growth rates.

Before discussing some of these results, however, it is important to keep in mind the limitations of composite indices (Andersson and Heywood 2008). First of all, it is not clear exactly what is being measured. Many different data sources are included in each index, but not every country has data available from each source.³⁰ Hence, "corruption" may be more indicative of grand corruption in some countries and of petty corruption in others; it could suggest a greater risk of political instability resulting from corruption in some and a higher probability that businesses will have to pay bribes in others. As macroindices, they tell one nothing about the details of how corruption operates. Just as gross domestic product (GDP) per capita masks the income distribution by region, economic sector, and social class, the CPI and CCI make no distinction between corruption in the police force or customs, and political corruption; nor do they differentiate between corruption that only represents a transfer of funds and corruption that also distorts the allocation of resources. Similarly, these indices do not directly measure the volume of bribes, the incidence of corruption, or its impact.

³⁰ In order to be included in the CPI, three sources must be available; for inclusion in the CCI, one source.

Second, most of the sources behind the corruption measures are subjective and can be influenced by visible scandals that do not reflect underlying conditions.³¹ As a result, a worse score may reflect freedom of the press rather than necessarily higher "real" levels of corruption. Furthermore, the underlying methodology used to produce some of the component parts is proprietary and not transparent. (See the discussion of "expert surveys" in the appendix.)

Third, a country's score is not expressed in cardinal units, such as dollars. Rather it is a unit-less constructed number that tries to capture a country's position on a continuum from high to low levels of corruption. Yet, in empirical work the CPI is often used as if it were a cardinal number, so that a one-point difference is taken to be the same, no matter where on the distribution that difference falls. Thus, the sizes of coefficients should be given little weight; the direction and significance of correlations are what matter. Finally, some criticize the index for being culturally biased and not recognizing that some transactions viewed as corrupt in wealthy, market economies are acceptable in other countries, and vice versa. That may indeed be true, as we discuss in Chapter 7, but some actions are universally understood to be corrupt. Even countries that tolerate grease payments of various kinds do not legally condone huge kickbacks paid to political leaders in connection with major contracts and concessions. The only exception would be states that are the personal fiefdoms of the ruler and his family. Of course, the indices are not an overall measure of the impact of private wealth on public power. An index that tried to capture those interrelationships, many of which are perfectly legal in developed countries, would produce a different ranking (cf. Sandoval-Ballesteros 2013).

Given the range of behaviors covered by the concept of corruption, it is not clear what it means for a country to rank poorly on a corruption index.³² Does it mean that bribes are a large share of the value of contracts and government services? Does it mean that the proportion of deals influenced by bribery is high? Does it mean that self-dealing in all its forms has an

³¹ Olken and Pande (2012: 482) cite the example of Indonesia where the CPI fell (indicating increased corruption) after the fall of Suharto. They speculate that the fall may have been the result of a freed press that was better able to report scandals. Of course, another explanation is that the populace became more aware of corruption as its nature changed from centralized to competitive bribery (Chapter 8).

³² See Méndez and Sepúlveda (2009) for a model that demonstrates the analytic differences among contrasting definitions. The three they consider are (1) the number of corrupt deals, (2) the ratio of the number of corrupt to total deals, and (3) the total volume of bribes collected by corrupt officials. They show how one's evaluation of the extent of corruption can vary depending upon which metric is used in the context of their formal model.

especially distortary impact on economic and political life? How important are outright payoffs compared to more subtle types of influence such as cronyism and lobbying? Cross-country indices tell us something about dysfunctions in state/society relations, but little about the details. Empirical studies that reveal the mechanisms at work usually focus on single countries or sectors. They cannot be easily generalized. The level of bribes is not the critical variable in any case. One wants to know not just how much was paid, but also what was purchased with the payoff. For that, one needs detailed country-by-country and sector-by-sector analyses. This book is an attempt to set the agenda for such efforts and to draw lessons from the work that already exists. Only if we look at the fine structure of political and economic systems, can we go from a showing that "corruption" is harmful to an understanding of how it operates in different contexts.³³ Given that knowledge, reform programs can attack corruption where it has the worst effects and where marginal gains are high relative to marginal costs. We draw on existing work in individual countries to illustrate our arguments concerning the causes and consequences of corruption and to recommend reforms. However, the existing collection of cases is not sufficient. We need more systematic knowledge of how corruption and self-dealing affect the operation of government programs and private markets.

In short, the index scores are not policy tools in and of themselves. The links between reform policies and the index numbers are complex and unclear. No government ought to have as its goal an improvement of X points in its CPI score. Reform requires more focused measurements leading to targeted policies. In response to this need, many country- and sector-specific instruments have been developed since the late 1990s. These include microsurveys of firms and individuals (which permit the identification of characteristics associated with corrupt behavior), experiments in behavioral laboratories and in the field, and audits. These data have allowed greater insight into the causes and consequences of corruption and informed anticorruption policy in ways that country-level indices cannot. Nevertheless, cross-country work, if interpreted with a degree of caution, can help set the stage for the more focused sectoral work that we discuss in subsequent chapters, and that is the key to setting reform priorities.

³³ As an example of the kind of detailed understanding needed for concrete proposals in particular cases consider Tendler's (1979) report to the World Bank on graft in rural works programs in Bangladesh. The paper is an admirable analysis of the impact of graft on different aspects of a development project and a discussion of the conditions under which local people can be used as monitors of others' honesty.

