

## **HOW DO WORLDWIDE GOVERNANCE INDICATORS MEASURE UP?**

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*ABSTRACT.* This paper conceptualizes governance and provides a framework for assessing governance quality in comparative perspective based upon governance outcomes. It surveys the composite indexes on quality of governance and provides an in depth review of the widely used Worldwide Governance Indicators (WGIs). This review concludes that WGIs use state of the art aggregation techniques but fail on most fundamental considerations. They lack a conceptual framework of governance and use flawed and biased primary indicators that mostly capture Western business perspectives on governance processes using one-size-fits-all norms about such processes. They almost completely neglect citizens' evaluations of governance outcomes reflecting any impacts on the quality of life. These primary deficiencies and changing weights, respondents and criteria lead us to conclude that the use of such indicators in cross-country and time series comparisons could not be justified. Such use is already complicating the development policy dialogue and creating much controversy and acrimony. These findings, however, should not be a cause for despair as assessing governance quality is an important task and must be undertaken with care. To this end, this paper lays out a conceptual framework which stresses that governance quality for comparative purposes is most usefully assessed by focusing on key governance outcomes capturing the impact of governments on the quality of life enjoyed by its citizens. These assessments should preferably be based on citizens' evaluations. Such evaluations are not only feasible but also would be more credible and conducive for meaningful and productive development policy dialogues on improving governance quality.

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# HOW DO WORLDWIDE GOVERNANCE INDICATORS MEASURE UP?

Kazi Iqbal and Anwar Shah

*“Governments are very keen on amassing statistics. They collect them, add them, raise them to the nth power, take the cube root and prepare wonderful diagrams. But you must never forget that everyone of these figures comes in the first instance from the village watchman, who just puts down what he damn well pleases.”*

-Rudyard Kipling

*“Composite indicators are confusing entities whereby apples and pears are added up in the absence of a formal model or justification.”*

-- European Commission, Joint Research Center

## 1. INTRODUCTION

During the past several years, worldwide governance indicators have moved from articles of academic curiosity to tools for conducting development dialogue, allocating external assistance and influencing foreign direct investment. Each new series are now released with great fanfare from major industrial country capitals and the popular press uses these indicators to name and shame individual countries for any adverse change in rank order over time or across countries. The development assistance community is increasingly using these indicators in making critical judgments on development assistance. At the same time some of the recent findings of these indicators have also led to much controversy and acrimony and thereby contributing to complicating the dialogue on development effectiveness. (see Box 1). In view of the influential nature of these indicators and potential to do harm if judgments embodied in these indicators are biased and erroneous, it is imperative that they capture critical dimensions of the quality of governance and all countries are evaluated using uniform and reasonably objective assessment criteria. Do the existing indicators meet this test? Regrettably with the

exception of a handful of authors (Thomas, 2006, Arndt and Oman, 2006, Kurtz and Schrank, 2007, Kazi and Shah, 2006, Thompson and Shah, 2005), the academic and policy literature while a big user of these indicators, have not subjected these indicators to the scrutiny they deserve in view of their importance.

**Box 1. Just A Few Examples of the Controversial Findings of the Worldwide Governance Indicators**

1. Botswana is politically more stable than either Norway and Sweden.
2. India is politically less stable than either Rwanda or Sierra Leone.
3. Voice and accountability in China is worse than Zimbabwe.
4. Military coup de'tat in October 1999 led to improved voice and accountability in Pakistan.
5. Percentile ranking of China on political stability, voice and accountability and rule of law remains low and at the same level in 2006 as was in 1996. Government effectiveness and regulatory quality is lower in 2006 as compared to 1996.
6. Rule of Law in Brazil and India deteriorated over the period 1996-2006.
7. Bangladesh's scores on all aspects of governance deteriorated in the last decade.

Source: Conclusions based upon governance scores as reported in Kaufman et al (2007a) . Note: Kaufman et al point out that some of the above differences in scores may be statistically insignificant when measure errors are taken into consideration but this reinforces our conclusions that these indicators may do more harm than good and could complicate collaborative dialogue on development policy and governance reforms.

Arndt and Oman (2006) aptly identified the causes behind the recent upsurge in the use of perception based governance indicators by multiple groups. This work pointed out the problems of correlated errors, sample bias and lack of transparency and questioned the comparability of governance indicators over time and across country. Kurtz and Schrank

(2007) also criticized WGIs because of their perceptual bias, lack of conceptual framework and sample selection bias. Thomas (2006) looked into the question “whether they measure what they purport to measure” and argued that WGIs lack proper understanding of ‘construct validity’<sup>1</sup>.

