

PART 2

Measuring Corruption

Measuring corruption is important for focusing public policy, for devising anticorruption strategies and for monitoring the phenomenon. However, most forms of corruption are unobservable, making them hard to measure directly. Most measures are, therefore, subjective and perception-based. This leads to conceptual ambiguity and methodological uncertainty, thus creating considerable difficulties for satisfactory measurement. It is estimated that a relatively large share of the billions of dollars marked for the public good every year, for example, ends up in unintended private pockets. Yet there is really no way to ascertain the true value, scale and cost of corruption. Even if corruption were a highly visible, other obstacles to measuring its true cost remain. The lack of a universal definition of corruption undermines the possibility of meaningful comparison. And then there is no single metric to gauge adequately its magnitude and costs.

The papers in this section analyse a range of methods used to measure corruption, and propose alternative methodologies to the popular indices in use. While the commonly used corruption indices – Transparency International’s corruption perceptions index (CPI) and the World Bank’s control of corruption index (CCI) – are useful, there is considerable debate over their adequacy. These indices are based on ‘perception’ and most often used by the international business community as one indicator of the suitability of a country for international capital and investment.

The gap between ‘perceived’ and ‘experienced’ corruption is wide, but efforts have been made – and continue to be made – to build measures that incorporate more objective and directly measurable indicators. A corruption vulnerability index, which one paper in this section attempts to construct, charts the ‘climate’ of corruption by identifying directly observable, measurable and structural factors that make a country vulnerable to corruption.

Through an examination of the current measures, and drawing lessons from these valuable attempts at measurement, the pages in this section of the book offer insight on how corruption might be measured in light of human development and the availability of data.

4

Measuring Corruption

A Critical Assessment and a Proposal

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ABSTRACT

High-quality data on corruption is fundamental both to the analysis of corruption, and the design and assessment of anti-corruption programmes. Thus, a discussion of the methodological issues involved in the measurement of corruption is a central task in work on corruption. This paper contributes to this task by critically assessing the methods currently used to measure corruption and by elaborating a methodology for measuring corruption. The paper considers various definitions of corruption and suggests a consensus has developed regarding a working definition of corruption that can be used in work on measurement. It reviews a large range of methods, with an eye to ascertaining what aspects of the concept of corruption can be adequately measured with available methodologies, and identifies advances in, and persistent challenges to, measurement. It evaluates methods used to produce corruption indices, and discusses the problems entailed in creating indices that allow for cross-country and inter-temporal comparisons. Finally, it suggests how corruption might be measured in light of a concern with human development and the availability of data in Asia and the Pacific.

Keywords: Corruption, Measurement, Data, Indices, Methodology

1. INTRODUCTION

Generating valid and reliable corruption data is difficult. Skeptics even ask whether it is even possible to measure corruption. But the efforts of international organisations, multilateral development banks, private corporations, non-governmental organisations, and universities, especially since the mid-1990s, have brought about an important change to the debate about the measurement of corruption. Increasingly, the question ‘Can corruption be measured?’ is being replaced by other less provocative questions. Indeed, as more methods to measure corruption have been proposed and as more data on corruption have been made available, it has become more pertinent to ask empirical researchers and practitioners to justify why they use one of various available alternative methodologies or data sets than to ask them to justify why they use quantitative measures of a complex phenomenon such as corruption. Given the growing availability of data on corruption, it has become increasingly pertinent for methodologists to take stock of what has been learned from more than a decade of work on the measurement of corruption and to draw lessons regarding how such measures might be improved.

This paper critically assesses methods used to measure corruption and proposes how the UNDP might measure corruption. A review of definitions of corruption suggests that a consensus, appropriate for the purpose of measurement, has emerged. A two-part assessment of measurement methods follows. The first part surveys a large range of methods with a key question in mind: What aspects of corruption are measured? This assessment highlights recent advances in measuring corruption and addresses enduring difficulties in measuring

some forms of corruption. The second part focuses on a subset of measures, cross-country, longitudinal indices, and considers the issues involved in producing indicators that allow for cross-country comparisons over time, and indices that aggregate multiple indicators. Thus, this section considers two new questions: How comparable are the measures? And, how valid are the indices? While acknowledging the complexity of the task of developing cross-country, longitudinal indices, our assessment shows that these indices are riddled with methodological problems. Finally, we suggest how the UNDP might measure corruption in light of its concern with human development and the availability of data on Asia and the Pacific. Specifically, we elaborate a methodology for a new index of corruption and for various indicators that address the responsibility of all relevant actors.

Throughout, we draw on contributions from various disciplines and seek to bridge the work of academics and practitioners. But we do not address the larger literature on the causes and consequences of corruption, or on anti-corruption reforms,¹ both of which depend on good measures of corruption. We focus squarely on measurement.

2. DEFINING CORRUPTION

Choices about corruption measurements presuppose a definition of ‘corruption’. But ‘there is no single, comprehensive, universally accepted definition of corruption’ (Langseth 2006). And the standard debate about definitions has provoked some frustration.² Nonetheless, ongoing and seemingly irresolvable definitional disputes have not prevented the emergence of sufficient consensus on a working definition that can anchor a discussion on measurement.

TABLE 1: Defining Corruption. I. Criteria to Identify Corrupt Behaviour

Criteria	Examples	Assessment
Legal or 'public office-centered': Legal norms for public-office holders	<ul style="list-style-type: none"> 'Corruption is behaviour which deviates from the <i>formal duties of a public role</i> because of private-regarding (personal, close family, private clique) pecuniary or status gains; or violates <i>rules</i> against exercise of certain types of private-regarding influence.' (Nye 1967, italic added). 	Facilitates operationalisation, but is not well justified. Specifically, it assumes (i) that all corrupt acts are illegal, when not all illegal acts are necessarily corrupt, and conversely, not all seemingly corrupt acts are illegal, and (ii) that all legal codes are the same, when the evidence suggest that this is not the case. Thus, it passed the burden of definition on to legislators and is a relativistic standard.
'Public interest-centered' (common good)	<ul style="list-style-type: none"> '... corruption can be said to exist whenever a power holder who is charged with doing certain things, i.e. who is a responsible functionary or officeholder, is by monetary or other rewards not legally provided for, induced to take actions which favor whoever provides the rewards and thereby does damage to <i>the public and its interests</i>' (Friedrich 1966, italic added). 'A corrupt act violates responsibility toward ... public or civic order ... [which] exalts common interest over special interest; violations of <i>common interest</i> for special advantage are corrupt' (Rogow and Laswell 1963, italic added). 	Difficult to operationalise, and confuses the phenomena of interest with its effects. It also suggests that we can know what the public interest is and that corrupt behaviour is never compatible with socially beneficial results.
Public opinion (social norms, moral standards)	<ul style="list-style-type: none"> 'Where the best <i>opinion and morality of the time</i>, examining the intent and setting of an act, judge it to represent a sacrifice of public for private benefit, then it must be held to be corrupt.' (Senturia 1935, italic added). 	It assumes that the public has a shared concept of corruption, even though the evidence suggests that public conceptions about what constitutes corruption might vary across time and space, as well as among sectors of the public. Thus, it passed the burden of definition (and measurement) on to the public and is relativistic.
'Market-centered'	<ul style="list-style-type: none"> 'A corrupt civil servant regards his <i>public office as a business</i>, the income of which he will... seek to maximise. The office then becomes a 'maximising unit'. The size of his income depends... upon the market situation and his talents for finding the point of maximal gain on the public's demand curve' (Van Klavern 1957, italic added). See also Leff (1964). 	Rests on a prior (unarticulated) conception of the principles that should guide the behaviour of public officials.
Principal-agent relationships	<ul style="list-style-type: none"> Corruption is 'the divergence between the principal's or the public's interests and those of the agent or civil servant: corruption occurs when <i>an agent betrays the principal's interest in pursuit of her own</i>.' (Klitgaard 1988, italic added). See also Rose-Ackerman (1978, 1999). 	This criteria has the same shortcomings of 'public interest-centered' definitions.

2.1 The Debate About Definitions

The debate about how to define corruption has been framed as a choice among different ways of specifying the criteria to distinguish corrupt from non-corrupt behaviour or, in other words, the standard from which corrupt behaviour is held to deviate. Scott (1972) distinguished among definitions based on legality, public interest and public opinion. Heidenheimer (1970; 1989) introduced the idea of marketcentered definitions. And, more recently, definitions surrounding principal-agent relationships have gained currency (see Table 1 for examples of these five ways of defining corruption).³

These efforts to define corruption have not been fruitful. First, as the contributors to this debate acknowledge, several definitions are largely a restatement of other definitions (Heidenheimer and Johnston 2002; Philip 2002) or are more a description of the mechanisms of corruption than an actual definition (Heywood 1997). Second, each of the five ways of defining corruption has major weaknesses (see Table 1).⁴ These definitions sometimes exclude elements that are central to corruption, and sometimes include extraneous elements, which are better considered as causes or consequences, or as related concepts. And several definitions are not clearly operationalisable or are operationalised through relativistic standards that undermine the possibility of comparison. Though definitional disputes cast in terms of these five definitions continue, it seems clear that this debate has reached an impasse.