B. The Global Corruption Barometer

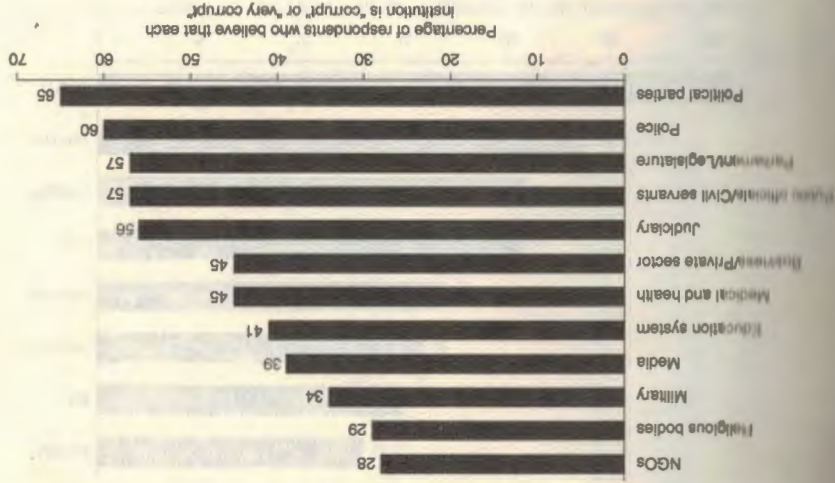
Popular polls are one response to the criticism of composite indices and elite surveys. Survey firms conduct polls through face-to-face, telephone, or online interviews or questionnaires. The questions may be concerned with perceptions of corruption or actual experience. For example, the Global Corruption Barometer (GCB), published by TI, asks respondents – ordinary people – both types of questions. “To what extent do you think that corruption is a problem in the public sector of this country?” is a perception question. The responses are coded from 1 (“no problem at all”) to 5 (“very serious problem”). This same question is also asked about specific aspects of public-sector service delivery, the media, NGOs, and business.³⁴ Strikingly, the vast majority of countries have a score between 3.5 and 5. Indeed, the least corrupt country by this measure is Rwanda, with a score of 2, followed by Denmark (2.2), Sudan (2.6), Switzerland (2.7), and Finland (2.9); the most corrupt are Mongolia and Liberia (tied at 4.8), Zimbabwe, Serbia, Russia, Paraguay, Nigeria, Mexico, and Indonesia (tied at 4.7). Only 107 countries are represented, however, excluding many small countries and many of the countries considered most corrupt on other indices.

Global results (based on 114,000 responses in 107 countries in 2013) by subsector are presented in Figure 1.3.³⁵ By institution, on a global level, political parties were perceived as the most corrupt institution, while NGOs

Before engaging in cross-national comparisons using the GCB, it is important to note the limitations of the data. First, the questions only capture low-level petty corruption experiences, not grand corruption by high-level officials. Second, differences in reported bribery rates might be driven in part by cultural differences in respondents’ willingness to report illicit behavior. Corruption is more openly discussed in some societies than others. There may also be cultural differences in what constitutes a corrupt transaction. A bribe in one country may be considered a gift in another. We discuss those complexities in Chapters 7 and 8. Third, government institutions may vary significantly across countries, and “regis-

Global results are based on the entire sample: one response is one vote. For most countries, the sample size is approximately 1,000. Countries with significantly fewer respondents are Cyprus (570), Luxembourg (502), Solomon Islands (509), and Vanuatu (505); those with significantly more respondents are Afghanistan (2040), Australia (1200), Bangladesh (1822), Bosnia and Herzegovina (2000), Brazil (2002), Ghana (2207), Japan (1200), Korea (1500), Moldova (1211), Pakistan (2451), Peru (1211), Romania (1143), and Ukraine (1200). China is not represented. See http://issuu.com/transparencymaterial/docs/2013_globalcorruptionbarometer_en?e=2496456/3903358#search (accessed June 11, 2014).

Figure 1.3. Sector-specific results from the 2013 Global Corruption Barometer.



Source: Transparency International, *Global Corruption Barometer 2013*. Results are based on 114,000 respondents in 107 countries in 2013. TI data used with permission.

data is that the institutions perceived to be most corrupt – political parties, the police, public officials and civil servants, parliament or the legislature, and the judiciary – are the very institutions charged with creating and upholding the law.

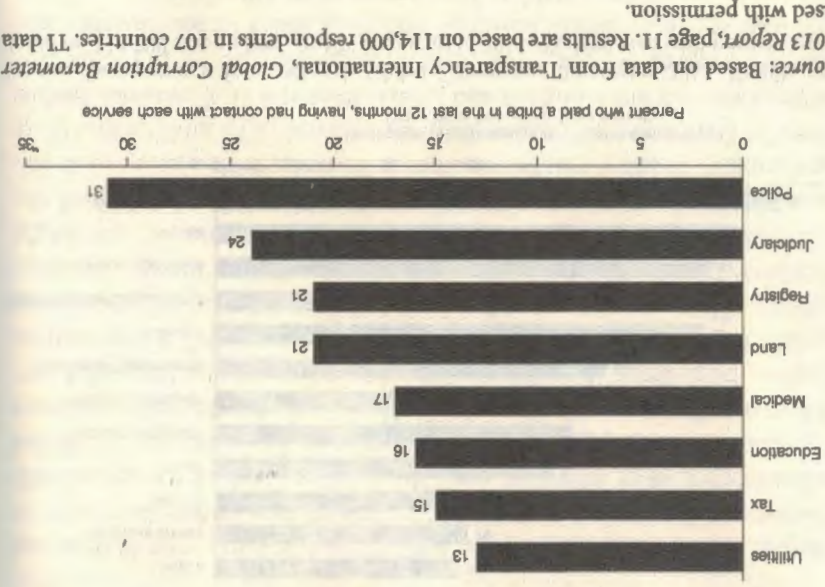
The survey also tabulates experiences by asking about respondents’ use of various services in the past year, and in the cases in which the service was used, if they paid a bribe. The number of bribers divided by the number of users (multiplied by 100) yields a bribery incidence index.³⁶ The global results from this question are presented in Figure 1.4. Country-level results are presented in the Appendix.

C. Perceptions vs. Incidence

Given the results from the popular polls, we can ask whether elite surveys are “out of touch.” Figure 1.5 plots the GCB’s question regarding how much

the corruption incidence index reported by the GCB measures the user-based incidence: the percentage of users who paid a bribe, independent of the number of times they used the service. Some surveys – e.g., the *Encuesta Nacional de Corrupción y Buen Gobierno*, produced by Transparencia Mexicana – report a use-based incidence, based on the number of times the service required a bribe, divided by the number of times the service was used. The resulting figure is the percentage of uses of a service that were corrupt. The distinction between the two is more than semantic, and there are advantages and disadvantages to each.

Figure 1.4. Global Corruption Barometer: Incidence of bribery in subsectors.