The literature cited above, however, failed to provide a conceptual framework for evaluating aggregate governance indicators. This paper takes a first step in this direction. The paper presents a conceptual framework on measuring governance quality and uses this framework to examine existing aggregate governance indicators. In doing so, the paper delves deeper into the actual computation of these indexes and provides empirical basis for sample bias and non-comparability issues plaguing these indicators. The paper argues that governance quality comparisons for aggregate indicators are better done based on governance outcomes as the comparability of governance institutions requires deeper analytical work in view of their contextual nature

More specifically, this paper seeks answers to the following questions:

- (1) What is the underlying governance framework and if such a framework is specified, does it capture critical aspects of quality of governance relevant for cross-country comparisons?
- (2) Do the governance assessments of individual countries capture citizens’ perspectives on governance outcomes in their countries or do they simply represent foreign investors’ or interest groups’ perceptions?
- (3) Do governance assessments use only the indicators that follow accepted norms of survey methodology?
- (4) Are these assessments based on reasonably objective criteria?
- (5) Are the results at least roughly comparable over the years and across countries?
- (6) Do the indicators as currently constructed have the potential to advance constructive development policy dialogue on reforming public governance and combating corruption?

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<sup>1</sup> Kaufmann et al (2007) documents their responses to these critiques but fail to address the most fundamental critique of a lack of conceptual clarity in measuring what they purport to measure and lack of validity in cross-country and time series comparisons .

Answers to above questions have critical relevance to current development policy debates.

The rest of the paper is organized as follows. Section 2 introduces the main available composite governance indicators. Section 3 discusses conceptual issues in measuring governance, specifies a framework on measuring governance quality and discusses the theoretical underpinnings of available indicators. Section 4 reviews empirical issues and highlights the shortcomings of the available indicators. Section 5 discusses the implications of the false judgments embodied in the available indicators and suggests a way forward to overcome their limitations. The final section summarizes overall conclusions of this review.

## **2. A BRIEF DESCRIPTION OF COMPOSITE WORLDWIDE GOVERNANCE MEASURES**

Composite governance indicators owe their origin to the work of Huther and Shah (1996, 1998) who developed “a simple index of good governance”. This index was focused on measuring governance outcomes. This work was followed by Kaufman, Kraay and Zoido-Lobaton (1999) whose primary focus was on governance processes and clustering of a large number of available data series and aggregating these using state of the art econometric aggregation techniques. The following paragraphs highlight the main features of these two alternate approaches.

### **A Simple Index of Good Governance**

Huther and Shah (1996, 1998) argued that a quantifiable definition of good governance could inform debates on development policy and could serve as a “starting point for objective assessment of various economic policies to further the quality of governance rather than a precise and definite indicator of governance quality” (p.1). They defined governance as “all aspects of the exercise of authority through formal and informal institutions in the management of the resource endowment of a state. The quality of governance is thus determined by the impact of this exercise of power on the quality of

life enjoyed by its citizens”. To capture this impact, they focused on four key observable aspects of governance: citizen voice and exit; government orientation; social development and economic management (see Table 1).

**Table 1: A Composite Index of Good Governance**

<i>Sub-index Name</i>	<i>Component</i>
Citizen Participation (voice and exit)	Political Freedom
	Political Stability
Government Orientation	Judicial Efficiency
	Bureaucratic Efficiency
	Lack of Corruption
Social Development	Human Development
	Egalitarian Income Distribution
Economic Management	Outward Orientation
	Central Bank Independence
	Inverted Debt to GDP Ratio

Source: Huther and Shah (1996, 1998)

Huther and Shah ranked 80 countries using these indices. They however, cautioned that such indices should not be used for cross-country and time-series comparisons and are only helpful in addressing broader policy questions in aggregate and examining correlation with macro variables. They argued that such comparisons could be very misleading in the absence of clearly specified governance outcome framework and having primary indicators that are consistent with the framework. Shah and his World Bank Operations Evaluation Department colleagues undertook to develop such a framework and having a uniform set of survey questions to assess citizens’ evaluations of those outcomes in various countries but such work could not be completed due to some intervening factors.

Subsequently, Kaufman and his associates did not take on board these fundamental concerns and instead focused on amassing large number of statistics and refining aggregation techniques. Their work is described in the following paragraphs.

### **Worldwide Governance Indicators**

Worldwide Governance Indicators (WGIs) are now the most widely used and quoted indicators by the all relevant quarters—academicians, policy makers, donor countries and agencies, and investors. These indicators were first developed in 1999 by Daniel Kaufmann, Aart Kraay and Zoido-Lobaton (Kaufmann et al, 1999). Later Zoido-Lobaton was replaced by Massimo Mastruzzi. Since then they kept on expanding and also retrospectively adding past years. Now WGIs are available for 1996, 1998, 2000 and 2002-2006. 2006 WGIs published in 2007 also retrospectively made revisions of previous years' indicators.

WGIs aggregate available governance indicators into six clusters as follows (see Table A3 for details).

1. *Voice and accountability (VA)*: This cluster includes a host of primary indicators such as orderly transfers, vested interests, accountability of officials, human rights, freedom of speech, institutional stability, link between donations and policy etc
2. *Political stability and absence of violence (PV)*: This cluster includes indicators on military coup risk, insurgency, terrorism, political assassinations etc.
3. *Government effectiveness (GE)*: This cluster aggregates available indicators on personnel turnover, government capacity, global e-government, institutional failures, time spent by senior officials dealing with government officials, etc.
4. *Regulatory quality (RQ)*: Diverse indicators on trends in exports, imports volumes attributable to change in government regulation, regulatory burdens on business, restrictions on foreign ownership and distortions in tax system etc.
5. *Rule of law (RL)*: Primary indicators include losses and costs of crimes, kidnapping of foreigners, contract enforceability, incidence of crimes etc.
6. *Control of corruption (CC)*: This cluster draws upon primary indicators such as losses and costs of corruption, public trust, incidence of bribes, political influence, instability of the political system and number of officials involved in corruption.