2.2 A Working Definition

The lack of progress in attempts to specify a criterion to distinguish corrupt from non-corrupt behaviour has, fortunately, not impeded the emergence of substantial

agreement on a working definition of corruption. To begin, the pithy and oft-repeated definition of corruption as ‘the misuse of public power for private profit’ (Senturia 1935)⁵ pinpoints whose behaviour is at stake, that is, holders of public office. This definition does not settle all questions. Many authors argue that such a focus on public officials is too narrow and suggest that corruption refers not only to people who hold public office but also to private actors who have been ‘entrusted’ with ‘public roles’. Others would include private actors who, as possessors of economic power, have the means of corrupting public officials, under the concept of corruption. Nonetheless, there is no dispute that a definition of corruption necessarily refers to public officials and that, since holders of public office have a unique power – the authority to make decisions that are legally binding on society – there is a solid basis for arguing that corruption, at its core, refers to a standard of behaviour society uses to evaluate those who, elected and not, occupy positions within the state.⁶

In turn, there is an important degree of agreement regarding what acts of public officials constitute corrupt behaviour. Researchers have proposed an inventory of acts of corruption that shows a great degree of overlap (see Table 2). Moreover, there are signs of convergence within the international community. Corruption has been increasingly recognised as a problem, as attested by the 1996 Inter-American Convention Against Corruption, the 2001 Anti-Corruption Action Plan for Asia and the Pacific and, finally, the 2003 United Nations Convention against Corruption.⁷ In addition, the international community appears to be converging on a shared understanding of what behaviours by public officials should be considered corrupt. Indeed, though the language in international anti-

TABLE 2: Defining Corruption II. An Inventory of Acts of Corruption by Public Officials

	Researchers			International community		
	Amundsen (2000)	Johnston (2005)	Langseth (2006)	Inter-American Convention Against Corruption (1996)	Anti-Corruption Action Plan for Asia and the Pacific (2001)	United Nations Convention against Cor- ruption (2003)
Bribery	✓	✓	✓	✓	✓	✓
Embezzlement	✓	✓	✓			✓
Fraud	✓	✓	✓			
Extortion	✓		✓			
Illicit enrichment				✓		✓
Illicitly obtained benefits for oneself or third party				✓		
Gift, favour, promise or advantage for oneself or another person or entity				✓		
Favouritism and/or nepotism	✓	✓	✓		✓	
Abuse of discretion			✓		✓	
Conflicting Interests		✓	✓		✓	
Abuse of functions						✓
Trading in influence					✓	✓
Improper political contributions				✓		

corruption conventions and initiatives varies – differences are sometimes due to the use of different terms to refer to fairly similar behaviours, and sometimes they are due to the use of more or less abstract terms – a close look at the texts of various documents does not reveal substantial disagreements.⁸

Some authors argue that providing a list of acts of corruption does not fully solve the challenge tackled in the literature that seeks to define corruption (Johnston 1996; Philip 2002; Brown 2006). And the debate surrounding whether corruption is a culture-bound or universal concept is ongoing. Yet, recognising the importance of a definition of corruption and without precluding the need to revisit the meaning of the concept of corruption, there is sufficient agreement regarding *who* the

relevant actors are and *what* acts should be addressed to consider these proposals as a working definition of corruption that can serve as the point of reference in the subsequent discussion about measurement.

3. METHODOLOGIES TO MEASURE CORRUPTION

Attempts to measure corruption run up against a certain degree of skepticism, often manifested in lingering questions such as, ‘Can corruption be measured?’ And, as expected, the responses tend to be quite at odds. Several researchers state quite bluntly, ‘corruption is likely to remain impossible to measure directly for the foreseeable future’ (Johnston and Kpundeh 2002; Johnston 2002). While others, usually those who have

proposed some measure of corruption, respond to this question much more optimistically. For example, Kaufmann (2005) labels the view that corruption cannot be measured ‘a myth’.

However, the real debate about measuring corruption has moved well beyond such stark alternatives. Indeed, in light of the large amount of work dedicated to the measurement of corruption over the last decade, the question itself – Can corruption be measured? – has become somewhat irrelevant. The crux of the matter is that those who observe or engage in acts of corruption usually have little incentive to their knowledge. Hence, no one disputes that corruption is one of the most difficult concepts in the social sciences to measure. Thus, the challenging questions are: What are the best available measures of corruption? And, how can we develop better measures?⁹

Answering these questions is not easy. A quick glance at the survey offered in Table 3 reveals that the concepts being measured differ considerably and that the methodologies used to generate the measures are diverse. Thus, an assessment of efforts to measure corruption necessarily involves the consideration of a broad range of methodological issues. Yet, as we show, several key conclusions can be drawn regarding:

- (i) what aspects of the concept of corruption can be adequately measured with available methodologies, the focus of this section.
- (ii) how to produce indicators that allow for cross-country and over time comparisons, and indices that aggregate multiple indicators, two questions addressed in the following section.

3.1 Beyond Perceptions

The development of methods to measure corruption has advanced greatly in recent

time. The initial measures of corruption proper, in the 1980s, were based on expert ratings, typically by analysts of commercial risk assessment businesses (for example, Business Environment Risk Intelligence, Economist Intelligence Unit, Global Insight, Political Risk Services), and on surveys of business executives (for example, the Executive Opinion Survey of the Institute for Management Development). Relying on these and a few other data sources rather than generating new data, several ambitious efforts to construct indices of corruption were launched in the mid-1990s, including Transparency International’s (TI) corruption perceptions index (CPI) and the World Bank’s control of corruption index (CCI). And, subsequently, important research that builds on but also departs from these earlier works has been undertaken.

The work over the last decade has broken with previous attempts at measurement, most broadly, because it seeks to develop non-perceptions based measures. The first index of corruption, Transparency International’s CPI, did much to focus world attention on the problem of corruption. But, since the CPI was launched in 1995, the shortcomings of measures based on perceptions were exposed.¹⁰ The problem is that perception-based measures do not convey information about acts or events observed, as reported by a respondent to a survey questionnaire or verified through documentation about observables by expert raters. Indeed, they tell us more about the views of the survey respondents or the experts than about corruption itself.

Seeking to overcome this weakness of early measures, researchers have made several significant innovations. Much work was done to improve surveys, by writing questionnaires that asked respondents about their experiences as opposed to their perceptions. On the grounds that business

TABLE 3: Methodologies to Measure Corruption I: An Overview

Concepts Measured	Data Collection Methods	Measures	Examples
I. Corruption Proper			
Corruption and bribes	<ul style="list-style-type: none"> • Expert ratings. • Survey, of business leaders. • Survey, of senior executives, of domestic and foreign firms. • Surveys, of the general public. • Survey, of business leaders, and expert ratings. • Survey, of business leaders and the general public, and expert ratings. • Survey, of managers and owners of firms. • Surveys, of the general public. • Focus groups, followed by surveys, of street-level officials and the public. 	<ul style="list-style-type: none"> • Level of corruption.* • Frequency and size of bribes, and other forms of corruption.* • Frequency of bribes demanded and offered. • Perceived level and site of corruption, frequency and cost of bribes. • Perceived level of corruption. • Perceived level of corruption. • Frequency, cost and motives of bribes offered by firms. • Nature of, frequency of, and category of public official engaging in corrupt behaviour, as experienced by the public; sometimes perceptions of corruption are also provided. • Frequency of bribe taking by street-level officials and bribe giving by the public. 	<ul style="list-style-type: none"> • Business Environment Risk Intelligence, Economist Intelligence Unit, Global Insight, Gallup International, Political Risk Services.* • Institute for Management Development's Executive Opinion Survey (IMD 2006), World Economic Forum's Executive Opinion Survey (Porter et al. 2005). • Transparency International's Bribe Payers Index (Transparency International 2002b). • Transparency International's Global Corruption Barometre (GCB) (Transparency International 2005). • Transparency International's Corruption Perceptions Index (CPI) (Lambsdorff 2005), ** Opacity Index (Kurtzman et al. 2004), *** • World Bank's Governance Indicators/Control of Corruption index (Kaufmann, Kraay and Mastruzzi 2006a).** • EBRD-World Bank Business Environment and Enterprise Performance Survey (BEEPS) (Hellman et al. 2000; World Bank 2002; EBRD 2005; Svensson 2003; World Bank 2006b). • International Crime Victim Survey (ICVS) (ICVS International Working Group 2006), Latin American Public Opinion Project (LAPOP) (Seligson 2006). • Miller (2006a; 2006b).
Corruption, bribes, misappropriation of public funds, nepotism, cronyism and patronage			
Bribes and extortion			