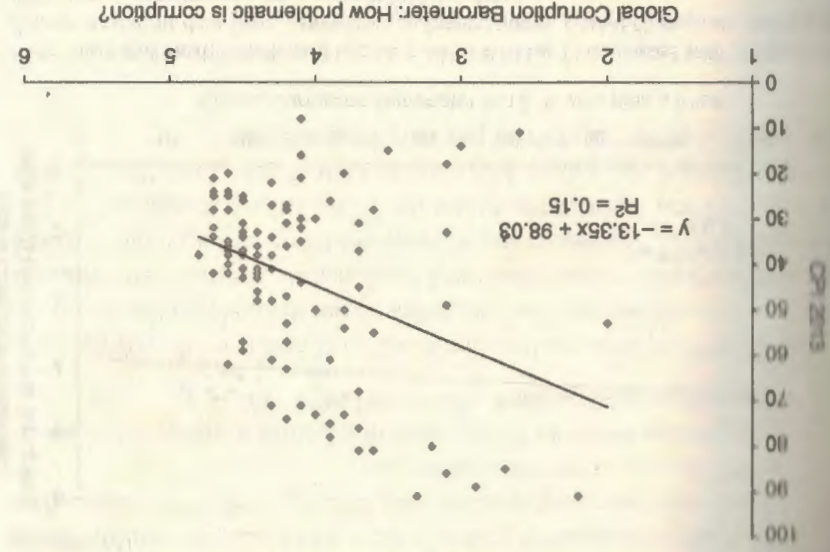
Source: Based on data from Transparency International, *Global Corruption Barometer 2013 Report*, page 11. Results are based on 114,000 respondents in 107 countries. TI data used with permission.

of a problem corruption is (5 = very serious problem), against the CPI (100 = very clean).³⁷ The negative correlation we would expect is present, but very weak. Most countries score between 4 and 5 on the GCB scale, while there is a much greater variance in the CPI data. In other words, most residents believe that corruption is a serious or very serious problem, while those with some cross-country experience see a good deal of variability around the world.

Figure 1.6 plots corruption incidence reported in popular surveys (GCB) (i.e., the percentage of users of a public service who report paying a bribe for that service) against expert opinion (CPI). Here the negative relation is much stronger. The difference between these two graphs highlights the subjectivity of the perception question, which is made clearer in Figure 1.7 comparing residents' perceptions with their experiences, both from the GCB. The relationship between peoples direct experience with corruption and their perceptions of corruption is quite weak. Even in countries with low corruption incidence (x-axis), residents tend to perceive that corruption

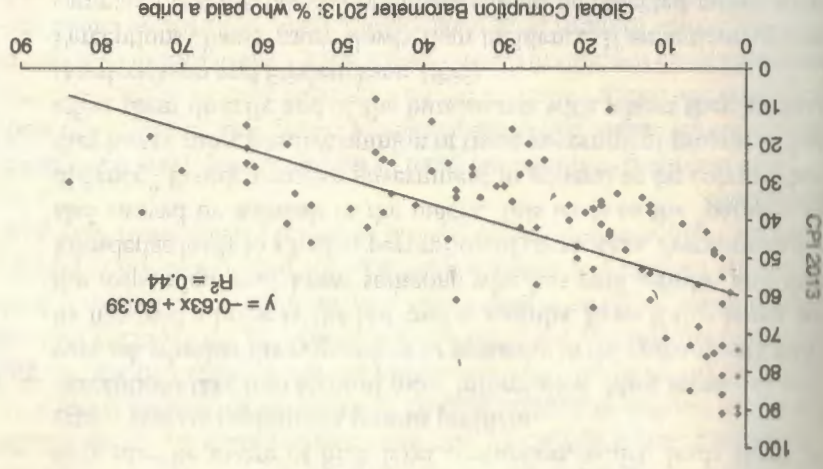
³⁷ We use the 2013 CPI so that both sets of data reflect the same year.

Figure 1.5. Public opinion (GCB) vs. expert opinion (CPI).



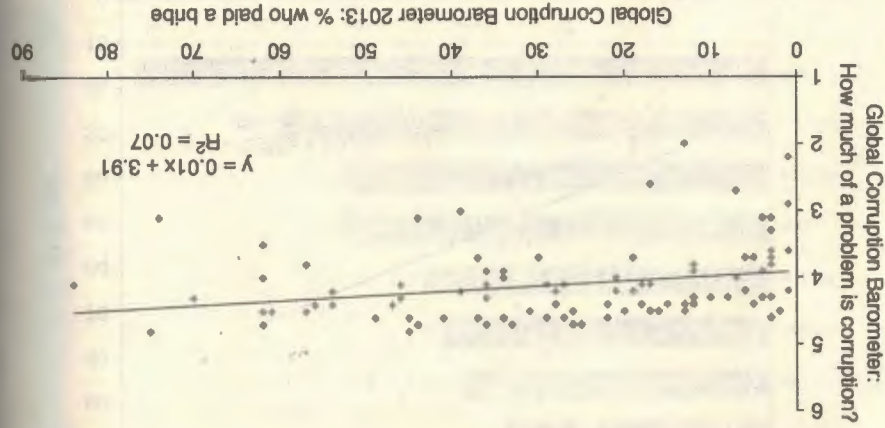
Note: The t-stat for the coefficient is -4.16; p-value 0.000. TI data used with permission. Source: Based on data from Transparency International, *Global Corruption Barometer 2013* and Transparency International, *Global Corruption Barometer 2013*.

Figure 1.6. Incidence (GCB) vs. expert opinion (CPI).



Note: The t-stat for the coefficient is -8.41; p-value 0.0000. TI data used with permission. Source: Based on data from Transparency International, *Corruption Perceptions Index 2013* and Transparency International, *Global Corruption Barometer 2013*.

Figure 1.7. Incidence (paid a bribe) vs. public perception (how much of a problem is corruption?).



Note: The t-stat for the coefficient is 2.58; p-value 0.0114. TI data used with permission. Source: Based on data from Transparency International, *Global Corruption Barometer* 2013, http://www.transparency.org/gcb2013/in_detail

is a serious problem (y-axis). Why might this be so? There are at least four possibilities (Mocan 2008; Morris 2008).

1. Perceptions reflect the difference between grand and petty corruption: although people may not have to pay bribes for public services, they may be aware of high-level corruption, which leads them to report that corruption is a serious problem.

2. Perceptions take into account more information. Most incidence surveys ask whether the respondent or someone in the respondent's family has paid a bribe in the last twelve months. Even if this is not so, the respondent may know someone who has paid a bribe, and that knowledge leads to a higher perception of corruption. Perceptions are also swayed by scandals in the media. This leads to the "paradox of distance." People perceive government in general to be corrupt, but they have a more positive opinion of those government programs that affect them directly and of the bureaucrats with whom they interact (Fredrickson and Fredrickson 1995).

3. Perceptions change more slowly than incidence. If an anticorruption campaign is undertaken, the impact should be reflected rather soon in the incidence of bribery, but for psychological reasons, people still hold on to their previously formed perceptions. Perhaps they have not used the reformed services since the anticorruption campaign

slowly; some sources are collected less than annually, so previous years are used when calculating these indices. As a result, it is not surprising that the average changes only slowly, because some of the source data is held constant over two or more years.

4. Respondents interpret the perception question to mean "How much of a problem is corruption when it occurs?"

For all of these reasons, it is important to consider what each measure of corruption represents. The best index to use depends on the questions one seeks to answer. Perceptions and incidence are distinct measures, and it matters whose opinions or experiences are taken into account. It would be inappropriate, for example, to use the GCB's bribery incidence in a discussion of grand corruption. Likewise, we cannot infer from the CPI how much ordinary citizens or firms pay in bribes each year.

IV. The Costs and Causes of Corruption: An Overview of Cross-Country Empirical Results

(Having critiqued the cross-country data, we now step back and ask if these data sets can, nevertheless, teach us something.) The indices appear to capture underlying aspects of the relationship between the state, on the one hand, and citizens and private businesses, on the other.³⁸ In spite of some anomalous individual cases, the general patterns show that some countries are persistent high achievers in terms of good governance and economic and social progress and that others are persistent laggards. In the middle are a large number of ambiguous cases in which the correlation is less powerful, but the pathologies of corruption are felt in particular sectors and aspects of government performance. The indices do not explicitly indicate what policies might be effective, but they do highlight problems – both where the incidence of bribes is high (e.g., the police) and where perceptions are high, whatever the reality (e.g., political parties, many very poor countries).

Many empirical studies undertaken in the past twenty years try to determine both the causes and consequences of corruption. At first, most studies used cross-country analysis, but an increasing number of microanalyses have used more specific corruption data. Figure 1.8 provides an overview of the most robust findings from these studies, many of which we cite in subsequent chapters. There are a host of causes that generally interact with each other. In this diagram, we have divided the causes into "incentives" and "institutions," but personal ethics, of course, also plays a role. Corruption

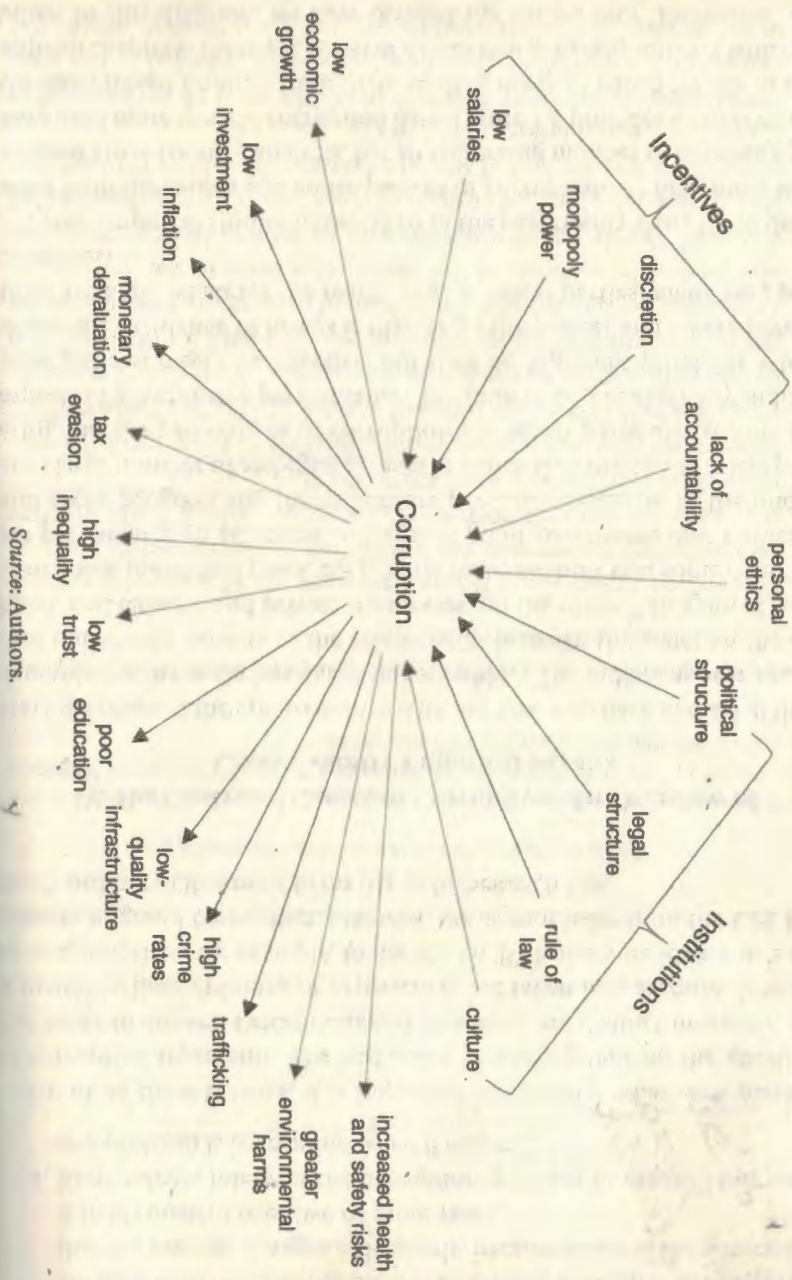


Figure 1.8. Causes and consequences of corruption.

Source: Authors.