Concepts Measured	Data Collection Methods	Measures	Examples
'Leakage' of public funds	<ul style="list-style-type: none"> Official budget data and estimate of actual cost calculated by independent means (survey of service delivery facilities, such as schools or hospitals). Official expenditures data and estimate of actual cost calculated by independent means (estimates by experts, that is, engineers and surveys, and survey and interviews to determine prices for materials and wages). Official expenditures data and estimate of actual cost calculated by independent means (other publicly available data, estimates by experts). Official data on procurement prices. 	<ul style="list-style-type: none"> Difference between budget allocations and actual spending through various tiers of government, including the front-line service delivery points. Difference between reported expenditures and estimated actual expenditures. Difference between a measure of the physical quantities of public infrastructure and the cumulative price government pays for public capital stocks. Difference between procurement prices of publicly-purchased goods before and after initiation of official monitoring campaign. Level of existence in law and in practice of institutions and practices that can help to control or reduce existing corruption. Comparison of a country's legislation and the implementation of this legislation to international standards (e.g. the obligations assumed under various conventions). 	<ul style="list-style-type: none"> Public Expenditure Tracking Survey (PETS) (Reinikka and Svensson 2006). Olken (2005). Golden and Picci (2005). Di Tella and Schargrofsky (2003). Global Integrity's Public Integrity Index (PII) (Camerer 2006), Transparency International's National Integrity System (NIS) (Doig and McIvor 2003; Transparency International 2006). Council of Europe's Group of States against Corruption (GRECO evaluations) (Council of Europe 2006), OECD Anti-Bribery Convention Country Reports (OECD 2006).
II. Opportunities, and Actions, to Prevent Corruption			
Integrity: avenues for citizen involvement and checks and balances within the government	<ul style="list-style-type: none"> Expert judgements, based on a review of legislation, governmental and non-governmental reports, news media coverage, corruption diagnostics, academic analysis, expert interviews and focus group discussions. 		
Proceeds of corruption, transparency in public administration, shielding of corruption offenses, bribery	<ul style="list-style-type: none"> Documents, interviews and official written response to questions about measures taken to prevent, detect and punish various forms of corruption. 		

Concepts Measured	Data Collection Methods	Measures	Examples
<p>Meritocratic appointment in civil service recruitment and promotion</p> <p>Red tape removal</p> <p>Prosecutions of public officials on corruption charges</p>	<ul style="list-style-type: none"> Fixed response questionnaire filled out by experts on state bureaucracies. Regulations to open a new business. Police and court records. 	<ul style="list-style-type: none"> Frequency of use of formal examination system for recruitment and promotion, number of political appointees. Number of procedures, days and cost to register a business. Number of arrests, prosecutions and convictions. 	<ul style="list-style-type: none"> Evans and Rauch (1999). World Bank (2006a). Schlesinger and Meier (2002), Glaeser and Saks (2004).
III. Attitudes Toward Corruption			
	<ul style="list-style-type: none"> Survey, of public sector employees. Survey, of police officers. Interviews, with politicians and voters. Focus groups, followed by surveys, of street-level officials and the public. 	<ul style="list-style-type: none"> Addresses how and why public sector employees define some behaviours as corrupt, and what factors which may hinder public sector employees taking action about corruption which they may observe at work. Attitudes toward corruption and knowledge of rules of conduct among police officers. Convergence and divergence between elite and public judgments of specific behaviours. Values and hypothetical behaviour of street-level officials and the public. 	<ul style="list-style-type: none"> Gorta and Forell (1995). Klockars et al. (2000), Johnson (2003), Ivkovic and Shelley (2005). Jackson and Smith (1996). Miller (2006a; 2006b).

Notes: * The methodology used to produce these data, and the resulting measures, are not publicly available. Hence, it is hard to describe these sources of data.

** Transparency International's Corruption Perceptions Index (CPI) and the World Bank's Governance Indicators/Control of Corruption index uses an array of data sets, including data from Business Environment Risk Intelligence (BERI), the Centre for International Earth Science Information Network (CIESIN) at Columbia University, the Economist Intelligence Unit, Freedom House's *Nations in Transit*, Global Insight, Gallup International, the Institute for Management Development (IMD), the Political and Economic Risk Consultancy (PERC), the Political Risk Services (PRS), the United Nations Economic Commission for Africa (UNECA), the World Economic Forum (WEF), and the various regional barometres.

*** The Opacity Index uses data from the Political Risk Services (PRS), the World Economic Forum (WEF), and Transparency International's Corruption Perceptions Index (CPI).

people are likely to be more knowledgeable than the general public about grand corruption, measures about the bribing of high government officials were elaborated using surveys of firm owners and managers. A good example of this is the attempt to measure state capture through the World Bank and European Bank for Reconstruction and Development's Business Environment and Enterprise Performance Survey (BEEPS) (Hellman et al. 2000; World Bank 2002).¹¹ Similarly, recognising that the general public has direct experience with petty corruption, attempts to measure this form of corruption have used nationally representative surveys of the general public. An example of this work is the International Crime Victim Survey (ICVS) (ICVS International Working Group 2006).¹²

Other efforts to elude the problem with perception-based measures focused on generating data using direct observation. McMillan and Zoido (2004) provide evidence of the frequency and value of bribes offered by a state agent to politicians, judges and TV-channel owners using actual

receipts, videotapes, and audiotapes. Though such strong direct evidence is obviously hard to come by on a regular basis, researchers have, nonetheless, found ways to construct various measures of the 'leakage' of public funds, that is, the expenditures made by governments that go missing (Reinikka and Svensson 2006; Olken 2005; Golden and Picci 2005; Di Tella and Schargrotsky 2003). In short, important steps have been taken to move beyond perception-based measures of corruption.

3.2 What Aspects of Corruption are Measured?

The available methodologies cover many but not all aspects of corruption proper (see Table 4). They span two broad types of corruption, grand and petty corruption or, to use different terms, political corruption, which concerns the making of laws and rules, and administrative or bureaucratic corruption, which relates to the implementation of laws and rules. They largely focus on bribery and many measures have been

TABLE 4: Methodologies to Measure Corruption II: An Assessment

Strengths	Weaknesses
<ul style="list-style-type: none"> • Coverage of various types of corruption proper, including grand and petty corruption; or political corruption (related to the making of laws and rules and administrative or bureaucratic corruption (related to the implementation of laws and rules). • Data on the frequency (and sometimes the size) of bribes paid by businesses. • Data on the size of leakage of public funds. • Data on the experience of the general public with corruption, disaggregated by category of public official engaging in corrupt behaviour. • Data on multiple units: macro (country), meso (branch, policy area and sub-national unit of the government; firms and social groups), and micro (individuals). 	<ul style="list-style-type: none"> • Emphasis on bribery relative to other forms of corruption. • Information about bribes does not give us an indication of the value of public resources affected by transactions. • Information about leakage of public resources does not give us an indication of the leakage mechanism.

interpreted from the perspective of the concern of international business with predictable and non-discriminatory rules for foreign investors (Johnston 2002; Galtung 2006). Nonetheless, the charge that measures of corruption are biased toward the concerns of business does not apply to many of the recently developed methods. Crime victimisation surveys address the situation of the population as a whole. And measures of leakage offer an estimate of public funds that are diverted from public projects.¹³

The specific measures on different aspects of corruption have strengths and weaknesses. The available methodologies allow us to ascertain, among other things, the frequency and even the size of bribes paid by businesses to public officials. But this information does not give us an indication of the value of public resources affected by these transactions. In turn, the available data provide extremely valuable information about the size of leakage of public funds, which serves to quantify the losses due to embezzlement. But an estimate of the public resources gone missing does not give us an indication of the leakage mechanism.

More nuanced information is offered, nonetheless, by other measures. The data on petty corruption are disaggregated by the category of public official engaging in corrupt behaviour. Thus, it is possible to identify who did what to whom with regard to certain forms of corruption. And the available methodologies have become more informative in the sense that national level measures have been supplemented by meso-level measures, on branches, policy areas and sub-national units of the government, and on firms and social groups, and by micro-level data, on individuals. These data are particularly useful to better pinpoint

who is engaging in corrupt acts and where within the state such practices occur.

Going beyond corruption proper, a range of methods have been developed to tap in to the 'opportunities, and actions, to prevent corruption' and 'attitudes toward corruption' (see Table 3). The measurement of these concepts is central to the analysis of corruption. The opportunities and actions to prevent corruption are crucial to a discussion of institutional reforms oriented to reduce corruption. In turn, measures of attitudes toward corruption are key to a discussion of actors and hence programs of education and training oriented to reducing corruption. It is worth stressing, nonetheless, that these measures are useful for such purposes only inasmuch as they are not interpreted as measures of corruption proper, a distinction that is not always made clearly enough,¹⁴ and that they are generated in addition to, and not instead of, measures of corruption proper.