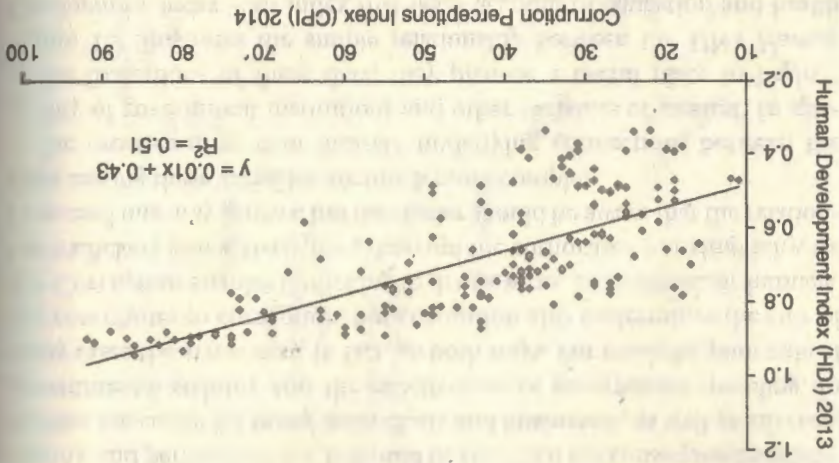
measures at the intersection of situation-specific incentives, society-wide institutions, and personal ethics. It should be clear that the consequences of corruption are costly for many individuals and businesses, as well as affecting government stability and the effectiveness of government spending. In many cases the arrow may, in fact, go both ways. For example, poor rule of law contributes to corruption, but corruption also undermines the rule of law. Corruption enables trafficking in drugs, arms, contraband, or humans, but traffickers also actively try to corrupt the authorities. For simplicity, we have used one-way arrows, but the reader should be aware that the relationships among these variables are much more complex.

The cross-country data indicate underlying connections between the quality of government institutions and other variables of interest. In spite of the limitations of these data, they provide a useful place to begin.³⁹ Figure 1.9 illustrates the simple relationship between the UN's *Human Development Index* – an index that takes account of education and health as well as gross national income (GNI) per capita⁴⁰ – and perceived levels of corruption in 2012 as measured by TI's CPI. This correlation is one of the most robust relationships to have emerged out of corruption research (Johnston 2005; Akçay 2006; Reiter and Steensma 2010; Askari, Rehman, and Arfaa 2012). Countries with higher levels of corruption have lower levels of human development. Similarly, as a rule, richer countries and those with high growth rates have less reported corruption and better functioning governments (Kaufmann 2003).

Efforts to explore the mechanisms at work suggest that corruption reduces the effectiveness of industrial policies, making running a business more expensive, and thus encourages business to operate in the informal sector in violation of tax and regulatory laws.⁴¹ As more individuals and firms

We do not attempt to review all the cross-country studies produced since Mauro's (1995) study. For early surveys see Bardhan (1997) and Jain (2001). See also Rose-Ackerman and Trix (2013). For more information on the *Human Development Index*, see the United Nations Development Programme's website at <http://hdr.undp.org/en/content/human-development-index-hdi> (accessed September 27, 2015). Mauro (1995, 1997) demonstrates that high levels of corruption are associated with lower levels of investment as a share of GDP. The corruption indices are highly correlated with other measures of bureaucratic efficiency, such as the level of red tape and the quality of the judiciary. As a consequence, Mauro was unable to measure the marginal effect of any one of these measures. Putting the separate indices together in a measure of bureaucratic efficiency, "if Bangladesh [with a score of 4.7] were to improve the integrity and efficiency of its bureaucracy to the level of that of Uruguay [score 6.8] ... its investment rate would rise by almost five percentage points and its yearly GDP growth rate would rise by over half a percentage point (Mauro 1995: 705)." Mauro also demonstrates that highly corrupt

Figure 1.9. Corruption and development.



Note: the t-statistic for the coefficient is 13.26; p-value 0.0000. TI data used with permission. Sources: Based on data from United Nations Development Programme, *Human Development Index and Its Components* and Transparency International, *Corruption Perceptions Index 2014*.

evade taxes, the government finds it necessary either to raise tax rates or to engage in seigniorage, leading to inflation⁴² (Al-Marhubi 2000; Blackburn and Powell 2011), a depressed national currency (Bahmani-Oskooee and Nasir 2002), and, if fixed exchange rates are in place, a higher black market premium (Bahmani-Oskooee and Goswami 2005). It negatively affects the business and investment climate so that FDI is discouraged by high corruption levels (Wei 2000; Habib and Zurawicki 2002; Egger and Wimmer 2006) and by differences in the corruption levels of the host country and country

countries tend to underinvest in human capital by spending less on education (Mauro 1997). He argues that this occurs because education provides less lucrative corruption opportunities than other types of more capital-intensive public spending. Ales and di Tella (1997a) argue that an aggressive industrial policy may be partly motivated by the corrupt gains the policy makes available. In such cases, the direct positive effect of the policy can be undermined by its role in increasing corruption and hence discouraging investment. Their empirical results demonstrate that in the presence of corruption, the positive impact of industrial policy is halved. East Asian economies are not immune from this effect. Johnson, Kaufmann, and Zoido-Lobaton (1998: 389–91) find that higher levels of corruption are associated with a larger unofficial economy. Braun and di Tella (2004) trace the causality in reverse: higher inflation causes corruption, suppressing growth both directly and indirectly. Cukierman, Edwards, and Tabellini (1992) find that higher levels of political instability lead to higher rates of inflation. Insofar as corruption causes political instability – which, in turn, fuels inflation – this is a transmission mechanism for corruption to cause inflation.

of origin (Habib and Zurawicki 2002). Corrupt countries tend to suffer from more bureaucratic red tape, which may be intentionally created by rent-seeking bureaucrats.⁴³ Asian economies are not an exception – those with high corruption levels would have attracted more FDI if corruption had been lower, and their industrial policies would have been more effective.⁴⁴ Consequently, corruption depresses economic growth (Mauro 1995; Aidt 2009).

Estimates of the magnitude of these effects vary and in any case are difficult to interpret. Considering only GDP per capita, which is a narrower measure of development than the HDI and does not include measures of education and health, Dreher and Herzfeld (2005) find that an increase of corruption by one index point (on a scale from 0 to 10) dampens GDP growth by 1.3 basis points (i.e., 0.13 percentage points) and lowers per capita GDP by around \$425. Gyimah-Brempong (2002) estimates the effect to be between 75 and 90 basis points or just under one percentage point. Mo (2001) estimates the elasticity of real GDP with respect to corruption to be 0.345. According to Haque and Kneller (2009), the correlation is nonlinear: it becomes more negative below the 4th percentile of GDP per capita and above approximately the 75th percentile.⁴⁵ Estimates of the relationship between corruption and GDP or GDP growth may be sensitive not only to the years and control variables used, but also to the countries included. Besides, however, that the measure of corruption is an index with no natural units, thus, it is unclear how one should interpret coefficients on that variable and the elasticity measures that result. Furthermore, these studies do not resolve the issue of causation and the possibility of vicious and virtuous cycles.

In further complicate matters, some countries do manage to have high levels of human development and growth despite high levels of corruption, showing that the relationship is far from deterministic. High levels of corruption are more destructive under some conditions than others (Wedeman

the discussion regarding “greasing the wheels” versus “sanding the wheels” in the section “Potential Benefits of Corruption” in Chapter 2. Chang and Wei (2000) shows that corruption acts like a tax on FDI. An increase in the corruption level from relatively clean Singapore to relatively corrupt Mexico is the equivalent of an increase in the tax rate of more than 20 percentage points. The statistical result holds for East Asian countries as well as for the others in his sample. By contrast, Egger and Wimmer (2006) find that corruption has a smaller effect on inward FDI for large (GDP), more distant, and differently endowed countries, arguing that China’s size and low wages overcome the negative effects of corruption in attracting FDI from OECD countries. The authors estimate the effects of lagged GDP per capita on corruption, rather than

1997: 459). For example, it can be especially detrimental if the rule of law is weak (Méon and Sekkat 2005) or in nondemocratic countries (Drury Kriechhaus, and Lusztig 2006). Although countries with strong institutions are usually resistant to corruption, if it does get a foothold, it can be especially destructive as it undermines those institutions (Aidt, Dutta, and Sena 2008).

Some analysts argue that, under specific conditions, corruption even improves economic outcomes. If businesses and individuals face onerous amounts of red tape, for example, corruption helps them to reduce their costs, both monetary and temporal, allowing for more innovation, business creation, trade, and economic growth (Leff 1964). This is known as the "greasing the wheels" hypothesis. For countries with poor institutions, some empirical studies found that corruption is not detrimental to growth⁴⁶ and may even increase efficiency (Méon and Weill 2010) or entrepreneurship (Dreher and Gassebner 2013). However, these results contradict the findings of Méon and Sekkat (2005), in which corruption was more costly for growth when the quality of governance was poor.⁴⁷ Neeman, Paserman, and Simhon (2008: 30) conclude that "corruption is negatively correlated with output in open economies, but not in closed economies." With relation to bilateral trade, Dutta and Traca (2010) find that, although corruption reduces trade when tariff rates are low, the opposite is true for high tariffs. Thus, there is some evidence that if the state imposes very restrictive rules, corruption helps firms and individuals circumvent them, but one should always remember that this is a second-best option. The best policy is an overall reform that reduces the incentives to pay bribes in the first place.

Even when corruption and economic growth coexist, payoffs introduce costs and distortions. Corrupt high-level officials support too much unproductive public investment and undermaintain past investments. Corruption encourages excessive public infrastructure investment (Tanzi and Davoodi 1997, 1998, 2002) that "crowds out" private investment. At the same time, the public infrastructure may be of low quality, so that the expectation of higher growth and job creation are not realized. Highly corrupt countries tend to underinvest in human capital by spending less on education, and

⁴⁶ Aidt, Dutta, and Sena (2008). Note, however, that Aidt (2009) argues that any possible short-term individual gains are outweighed by long-term macroeconomic growth concerns.

⁴⁷ Méndez and Sepúlveda (2006) find that there is a quadratic relationship between corruption and growth in free countries, with a nonzero maximum. In nonfree countries, there is no statistically significant relationship. Although their samples are quite small, their results complement other results that suggest interactions between the corruption levels and other features of government.

they degrade environmental quality (Mauro 1998; Esky and Porter 2002; Transparency International 2011a). In a corrupt regime, economic actors with few scruples, such as those engaged in illegal businesses, have a comparative advantage and may dominate the business and political sectors. Some studies have examined the relationship between corruption, on the one hand, and inequality and poverty, on the other. High growth rates can coexist with rising inequality, with those at the bottom of the income distribution receiving few benefits and the majority of the income growth accruing to the top of the distribution. If corruption-fueled growth does not translate into improved education, health care, and public infrastructure, inequality can persist over generations and can eventually slow growth. Aidt (2011) constructs a broad index of sustainable development and shows that corruption has a detrimental effect. Corruption in Aidt's formulation might spur investment and growth in the short run, but this could have negative effects in the long run if the projects chosen do little to enhance long-term growth and poverty reduction. Other work explicitly focuses on inequality. One study found a curvilinear relationship between corruption and the Gini coefficient, a widely used summary measure of inequality (Li, Xu, and Zou 2000). The Gini coefficient ranges from zero to one with higher numbers representing higher inequality. Over most of the range, as corruption increases, inequality increases. This relationship holds for all regions, but is strongest in Latin America, followed by Africa (Gyimah-Boadi and Munoz de Camacho 2006). This is consistent with You and Khagaram (2005),⁴⁸ who argue that economic elites make high level payoffs to maintain their privileged position in very unequal societies, resulting in a vicious circle of corruption and inequality. Similarly, Gupta, Davoodi, and Alonso-Terme (2002) find that corruption both increases inequality and depresses the income growth of the poorest 20%. However, Li, Xu, and Zou (2000) find that in very corrupt countries, corruption can lower inequality. This is not, however, a defense of corruption. Rather, it suggests that corruption can be so entrenched that it not only lowers overall GDP but also wipes out the rents that benefit the political and economic elite; everyone is equally poor.

⁴⁸ For states in the United States, Apergis, Dincer, and Payne (2010) and Chong and Granda (2007) also find a vicious circle between corruption and inequality. Dincer and Granda (2012) find that corruption increases inequality, but do not test for reverse causality. According to Dobson and Kamlogan-Dobson (2012), informal sector employment reduces and may even reverse the effect of corruption on inequality; they argue that for this reason corruption is less costly in Latin America than in other regions.