In sum, this review of methodologies shows that important steps have been taken in the measurement of corruption. Methods to measure both political and administrative corruption, two broad forms of corruption, have been proposed and used. But important challenges remain. We still lack methodologies to measure all the main manifestations of corruption. In particular, while bribes, extortion, and embezzlement have been addressed, there is little work on issues such as fraud, conflicting interests, favouritism, and nepotism. Moreover, as the next section shows, several of the measures that have been developed suffer from limitations, in that they rely on methodologies that have serious weaknesses with regard to production of measures that allow for cross-country and inter-temporal comparisons, and the aggregation of multiple indicators.

4. CROSS-COUNTRY, LONGITUDINAL, INDICES OF CORRUPTION

Of all the methodologies available to measure corruption, the subset used to generate cross-country, longitudinal indices, merit particular attention. These indices have a major impact on the way countries are described, by virtue of the publicity they receive in the media, and on views about the causes and consequences of corruption, due to their use in a large body of research primarily by economists (Mauro 1995; Kaufmann 2005; Lambsdorff 2006a). Moreover, an assessment of these indices requires a discussion of some distinct methodological issues, not touched on in the previous section, regarding cross-country and over-time comparisons, and the aggregation of multiple indicators. Thus, the following discussion addresses these issues by focusing on a set of cross-country, longitudinal indices spanning at least 30 countries and two points in time (see Table 5).¹⁵

4.1 How Comparable are the Measures?

Developing measures of corruption across time for a large number of countries is a demanding task. Hence, the ambitiousness, particularly in terms of empirical coverage, of two of the most widely publicised and used indices – Transparency International’s (TI), corruption perceptions index (CPI) and the World Bank’s control of corruption index (CCI) – deserves to be highlighted. The fact that measures of corruption of practically global scope are produced, and made publicly available at regular intervals of time, is an important accomplishment. At the same time, it is important to discuss the weaknesses of existing indices.¹⁶

One critique is the continued reliance on perceptions by most of these indices (see Table 6). Data based on perceptions, as pointed out above, are generally problematic, in that they tell us more about the respondents than about corruption itself. But, questions about perceptions are also a particularly troublesome source of comparative data. Specifically, once the reputation of a country has been established – in part through media attention to CPI rankings and the publication and diffusion of other corruption indices – it appears that subsequent measures are strongly affected by previously published measures, and thus are not independent measures (Andvig 2005; Knack 2006; Søreide 2006).¹⁷ There are also grounds for believing that measures may reflect certain observable factors, such as poverty or poor economic performance, which are assumed to be consequences of corruption and hence used to impute (backwards) the presence of corruption (Weber 2005; Seligson 2006). In either case, because these measures are not firmly rooted in first-hand experience with corruption, it is hard to have strong confidence in inter-temporal comparisons.

These problems are compounded by the wording of questionnaires and the design of samples. Because ‘corruption’ can mean many things, questions that invoke the term without defining it are of little use in an attempt to estimate the level of corruption across countries or over time. Indeed, it is hard to compare the responses from such vaguely worded questions in any meaningful way. Yet, such practices are common in the questionnaires used to produce indices. Likewise, when different questionnaires that use different questions are combined to produce an index, the lack of uniformity in the questions weakens the basis for comparison. But some cross-country indices are assembled from multiple surveys in any

TABLE 5. Cross-Country, Longitudinal, Indices of Corruption I: An Overview

Name of Index	Producer of the Data	Concept Measured	Indicators	No. of Indicators	Aggregation Rule	Scope of Data	Data-Collection Method
Control of Corruption Index (CCI)*	World Bank (http://www.worldbank.org/wbi/governance/data.html) (Kaufmann et al. 2006a)	Corruption	Corruption within the state. Nepotism, cronyism and patronage in the civil service. Costs of corruption. Public trust in financial honesty of politicians. Diversion of public funds due to corruption. Frequency of extra payments made by firms. Anti-corruption policies. Number of corrupt parliamentarians, judges, and government officials.	36	Unobserved Component Model: Weighted average of the sources for each country, where the weights are proportional to the reliability of each source	1996-present (yearly), 151 countries (and territories) in 1996, 184 in 1998, 187 in 2000, 197 in 2002, 204 in 2004, 213 in 2005	19 surveys of business leaders and the general public, and assessments by country analysts, of different scope; only 1 source per country is required
Corruption Index**	World Economic Forum (WEF) (www.weforum.org) (Porter et al. 2005)	Bribery	Bribes for import and export permits. Bribes for getting connected with public utilities. Bribes in connection with annual tax payments.	1	Averages	1996-present (yearly), 117 countries in 2005-06	The Executive Opinion Survey of over 11,000 business leaders and entrepreneurs
Corruption Perceptions Index (CPI)	Transparency International (www.transparency.org) (Lambsdorff 2005)	Corruption	Severity of corruption within the state. The misuse of public office for private (or political party) gain. Extent of corruption as practiced in governments. Implementation of anti-corruption initiatives.	1	Averages	1995-present (yearly), 156 countries in 2005	16 surveys of business leaders, and assessments by country analysts, of different scope; at least 3 sources per country are required

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Name of Index	Producer of the Data	Concept Measured	Indicators	No. of Indicators	Aggregation Rule	Scope of Data	Data-Collection Method
			Frequency and costs of bribes.	1			
			Bribery and corruption in the economy.	1			
			Corruption payable to the 'humblest clerk'.	1			
State Capture Index	World Bank and the European Bank for Reconstruction and Development (EBRD) http://info.worldbank.org/governance/beeps/ (World Bank 2002; EBRD 2005)	State Capture	Sale of Parliamentary votes on laws to private interests, or sale of Presidential decrees to private interests. Central Bank mishandling of funds Sale of court decisions in criminal and arbitration court cases. Contributions by private interests to political parties and election campaigns	2	Averages	26 countries in 1999, 27 in 2002, 28 in 2005	Business Environment and Enterprise Performance Survey (BEEPS), of managers and owners of close to 10,000 firms

Notes: NA = not applicable. (*) The Control of Corruption Index is part of the World Bank's Governance Indicators. (**) The Corruption Index is used as part of the World Economic Forum's (WEF) Public Institutions & Growth Competitiveness Indices.

TABLE 6: Cross-Country, Longitudinal, Indices of Corruption II: An Assessment

Name of Index	Strengths	Weaknesses
Control of Corruption Index (CCI)	Broad empirical scope.	Perceptions-based Vague and variable questions; variable sample design
	Attempt to construct an index encompassing many manifestations of corruption	Aggregation of conceptually unrelated indicators Questionable aggregation rule
Corruption Index (of the WEF)	Board empirical scope Uniform questionnaire	Perceptions-based
	Aggregation of conceptually relevant and similar indicators Simple and sensible aggregation rule	
Corruption Perceptions Index (CPI)	Board empirical scope	Perceptions-based Vague and variable questions; variable sample design
	Attempt to construct an index encompassing many manifestations of corruption	Aggregation of conceptually unrelated indicators Questionable aggregation rule
State Capture Index	Experience-based Uniform questionnaire	
	Aggregation of conceptually unrelated indicators Simple aggregation rule	Questionable aggregation rule

Notes: On each index or survey, the information above the dotted line refers to the comparability of the measures, and the information below the dotted line refers to the validity of the indices.

given year, and draw on different surveys and different questions asked over time. The desire to construct indices of broad empirical scope and to develop time series of these indices is understandable and such attempts deserve to be supported. Nonetheless, it is also important to underline the problems entailed in questionnaires that clearly were not designed to obtain equivalent measures across time and space.¹⁸ Finally, sample sizes and the respondent pool of the surveys used to generate indices also vary considerably, raising yet new questions about comparability.

Most existing indices are based on methodologies that do not avoid these pitfalls; the Business Environment and Enterprise Performance Survey (BEEPS), used to calculate the State Capture Index stands out as a laudable exception in this

regard (see Table 6). Thus, maybe it is a virtue that, due to the procedure used to standardise different indicators, the index values of the CCI are relative, and not absolute values and hence patently not useful for purposes of tracking developments over time. But the failure to offer measures that can be used to evaluate the results of anti-corruption programmes is a significant weakness. And the need for further work to develop and consistently apply an instrument suitable for measuring corruption across time and space must be duly recognised.

4.2 How Valid are the Indices?

The construction of indices is driven by the worthy aspiration to offer a summary measure that synthesises the information provided by multiple indicators. And the

more modest and uncomplicated indices are hard to criticise. The Corruption Index of the World Economic Forum (WEF) simply aggregates measures of the incidence of bribery in various spheres – import and export permits, connections to public utilities and annual tax payments – in a way that assigns equal weight to acts of corruption in each sphere. Likewise, the State Capture Index of the World Bank and the European Bank for Reconstruction and Development (EBRD), aggregates measures of political influence purchased through money with different institutional actors – the executive and legislature, the Central Bank, the courts and parties – and assigns an equal weight to acts of corruption in each institutional arena.

Certainly, some questions could be raised about these two indices. Thus, the Corruption Index would be more accurately labelled as a bribery index, so as to avoid its (mis)interpretation as a measure of the broader concept of corruption. The State Capture Index's assignment of equal weight to its indicators is somewhat debatable. But the construction of these indices essentially follows the never-to-be-forgotten KIS (Keep It Simple) maxim and hence avoids major methodological problems. Unfortunately, other indices, in their quest to encompass multiple manifestations of corruption, veer far away from this maxim and run into trouble.

The most basic problem with corruption indices is the practice of aggregating a diverse array of indicators with little regard to their conceptual meaning. Many of the indicators included in indices of corruption are not measures of corruption proper. Thus, the CCI aggregates indicators that measure the opportunities and actions to prevent corruption,¹⁹ as well as the consequences of corruption;²⁰ and the CPI

includes measures of anti-corruption initiatives (Lambsdorff 2005). Moreover, the procedure used to aggregate indicators does not take into consideration the possibility that different indicators might have different weights, something that is particularly relevant in light of the various forms of corruption included in the CPI and the CCI. Instead, the CPI's aggregation rule that assigns an equal value to all indicators is never justified. And the CCI gives greater weight to indicators that are more strongly correlated, even though its reliance on perception-based data suggests that a crucial assumption of this aggregation procedure – that the measures of the indicators are independent – does not hold.²¹

In sum, though the attempt to construct an index encompassing many manifestations of corruption is praiseworthy, ambitious attempts such as the CPI and CCI suffer from serious methodological weaknesses (see Table 6). Attempts at index construction should elaborate the conceptual foundation of indices more carefully and the underlying data used in such indices should be, inasmuch as is possible, collected explicitly for the purpose of elaborating an index.

5. A PROPOSAL FOR MEASURING CORRUPTION

This section proposes ways to measure corruption that address the UNDP's concern with human development, while drawing on the lessons derived from the assessment of methodologies provided above. It suggests how the concept of human development can be connected to that of corruption. It also proposes a new index of corruption and indicators that address the responsibility of all relevant actors, and offers an assessment of the availability of data on Asia and the Pacific. This proposal is necessarily tentative

and aims principally at directing and informing discussions to be carried out within the UNDP.

5.1 The Concepts of Corruption and Human Development

Most research that links corruption and human development posits a causal connection, usually focusing on the consequences of corruption for human development or for some aspect of human development. The standard approach is to consider the association between corruption and the Human Development Index (HDI) or some of the components of the HDI (Mauro 1998a, 1998b; Gupta et al. 2000; Akçay 2006). That is, corruption and human development are presented as two mutually exclusive concepts and corruption is evaluated in terms of its consequences.

A different perspective can be gained by distinguishing the concept of human development from the HDI and by recognising that the concept of human development is broader than the HDI (UNDP 2002; Fukuda-Parr 2003). This shift makes a significant difference. Once human development is understood in broader terms, as involving the expansion of people's choices and of human freedom (Sen 1999; UNDP 2006), corruption can be seen as a constitutive part of the broader concept of human development and not as something external to it. And, once this new perspective is adopted, it makes sense to interpret measures of corruption in terms of human development, and to treat corruption as intrinsically detrimental to human development and to see its elimination as an end in itself (Qizilbash 2001).

To be sure, an overall assessment of corruption should certainly address the contingent consequences on human development, which can only be determined

through empirical research. For example, if corruption is efficient, as some have suggested (Leff 1964), or substitutes for violence and contributes to political development, as others have argued (Huntington 1968), such a fact cannot be ignored. But, it is crucial to recognise that corruption entails some inherent costs through its immediate, and necessarily negative, impact on human development.

In making this connection between human development and corruption, a useful point of entry is Sen's argument that, in studying 'the process of expanding human freedoms', it is possible to distinguish the process and opportunity aspects of freedom. Both aspects, as Sen stresses, are valuable: the '*process* through which things happen' is crucial to an assessment of freedom and 'more freedom gives us more *opportunity* to achieve those things we value' (Sen 1999; 2002). Both aspects of freedom, moreover, can be directly linked to corruption.

Stated succinctly, corruption affects both *how* state decisions are made and *what* the state delivers to the population in such a way that human development, or human freedom, is necessarily diminished. That is, corruption unavoidably distorts the process whereby people's preferences are brought to bear on public policy-making by allowing private interests to override the preferences of the people constituted as a public. In turn, corruption necessarily reduces people's opportunities by reducing the public resources that are available and accessed by the public. Or, to propose a definition of corruption from the perspective of human development:

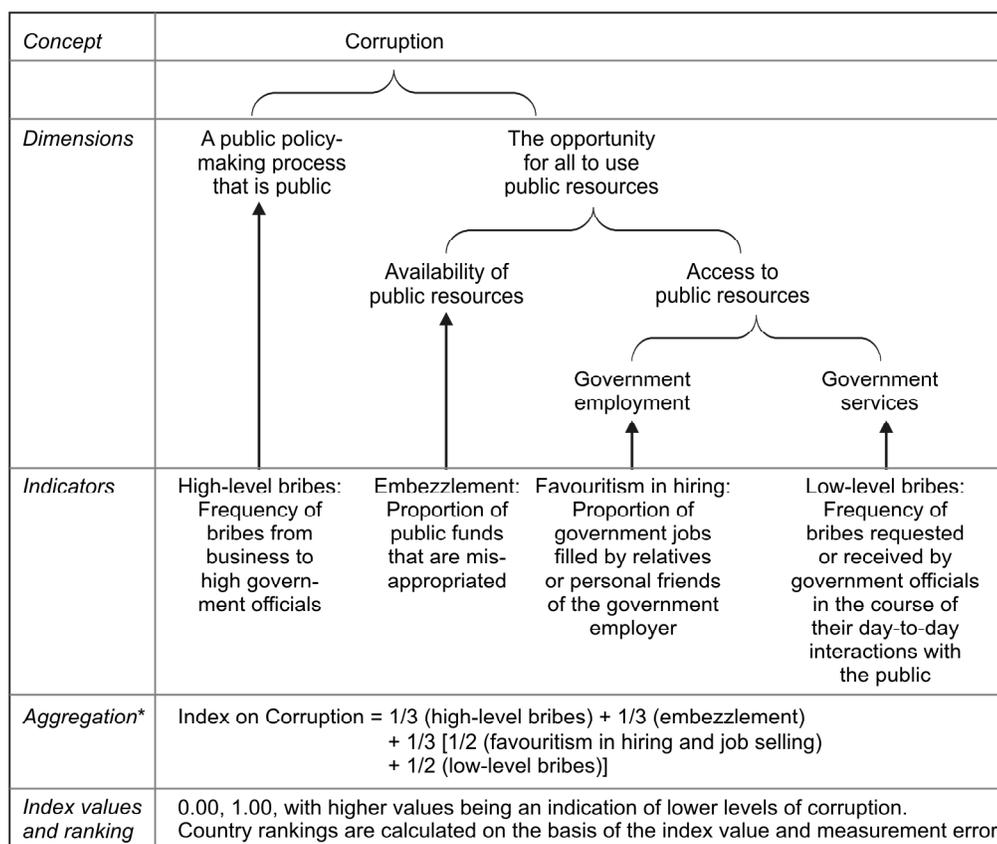
Corruption, the misuse of public power for private profit, contracts the *process* aspect of human development, by distorting public policy-making, and the *opportunity* aspect of

human development, by reducing the availability of public resources, and access to public sector jobs and public services.

5.2 An Index of Corruption

To measure this concept of corruption, in a way that draws on the lessons derived from the assessment of methodologies provided above,²² we propose an index that measures both the process-distorting and opportunity-reducing dimensions of corruption (see Figure 1). In a nutshell, this index posits an ideal: a public policy-making process that is public and the opportunity for all to use public resources. It assesses deviations from

this ideal through four indicators: seeing high-level bribes as an indication that the policy-making process has been privatised, embezzlement as an indication that the total amount of public resources that are available to the public has been reduced, and favouritism in hiring and low-level bribes as signs that access to public resources in government employment and services respectively have been tarnished by private interests. And, it encompasses acts of corruption involving different actors and situations: the interface between high-level public officials and business people, the decisions made by high-level policy-makers



Note: (*) Prior to aggregation, all the scales are normalised using a simple linear norming to the unit interval: Normalised value = Raw value/Maximum raw value

FIGURE 1: An Index on Corruption

and the use of public funds by all levels of public officials, and the interactions between low-level public officials and the public.