The effects of corruption on the quality of life can be extreme. Although there are likely to be a multitude of causes, it remains troubling that "83% of all deaths from building collapse in earthquakes over the past 30 years occurred in countries that are anomalously corrupt"⁴⁹ (Ambraseys and Billham 2011: 153). Poorly constructed roads (Tanzi and Davoodi 1998; Olken 2007, 2009) are made even more dangerous by drivers who obtain their licenses through bribery (Bertrand et al. 2007). Corruption is correlated with deforestation (Barbier 2004; Bulte, Damania, and López 2007; Kishor and Damania 2007; Koyuncu and Yilmaz 2009) and environmental degradation, both of which contribute to global warming. Access to potable water, education, medical services, and basic utilities may be compromised (Transparency International 2006, 2008, 2013c). For a set of public services in Peru, Recanatini (2011a: 53) finds that more corrupt services tend to be of lower quality. Corruption plays a key role in migrant smuggling, drug trafficking, human trafficking,⁵⁰ arms trafficking, and general violations of human rights (Levi, Dakolias, and Greenberg 2007; Chahin and Shartman 2009; Eurapol 2013; Organization of American States 2013a, 2013b; UNODC 2013; U.S. Department of State 2014). Corruption has also played a critical role in laying the groundwork for financial crises (Tillman 2009). Corruption undermines the legitimacy of government (Canache and Allison 2005; Sandholtz and Taagepera 2005) and its credit rating (Connolly 2007), as well as the trust that people place in one another (Rose-Ackerman 2001a; Rothstein and Stoile 2003).

There is some debate over the relationship between the size of government and the extent of corruption. Downsizing through program elimination and privatization may reduce corruption because some programs no longer exist. However, if a program is merely cut back, payoffs may increase in size and extent as applicants compete for the scarce supply (Rose-Ackerman 2000: 99). Pointing to the examples of the Nordic countries, where low corruption and high government budgets coexist, Friedman et al. (2000) show that, in a set of 69 countries, higher tax shares are associated with low corruption. According to them, low corruption induces more economic activity to occur in the formal economy where it is taxable, and in democracies citizens are willing to support high levels of public expenditures only if the government is honest and

⁴⁹ The authors predict the expected level of corruption based on per capita GDP; "anomalously corrupt" refers to those countries that are more corrupt than predicted.
⁵⁰ Transparency International, "Corruption and Human Trafficking," http://files.transparency.org/content/download/111/447/file/2011_3_TI_CorruptionandHumanTrafficking_EN.pdf (accessed October 8, 2015).

competent.⁵¹ The connection between government size and corruption is modeled by Acemoglu and Verdier (2000)/who develop a game-theory model to show how the correction of market failures causes government to grow, as regulations are introduced and inspectors are hired; ultimately, there is a trade-off on the margin between market failure or "government failure" – corruption or other types of government malfunction. However, the costs of enforcing regulations are only a small share of country budgets – dominated by the military, pensions, education, health, and so forth. As we discuss in Chapter 2, in assessing regulatory corruption, the key variables are the details of the legal regime and the capacity of the bureaucracy, not simply budget totals. It is also unclear whether corruption is more prevalent under centralized or decentralized bureaucracies and government structures. We discuss the contrasting research results in Chapter 12 as part of a general discussion of forms of accountability.

Other studies switch the direction of the causal arrow and try to explain cross-country differences in the level of corruption on the basis of country characteristics. Sandholtz and Koetzle (2000), for example, find that corruption is lower in countries with high levels of per capita GDP, high levels of economic freedom, openness to trade, a Protestant tradition, and, more weakly, with democratic structures, especially long-lasting ones. The use of e-government is associated with less corruption, as transparency and accountability are increased and discretion decreased, often by eliminating direct contact with civil servants (Andersen 2009). Some research, which we discuss in Chapter 7, finds that the participation of women in politics lowers corruption, but, as we show, that result is not very robust and its policy implications are unclear.

Most cross-country work is not based on an adequate structural model of the way corruption interacts with other features of the environment. The studies highlight important empirical regularities, but the direction of causation is often unclear. For example, are low levels of income and growth a consequence or a cause of corruption, or both? Sometimes the causal link is simply asserted, not demonstrated. In reality, it seems likely that the causal arrow runs both ways, often creating vicious or virtuous spirals (Lambdsdorff 2006; Rose-Ackerman 2006b, 2008a; Treisman 2007a). A country may be

⁵¹ Early empirical works (Goel and Nelson 1998) found that government size, measured as government spending, was positively correlated with higher corruption, but others (Gerring and Thacker 2005; Glaeser and Saks 2006) find no correlation. As Gerring and Thacker (2005: 250) note: "big government is not necessarily corrupt government." According to Goel and Nelson (2011), the effect depends on how both corruption and government size are measured.

caught in a corruption trap where corruption breeds more corruption and discourages legitimate business investment. Corruption limits growth and destroys trust in government, and low growth and distrust of the state fuel and seem to justify corruption. Conversely, low corruption aids growth, and high growth creates a societal demand to lower corruption even further. Vicious spirals are not, of course, inevitable, but they are a risk, and escaping them is usually difficult. Such spirals will not be evident in cross-country analyses although they may be behind some of the results.

A related empirical issue concerns the relative power of political versus economic actors in determining the divisions of corrupt gains. Cross-country indices provide no direct evidence of how the benefits are shared. Following John Joseph Wallis, one can distinguish between "systematic corruption ... when politics corrupts economics ... [and] Vena corruption ... when economics corrupts politics" (Wallis 2006: 25, italics added). If those with political power distribute economic power, systematic corruption may exist when those with economic power influence policy or law; it is vena.⁵² Of course, few systems will be pure examples of either type – systematic and vena corruption tend to coexist – but more research on the division of gains would be extremely worthwhile.

Unfortunately, even when the statistical difficulties are well-handled, empirical regularities based on cross-country indices are of limited use to policy makers. They can raise consciousness about the negative impact of corruption on growth, productivity, and the distribution of wealth, but they are of little use in designing anticorruption strategies. Designing policies around such studies, with their imperfect data sets and aggregated measures, seems problematic.⁵³ In what follows, we will focus, instead, on the costs and benefits of reforms in particular sectors and for specific types of government actions.

V. Plan of the Book

We analyze the problem of corruption along four dimensions. The first takes the basic institutions of state and society as given and asks how corrupt

⁵² See also Khan (1996, 2006) and Johnston (2005). In Johnston's typology influence markets are an example of vena corruption, while systematic corruption is more characteristic of elite cartels and official moguls. For oligarch and clan corruption both types of corruption are likely to be pervasive.