To collect data on these four indicators, we propose relying on surveys of three different groups and the following questions:

Indicator 1. High-level Bribes

- *Data Collection Method:* Survey of domestic and international business executives.
- *Question i:* If a new law, rule, regulation, or decree, that would have a substantial impact on firms in your line of business, is under consideration, would these firms typically:
 - know about the proposed law, rule, regulation, or decree?
 - attempt to affect their content?*Response Options:* No, Yes, Do not know.
- *Question ii:* If a new law, rule, regulation, or decree, that would have a substantial impact on firms in your line of business, is under consideration, which channel or channels would these firms rely on to try to affect the outcome?
 - Trade association or lobby group.
 - Direct ties to public officials.
 - Contacts with the executive.
 - Contacts with the relevant ministry.
 - Contacts with the legislature.*Response Options:* No, Yes, Do not know, Not applicable.
- *Question iii:* If firms in your line of business have attempted to affect the content of a new law, rule, regulation, or decree, have these efforts been successful?
 Response Options: Highly successful, Somewhat successful, Not very successful, Not at all successful, Not applicable.
- *Question iv:* If firms in your line of business attempt to affect the content of a new law, rule, regulation, or decree,

how common is it for public officials to ask for irregular payments or gifts?

Response Options: Always, Nearly always, Frequently, Sometimes, Seldom, Never, Do not know, Not applicable.

- *Question v:* How often is the following statement true? 'If a government official acts against the rules, firms in my line of business can usually go to another official or to his superior and get the correct treatment without recourse to unofficial payments'.
- Response Options:* Always, Nearly always, Frequently, Sometimes, Seldom, Never, Do not know.

Indicator 2. Embezzlement

- *Data Collection Method:* Survey of (at least mid-ranking) public officials.
- *Question i:* I would like to ask you a question about the public funds allocated to government offices like yours, over the past year. Is the allocation of public funds made according to:
 - the discretion of public officials?
 - transparent procedures?
 - clear rules?*Response Options:* No, Yes, Do not know.
- *Question ii:* I would like to ask you a question about the public funds allocated to government offices like yours, over the past year. Imagine that the total funds allocated to an office was 100 dollars. Of this total of 100 dollars, how many dollars would you say were taken or used by any government official or officials for their personal gain or for the benefit of family members or personal friends?
 Response Options: 0–100.

Indicator 3. Favoritism in Hiring

- *Data Collection Method:* Survey of (at least mid-ranking) public officials.
- *Question i:* I would like to ask you a

question about hiring decisions made in government offices like yours, over the past year. Are hiring decisions made according to:

- merit criteria and/or experience?
- clear rules?
- examination results?

Response Options: No, Yes, Do not know.

- *Question ii:* I would like to ask you a question about hiring decisions made in government offices like yours, over the past year. Imagine that the total number of new hires was 100. Of this total of 100 hires, how many would you say were hired because:

- they were family members or personal friends of the government official or officials making the hiring decision?
- they made a payment to the government official or officials making the hiring decision?

Response Options: 0–100.

Indicator 4. Low-level Bribes

- *Data Collection Method:* Survey of the general public.
- *Question:* Thinking about your personal experience, during the past year, have you:
 - been stopped by a police officer for a trumped-up infraction of the law?
 - been asked to pay a bribe to a police officer?
 - observed a bribe being paid to a police officer?
 - observed a bribe being paid to a public official?
 - been asked to pay a bribe to a public official?
 - been asked to pay an illegal fee to expedite a transaction at the local government?
 - been asked to pay a bribe in the court system?

- been asked to pay a bribe for services in the public health/hospital system?
- been asked to pay a bribe for services in the public education system?

Response Options: No, Yes, Do not know.

As Figure 1 indicates, we propose to aggregate these four indicators by giving equal weight to the impact of corruption on the policy-making process, the availability of public resources and the public's access to public resources. Likewise, the two indicators that are used to measure access to public resources are assigned an equal weight. The value of the index will range from 0.00, an indication of a high level of corruption, and 1.00, an indication of a low level of corruption. A ranking of countries will be offered using the value of the index and an estimate of measurement error.

5.3 Indicators of Individual Responsibility

We also propose a measure of individual responsibility regarding corruption that encompasses public officials, business executives, and the general public. Corruption, as argued, is first and foremost the perversion of the ideal whereby individuals, when acting in their capacity as public officials (whether elected and not), should put their duty toward the public ahead of their private interests. Indeed, the concept is fundamentally an ethical standard of behaviour that society uses to evaluate those who hold a unique power, the power to make or implement decisions that are legally binding on society as a whole. But, even corruption thus understood does not involve, in many instances, only public officials.²³ Thus, it is important to acknowledge that just as public officials have a duty not to engage in corrupt behaviour, those who are not public officials also have the responsibility not to corrupt public officials.

To address the responsibility of all relevant actors – public officials, business people and the general public – we propose indicators that measure the range of acts that are classified as corrupt, the tolerance of corruption, and the level of knowledge about anti-corruption laws and programmes. To collect data on these indicators, we propose using the same three types of surveys used to construct the index of corruption, that is, surveys of domestic and international business executives, of (at least mid-ranking) public officials, and the general public. In turn, the questions to be asked are the following:

Indicator 1. Definition of Corruption

- *Data Collection Method:* Survey of domestic and international business executives, (at least mid-ranking) public officials, and the general public.
- *Question:* Which of the following acts do you consider to be examples of corruption?
 - A public official asks for a bribe.
 - A public official is offered and takes a bribe.
 - A public official is offered and takes a small bribe.
 - A public official is offered and takes a large bribe.
 - A businessperson is offered and takes a bribe from another businessperson.
 - A legislator votes on a bill that affects a business owned or run by a family member or relative.
 - A public official uses public funds to take a vacation.
 - A public official directly hires a family member or relative.
 - A public official directly hires a family member or relative who is not the most qualified candidate.
 - A public official directly hires a family

member or relative who is the most qualified candidate.

- A public official directly hires a supporter of his political party.
- A public official asks a colleague in another government office to hire a family member or relative.
- A public official is offered and takes a gift after conducting a safety inspection for a business.
- A doctor in a public hospital refuses to attend a patient unless she makes a payment that is not required by law.

Response Options: No, Yes, Do not know.

Indicator 2. Tolerance of Corruption

- *Data Collection Method:* Survey of domestic and international business executives, (at least mid-ranking) public officials, and the general public.
 - *Question i:* I would like to ask you about a hypothetical situation in which a government employee is caught taking a bribe. What is the appropriate response?
 - No action should be taken against the government employee.
 - The government employee should receive a warning.
 - The government employee should be dismissed.
 - The government employee should be dismissed and legal action should be taken.
- Response Options:* Select only one of the four options.
- *Question ii:* I would like to ask you again about a hypothetical situation in which a government employee is caught taking a bribe. Should the response depend on any of the following circumstances?
 - The government employee earns a low salary and needs the money for a daughter's operation.

- The government employee is an efficient employee.
- The size of the bribe was small.
- The person who paid the bribe was wealthy.

Response Options: No, Yes.

Indicator 3. Knowledge about Anti-corruption Laws and Programmes

- *Data Collection Method:* Survey of (at least mid-ranking) public officials.
- *Question i:* How would you rate your own level of knowledge regarding [insert country name] anti-corruption legislation and programmes?

Response Options: Very low, Low, About average, High, Very high.

- *Question ii:* Have you had any training in your government office regarding [insert country name] anti-corruption legislation and programmes?

Response Options: No, Yes.

These measures provide a useful supplement to the index of corruption. In particular, they serve as a tool for each society to learn about itself and the extent to which they all are co-responsible regarding problems of corruption, and to design programmes to educate people about corruption and its elimination.

5.4 Options and Considerations

To generate measures for the proposed index and indicators in countries in Asia and the Pacific, there are two main options: using existing data on the various indicators or collecting new data. In considering these options, the following points regarding the availability of data, and the quality of the available data should be considered.

Concerning the availability of data, there are many sources that cover multiple countries (see Table 7).²⁴ But there are

important limitations regarding access to these data. With only a few exceptions, the survey data that are available only offer country-level totals. And the data from the sources that cover most countries are not publicly available, because they are either prepared by commercial risk assessment businesses (the Economist Intelligence Unit's Country Risk Service, Global Insight's Global Risk Services, Merchant International Group's Gray Area Dynamics, Political Risk Services' International Country Risk Guide) or by other organisations that rely on these commercial data sets (Transparency International's Corruption Perceptions Index). An important exception concerns the World Bank's Control of Corruption Index, which has recently (as of September 2006) taken steps to make its underlying data, even when it comes from commercial sources, available.

The indicators included in these data sets are, likewise, somewhat limited. Data on some of the indicators needed to construct a new index of corruption are not available. And the quality of the available data is generally poor. Much of the data rely on perceptions or vague questions about 'corruption'. The use of double-barreled questions, a practice widely criticised by survey researchers, is also common. Thus, in many cases, it is unclear whether respondents are providing information about corruption *per se* or about relational concerns, such as the effect of corruption on a firm or the economy or the performance of the government. And some surveys use questions that simply prevent any comparative analysis of levels of corruption across countries. These shortcomings greatly diminish their potential use in a new and methodologically rigorous index and should be balanced against the cost of designing and administering new surveys.