⁵³ There is also some skepticism over whether the corruption and GDP growth correlation is driven by faulty measurement, specifically the use of perceptions-based corruption measures. Treisman (2007b) and Aldi (2009) find no strong relationship between corruption experiences and growth.

incentives arise within public programs. We identify pathologies that recur across sectors, drawing specific examples from a range of concrete situations.⁵⁴ We show that corruption can create inefficiencies and inequities and, at best, inferior to legally established payment schemes. Reforms can reduce the incentives for bribery and increase the risks of engaging in corruption. The goal is not the elimination of corruption per se but an improvement in the overall efficiency, fairness, and legitimacy of the state. The total elimination of corruption will never be worthwhile, but steps can be taken to limit its reach and reduce the harms it causes.

The second dimension recognizes that corruption has different meanings in different societies. One person's bribe is another person's gift. A political leader or public official who aids friends, family members, and supporters may seem praiseworthy in some societies and corrupt in others. As economists, we cannot provide an in-depth analysis of the role of culture and history in the development of corruption, but we can point out when the legacy of the past no longer fits modern conditions. Our aim is not to set a universal standard for where to draw the legal line between praiseworthy gifts and illegal, unethical bribes. Rather, we isolate the factors that should go into the choice. Culture and history are explanations, not excuses. Every country has experienced high levels of corruption at some point, but many have found a way to reduce both the amount of corruption and the impact it has on society.⁵⁵ At the same time, we recognize that corruption can influence culture, especially trust and honesty. If corruption increases, it has an adverse impact on societal values, leading to cynicism.

The third dimension considers how the basic structure of the public and private sectors produces or suppresses corruption. We examine the relationship between corrupt incentives and democratic institutions and discuss the relative bargaining power of public and private organizations and individual actors. Reform at this level may well require changes in both constitutional structures and the underlying relationship between the market and the state.

⁵⁴ Those interested in specific sectors are referred to Campos and Pradhan (2007). TI's Global Corruption Report series (available at <http://www.transparency.org/research/ger>) (accessed September 28, 2015); Graycar and Smith (2011); Søreide and Williams (2014); Rose-Ackerman and Søreide (2011); Klitgaard (1988); and the sector-specific sites linked under "Focus Areas" on TI's homepage (<http://www.transparency.org/>) (accessed September 28, 2015).

⁵⁵ See Chaves and Goldin (2006a) for a series of essays on how the United States reduced corruption during the late nineteenth and early twentieth centuries.

The final section of the book turns to the difficult issue of achieving reform. Even if a government is aware of corruption, it may have no incentive to undertake reform, unless domestic or international actors exert pressure to do so. Proposals for reform lead to the problem of domestic political will. Good ideas are useless unless someone is willing to implement them. Which domestic conditions are most likely to convince leaders that fighting corruption is worthwhile? We draw some lessons from successful and sustainable policies carried out in the past. Although no two countries face the same set of background conditions, modern-day reformers can learn something from the historical record. We bring in the international community, aid and lending organizations, cross-national civil society groups such as TI or Global Witness, and multinational economic and political bodies. For some countries, especially those at low levels of development, the role of multinational businesses is critical. If these firms collaborate in maintaining corrupt regimes, they undermine development goals. Finally, we assess international efforts to control money laundering, often associated with high-level corruption:

This book does not end with a compilation of "best practices." Instead, it suggests a range of alternatives that reformers must tailor to the goals of reform and the conditions in individual countries and sectors. Combating corruption is a means to an end. That end may be efficient production and development, impartial and equitable government, human development and flourishing, or goals related to the performance of a particular sector such as health, education, or national defense. The appropriate reform needed to be tailored both to the immediate incentives surrounding the corrupt act, and to the broader institutional context – both formal political and market institutions and the informal institutions arising from a society's culture.

We stress one fundamental lesson. Reform should not be limited to the creation of "integrity systems" or "anti-corruption agencies." Instead, fundamental changes in the way government operates ought to be at the heart of the reform agenda. The primary goal should be to reduce the underlying incentives to engage in corruption *ex ante*, not to tighten systems of ex post control. Enforcement and monitoring are needed, but they will have little long-term impact if reforms do not reduce the basic conditions that encourage payoffs. If these incentives and institutions remain, the elimination of one set of "bad apples" will soon lead to the creation of a new group of corrupt officials and private bribe payers.

CHAPTER 1 APPENDIX

Cross-Country Measures of Corruption

In this appendix, we explain some of the individual surveys that are used to calculate the CPI and the CCI. This is not a comprehensive list of data sources on corruption and related topics: there are now scores of data sets emerging from cross-country to geographically specific, and more are developed every year.¹ The purpose of this appendix is merely to give an overview of the type of data and the number of countries included in each. Although all sources are expert opinion or executive surveys – commonly referred to as "elite surveys"; only five public surveys are used in calculating the CCI, three of which are regional. The sources used in calculating

most of data sets is available at TI's Anti-Corruption Research Network, "Datasets," <http://corruptionresearchnetwork.org/resources/datasets> (accessed September 27, 2015). Thøgersen and Hodess (2011) identify three stages in the historical development of corruption measurement: (1) composite indices such as the CPI; (2) "comparative" level assessments that allow for cross-country comparisons in space and time; and (3) country-specific, sector-specific microanalyses, which aim to examine the causes of corruption and the effects of policies in specific contexts. We have not followed this progression because we are more interested in explaining what the cross-country data represent. There are several methodologies in the third category that are omitted here, including, but not limited to Public Expenditure Tracking Surveys (PETS), which compare funds disbursed at one level of government to those received or disbursed at the next level (Remikka and Svensson 2006; Sundet 2008); cost-benefit analyses, which compare projected budgets in public works to actual costs (Engerman and Flyvbjerg 2007; Flyvbjerg and Molloy 2011); mismatches between cumulative public expenditure on infrastructure (Golden and Saks 2006); physical audits of roads, comparing core samples to materials reportedly used (Saks 2007, 2009); proportional convictions on corruption charges (Corporate Crime Reporter 2004; Glaeser and Saks 2006); and the number of newspaper articles related to corruption (Morris 1991; Gentzkow, Glaeser, and Goldin 2006).