TABLE 7: Corruption Measures on Asia and the Pacific

Producer	Name	Scope (Countries and Years)	Questions	Regularity of production	Public Availability		Data-Collection Methods
					Index	Indicators	
Asian Barometre (www.asianbarometer.org)	Asian Barometre Survey (ABS)	Bangladesh (2005), Cambodia (2006), China (2002, 2006), India (2005), Indonesia (2006), Mongolia (2002, 2006), Nepal (2005), Pakistan (2005), Philippines (2002, 2005), Republic of Korea (2001, 2006), Sri Lanka (2005), Thailand, (2001, 2006), Viet Nam (2006)	Comparing the present system of government with the one our country had under xxx, corruption in politics and government is under control.	..	NA	China (2002), Mongolia (2002), Philippines (2002), Republic of Korea (2001), Thailand (2001)	Surveys, of the general public
Asian Development Bank (ADB) (www.adb.org/ADF/PBA/annualreport.asp)	Country Performance Assessments (CPAs)	Bangladesh, Bhutan, Cambodia, Indonesia, Lao People's Democratic Republic, Maldives, Mongolia, Nepal, Pakistan, Sri Lanka, Viet Nam; P (exc. Fiji, Nauru, Niue, Palau, Tokelau) (2005)	Transparency, accountability, and corruption in the public sector: the extent to which the executive can be held accountable for its use of funds and the results of its actions by the electorate and by the legislature and judiciary, and the extent to which public employees within the executive are required to account for the use of resources, administrative decisions, and results obtained.	Yearly	NA	√	Expert rating, using same questionnaire as the World Bank's Country Policy and Institutional Assessment (CPIA)
Business Environment Risk Intelligence (BERI) (www.beri.com)	Business Risk Service (BRS)	China, India, Indonesia, Islamic Republic of Iran, Malaysia, Pakistan, Philippines, Republic of Korea, Thailand, Viet Nam (1980–2006)	Mentality, including xenophobia, nepotism, corruption, willingness to compromise.	3 times a year	NA	x (commercial)	Expert rating

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Producer	Name	Scope (Countries and Years)	Questions	Regularity of production	Public Availability		Data-Collection Methods
					Index	Indicators	
Economist Intelligence Unit (EIU) (www.eiu.com)	Country Risk Service	Bangladesh, China, India, Indonesia, Islamic Republic of Iran, Malaysia, Myanmar, Pakistan, Papua New Guinea, Philippines, Sri Lanka, Republic of Korea, Thailand, Viet Nam (1997–2006)	Pervasiveness of corruption among public officials.	Monthly	NA	x (commercial)	Expert rating
Gallup International (www.gallup-international.com)	Gallup International Citizens Surveys	India, Indonesia, Malaysia, Pakistan, Philippines, Republic of Korea, Thailand, Viet Nam (2002–2006)	What do you think is the most important problem facing the world today? (Corruption as one of many options)	Yearly	NA	x (commercial)	Surveys, of the general public
Global Insight (www.globalinsight.com)	Global Risk Services	NEA (exc. DPR of Korea), SEA, SA, P (exc. Cook Islands, Marshall Islands, Nauru, Niue, Palau, Tokelau) (1970–2006)	Losses and Costs of Corruption	Continuous update	NA	x (commercial)	Expert rating
ICVS International Working Group (www.unicri.it/wwd/analysis/icvs/data.php)	International Crime Victim Survey (ICVS)	Cambodia (2005), China (1992), India (1992), Indonesia (1992, 1996), Mongolia (1996, 2000), Philippines (1996, 2000), Republic of Korea (2000).	In some countries, there is a problem of corruption among government or public officials. Has any government official, for instance a customs officer, a police officer or inspector in your country asked you, or expected you to pay a bribe for his or her services?	Every 4 years	NA	√	Surveys, of the general public
Institute for Management Development (IMD) (www.imd.ch/research/publications/wcy)	Executive Opinion Survey	China, India, Indonesia, Malaysia, Philippines, Republic of Korea, Thailand (1987–2005)	Bribing and corruption exist in the economy	Yearly	NA	Only country totals	Survey, of business leaders

Producer	Name	Scope (Countries and Years)	Questions	Regularity of production	Public Availability		Data-Collection Methods
					Index	Indicators	
Merchant International Group (MIG) (www.merchantinternational.com)	Gray Area Dynamics	NEA (exc. DPR of Korea), SEA (exc. Timor-Leste), SA (exc. Afghanistan, Maldives) (1994–2006)	Level of corruption, ranging from bribery of government ministers to inducements payable to the 'humblest clerk.'	Quarterly	√	x (commercial)	Expert rating
Political & Economic Risk Consultancy (www.asiarisk.com)	Corruption in Asia Report	China, Indonesia, Malaysia, Philippines, Singapore, Republic of Korea, Thailand (2005)	To what extent does corruption exist in a way that detracts from the business environment for foreign companies?	Yearly	√	x (commercial)	Expert rating
Political Risk Services (www.prisonline.com)	International Country Risk Guide (ICRG)	SEA (exc. Cambodia, Lao PDR, Timor-Leste), SA (exc. Afghanistan, Bhutan, Maldives, Nepal), China, Papua New Guinea, Republic of Korea (1984–2006)	Measures corruption within the political system, which distorts the economic and financial environment, reduces the efficiency of government and business by enabling people to assume positions of power through patronage rather than ability, and introduces an inherently instability in the political system.	Monthly	√	x (commercial)	Expert rating
Transparency International (www.transparency.org)	Corruption Perceptions Index (CPI)	NEA (exc. DPR of Korea), SEA (exc. Timor-Leste), SA (exc. Bhutan, Maldives), P (only Fiji & Papua New Guinea) (2005)	On severity of corruption within the state; the misuse of public office for private (or political party) gain; the extent of corruption as practised in governments; the implementation of anti-corruption initiatives; the	Yearly	√	Only country totals	Survey, of business leaders, and expert ratings

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Producer	Name	Scope (Countries and Years)	Questions	Regularity of production	Public Availability		Data-Collection Methods
					Index	Indicators	
Transparency International (Transparency International 2002a)	Corruption in South Asia Survey	Bangladesh, India, Nepal, Pakistan, Sri Lanka (2002)	frequency and costs of bribes; bribery and corruption in the economy; corruption payable to the 'humblest clerk.' Sector perceived to be the most corrupt (education, health, power, police, land administration, tax, judiciary), nature of corrupt transactions, amount of bribe, reasons for corruption.	One time	NA	Only country totals	Surveys, of the general public
Transparency International (www.transparency.org)	Global Corruption Barometer (GCB)	Afghanistan (2004), Cambodia (2005), India (2003, 2004, 2005), Indonesia (2003, 2004, 2005), Malaysia (2003, 2004, 2005), Pakistan (2003, 2004, 2005), Philippines (2004, 2005), Republic of Korea (2003, 2004, 2005), Thailand (2005).	To what extent do you perceive the following sectors (parties, legislature, police, judiciary, etc.) in this country/territory to be affected by corruption? Some people believe that corruption affects different spheres of life in this country. In your view does corruption affect: Political life, business environment, personal and family life? How have corruption levels increased or decreased over the past three years? Do you expect the level of	Yearly	NA	Only country totals	Surveys, of the general public

Producer	Name	Scope (Countries and Years)	Questions	Regularity of production	Public Availability		Data-Collection Methods
					Index	Indicators	
World Economic Forum (WEF) (www.weforum.org)	Corruption index	Bangladesh, Cambodia, China, India, Indonesia, Malaysia, Pakistan, Philippines, Republic of Korea, Sri Lanka, Thailand, Timor-Leste, Viet Nam (1996-2006)	<p>corruption in the next 3 years to change? In the past 12 months, have you or anyone living in your household paid a bribe in any form?</p> <p>How commonly are bribes paid in connection with import and export permits?</p> <p>How commonly are bribes paid when getting connected with public utilities? How commonly are bribes paid in connection with annual tax payments?</p>	Yearly	√	x	Survey, of business leaders
World Bank (web.worldbank.org)	Control of Corruption Index (CCI)	NEA, SEA, SA, P (exc. Tokelau) (1996-2005)	<p>On corruption within the state; nepotism, cronyism and patronage in the civil service; costs of corruption; public trust in financial honesty of politicians; diversion of public funds due to corruption; frequency of extra payments made by firms; anti-corruption policies; number of corrupt parliamentarians, judges, and government officials</p>	Yearly	√		<p>Survey, of business leaders and the general public, and expert ratings by country-year basis</p>

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Producer	Name	Scope (Countries and Years)	Questions	Regularity of production	Public Availability		Data-Collection Methods
					Index	Indicators	
World Bank (web.worldbank.org)	Country Policy and Institutional Assessment (CPIA)	Mongolia; Cambodia, Indonesia, Lao PDR, Viet Nam; SA (exc. Afghanistan, Iran); Kiribati, Papua New Guinea, Samoa, Solomon Islands, Tonga (2005)	Transparency, accountability, and corruption in the public sector: the extent to which the executive can be held accountable for its use of funds and the results of its actions by the electorate and by the legislature and judiciary' and the extent to which public employees within the executive are required to account for the use of resources, administrative decisions, and results obtained.	Yearly	NA	√	Expert rating
World Bank (www.enterprisesurveys.org)	Enterprise Surveys	Bangladesh (2002), Cambodia (2003), China (2003), Indonesia (2003), Philippines (2003), Sri Lanka (2004), Viet Nam (2005)	Unofficial payments for typical firm to get things done (% of sales). Firms expected to give gifts in meetings with tax inspectors (%). Value of gift expected to secure government contract (% of contract)	...	NA	√	Survey, of business leader

Notes: NA = not applicable. ... = not available. Abbreviations: NEA = North-East Asia, SEA = South-East Asia, SA = South Asia, P = Pacific. North-East Asia. China, Democratic People's Republic of Korea, Mongolia, Republic of Korea. South-East Asia. Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Timor-Leste, Thailand, Viet Nam. South Asia. Afghanistan, Bangladesh, Bhutan, India, Iran, Maldives, Nepal, Pakistan, Sri Lanka. Pacific. Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu, Vanuatu.

6. CONCLUSION

Much work has been done in recent years to measure corruption and much has been learned about how to measure corruption. Yet, as the assessment offered in this paper suggests, existing methodologies and measures still have significant weaknesses. This sort of critical assessment of methodologies and measures of corruption has produced two responses. Some have used such criticisms to bolster the argument that corruption cannot be measured at all. Others, in contrast, have been dismissive of the seriousness of the methodological problems. This paper has taken a different path. It has focused on the weaknesses of measures of corruption and, drawing lessons from the valuable attempts at measurement, it has sought to show that it is possible to overcome many of these shortcomings and produce better measures of corruption.

Improving the quality of data on corruption is crucial. Having good data on corruption is fundamental both to the analysis of corruption, and the design and assessment of anti-corruption programmes. Indeed, the use of poor data could lead to a misrepresentation of the prevalence of corruption, and dubious findings regarding the causes and consequences of corruption. And poor data is likely to provide a weak basis for orienting and evaluating collective efforts to eliminate corruption. Thus, the stakes of the work that remains to be done to measure corruption adequately are clear.

ENDNOTES

1. For reviews of this literature, see Bardhan (1997), Bowles (2000), Jain (2001), Rose-Ackerman (2004), and Seldadyo and de Haan (2006).
2. See, for example, Tanzi (1998).
3. For a discussion of definitions of corruption and these ways of framing standards, see Peters and Welch (1978), Johnston (1996; 2001), Heywood (1997), Lancaster and Montinola (1997), Mény and de Sousa (2001), Heidenheimer and Johnston (2002), Gardner (2002), Philip (2002; 2006), Kurer (2005), and Brown (2006).
4. For critiques of current definitions of corruption, see Scott (1972), Peters and Welch (1978), Johnston (1996; 2001), Heywood (1997), Lancaster and Montinola (1997), Gardner (2002), Philip (2002), Kurer (2005), and Brown (2006).
5. See also (UNODC 2004; 2000).
6. Though broader definitions are attractive, in that they raise standards for society as a whole, they have some weaknesses. First, definitions that include those who are entrusted with public roles are harder to operationalise. Holding public office is an easily determined legal criterion. But, how are we to determine which private actors have been entrusted with a public role? Second, definitions that include those who possess economic power involve some slippage. A businessperson who bribes a public official who has some say in the allocation of government contracts is a corrupting agent and his or her behaviour is of utmost relevance to an anti-corruption programme. But, is this person *corrupt* or, rather, a *corrupter*?
7. The Inter-American Convention Against Corruption entered into force in March 1997, the Asian Development Bank (ADB)/ Organisation for Economic Co-operation and Development (OECD) Anti-Corruption Action Plan for Asia and the Pacific was endorsed (as of September 2006) by 27 countries, and the United Nations Convention against Corruption entered into force in December 2005. A precedent for this UN convention was the United Nations Convention against Transnational Organised Crime, which was adopted by the General Assembly in 2000 and entered into force in September 2003.

8. For the relevant sections of the texts, see OAS (1996), United Nations General Assembly (2001) and ADB (2004). The core disagreement in the negotiation of the United Nations Convention against Corruption revolved around the option between narrower or broader definitions (United Nations General Assembly 2001). Though these documents put holders of public office at the forefront, they rightly discuss the private sector as part of an integral anti-corruption strategy. A special case, which focuses exclusively on the private sector and international transactions, is the OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions (a.k.a. OECD Anti-bribery Convention), which was drafted in 1997 and came into effect in February 1999.
9. A sign of maturity of the literature on measurement is that several authors have provided state-of-the-art methodological evaluations of multiple measures of corruption that address these questions. See, especially, Jones et al. (2006), and Knack (2006).
10. For critiques of perception-based measures, and empirical confirmation of the divergence between perceived and experienced corruption, see Van de Walle (2005), Weber (2005), Miller (2006b), Olken (2006), and Seligson (2006).
11. See also Svensson (2003)
12. See also Seligson (2006), and Miller (2006a; 2006b). For a discussion of the distinct uses of surveys of firms and of households, as well as expert ratings, see Knack (2006).
13. In contrast, a glaring and persistent gap is the lack of methodologies that could be used to produce good data on corruption in the past. Inasmuch as historical studies of corruption employ quantitative data, they use indicators such as the number of convictions of public officials on corruption charges (Schlesinger and Meier 2002; Glaeser and Saks 2004), which is arguably not even an indicator of corruption, and the frequency of newspaper coverage of corruption (Pharr 2000; Glaeser and Goldin 2004), a notoriously dubious indicator of corruption. The problem is that the frequency of newspaper stories on corruption is also a reflection of varying levels of press freedom, the role of investigative journalists, and the sensationalism of scandals.
14. For example, though the number of convictions of public officials on corruption charges is sometimes interpreted as a measure of the level of corruption (Schlesinger and Meier 2002; Glaeser and Saks 2004), as suggested above, it is not really an indicator of corruption. Indeed, it is better seen as an indicator of the political will to fight corruption, the workings of the judiciary, and the ability of public officials to detect and punish other public officials who act corruptly, that is, as an indicator of anti-corruption mechanisms and actions.
15. Some indices are not included in this assessment because the available information is not sufficient to reconstruct their methodology. And some measures that are labelled as indices, such as Transparency International's Bribe Payers Index (BPI), are not included because they do not aggregate multiple indicators and are rather a summary of responses to a single question.
16. A large part of the discussion about the measurement of corruption has focused on TI's CPI and the World Bank's CCI, and it has tended to be quite critical. For assessments of CPI, see Johnston (2002), Galtung (2006), and Søreide (2006). On the CPI and CCI, see Andvig (2005), and Knack (2006). For a defence of the CPI and CCI, see Lambsdorff (2006b) and Kaufmann et al. (2006b), respectively.
17. For direct evidence of contamination between the CPI and one of the CPI's sources, the Economist Intelligence Unit, see Galtung (2006).
18. For a classical statement of the challenge of establishing equivalence in measures across systems, see Przeworski and Teune (1970).
19. For example, some of the questions used in the CCI ask about red tape and anti-

- corruption policies (Kaufmann et al. 2006a).
20. For example, questions used in the CCI include 'To what extent do patterns of nepotism, cronyism and patronage undermine the state's ability to exercise the basic functions of government effectively?'; 'To what extent do patterns of nepotism, cronyism and patronage distort broad patterns of economic development?'; and 'How problematic is corruption for the growth of your business?' (Kaufmann et al. 2006a).
 21. Of course, the lack of independence also affects the estimate of measurement error.
 22. A synthesis of guidelines would include the following points: (i) measures should aim to encompass the varied manifestations of corruption; (ii) different methods are required to measure different manifestations of corruption; comprehensive measures of corruption call for multiple methods; (iii) measurement should rely on experiences and/or observables, and not on perceptions; (iv) disaggregate measures are desirable, in that they offer useful information about distinct acts and the actors involved; and (v) aggregate measures should be based on strong conceptual and methodological foundations.
 23. Corruption can be entirely a matter involving actors within the state, as when public funds are misappropriated by public officials or when a cabinet minister bribes a member of parliament in return for a vote on a bill. Yet it also can involve interactions with private citizens.
 24. In addition to these sources, there are several single-country surveys. See the list in Transparency International (2005).

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