The construction of any category of the composite indicator involves following few steps:

- i. Relevant questions of a source are equally weighted to get a single number for each source for a country.
- ii. ‘Representative’ sources are identified where country coverage is large. These representative sources are aggregated using unobserved component model to get a preliminary composite indicator.
- iii. ‘Non representative’ sources are regressed on composite indicator calculated for ‘representative’ sources to get the estimates of marginal effects and error variances.
- iv. Weights for all sources are calculated in such a way that they are inversely proportional to the error variances. Using these weights all sources are aggregated to get the final composite indicator.

WGIS use Unobserved Component Model which expresses the observed data as a liner function of the observed common component of governance and a disturbance term capturing perception errors or sampling variation in each indicator. The observed score of country  $j$  on indicator  $k$ ,  $y(j,k)$ , is assumed to be a linear function of unobserved governance,  $g(j)$ , and a disturbance term,  $\varepsilon(j,k)$ .

$$y(j,k) = \alpha(k) + \beta(k)[g(j) + \varepsilon(j,k)]$$

where  $\alpha(k)$  and  $\beta(k)$  are unknown parameters. The error term is assumed to follow a normal distribution with zero mean and same variance across counties but difference variance across indicators. The estimate of the governance of a country is the conditional mean of governance given the observed data.

$$E[g(j) | y(j,1), \dots, y(j, K(j))] = \sum_{k=1}^{K(j)} w(k) \left[ \frac{y(j,k) - \alpha(k)}{\beta(k)} \right]$$

Where the weights for each source  $k$ ,  $w(k) = \frac{\sigma_{\varepsilon}(k)^{-2}}{1 + \sum_{k=1}^{K(j)} \sigma_{\varepsilon}(k)^{-2}}$

which varies inversely with the variance of the error term of that source.



### **3. CONCEPTUALIZING GOVERNANCE AND ITS MEASUREMENT**

Governance is a fuzzy yet fashionable buzzword and its use in the literature has exploded in recent years. Dixit (2008) notes that there were only 4 citations in EconLit in the period 1970-1979 compared to 15455 in the most recent period of 2000-2007 and currently Google lists more than 152000 pages of this literature. According to American Heritage, Random House and Merriam Webster dictionaries, governance is equated with government and is defined as the “exercise of authority and control” or a “a method or system of government and management” or “the act, process or power of governing”. Huther and Shah (1996, 1998) defined governance as “a multi-faceted concept encompassing all aspects of the exercise of authority through formal and informal institutions in the management of the resource endowment of a state. The quality of governance is thus determined by the impact of this exercise of power on the quality of life enjoyed by its citizens” (p.2). Kaufmann et al (2003, p. 130) define governance as “the traditions and institutions by which authority in a country is exercised”. The World Bank Governance and Anti-corruption (GAC) Strategy (World Bank, 2007, p. ?) defines it as “the manner in which public officials and institutions acquire and exercise the authority to shape public policy and provide goods and services”.

All the above definitions are useful. However for our current purpose, none of the above definitions with the sole exception by Huther and Shah, is helpful in serving as an operational guide to carry out a comparative review of quality of governance across countries or even of one country over time. This is because of their singular focus on the processes/institutions which do not lend themselves to easy or fair comparability across countries and sometimes not even within one country without conducting deeper analytical studies. There can be little disagreement that same processes and institutions can lead to divergent governance outcomes just as dissimilar processes could yield

similar outcomes in two different countries. For example, anti-corruption agencies in countries with fair governance helps curtain corruption but in countries with poor governance prove either to be ineffective or worse a tool for corrupt practices and victimization (Shah, 2007). As another example, budget secrecy prior to its presentation to the parliament is just as important under parliamentary form of government as in Canada, UK, India, New Zealand, as open and participatory budget determination process is to presidential form of government as in the USA. There can be little disagreement that both types of processes have the potential to advance public interest but may succeed or fail in different country circumstances. During the past two decades, we have also seen that single party dominant political systems in China, Malaysia and Singapore have shown dramatic results in improving governance outcomes whereas pluralistic party systems have also shown positive results in other countries such as Brazil and India. Similarly monarchy has shown positive results in UK but unwelcome results in Nepal. Even similar electoral processes do not always lead to representative democracy and may instead yield aristocracy (elite capture) in some countries and corrupt oligarchies in others. In fact, Aristotle's main argument for elections was based upon the premise that these would produce aristocracy, a form of government he considered superior to median voter rule (see Azfar, 2008). Andrews (2008) argues that such "good governance picture of effective government... constitutes a threat, promoting isomorphism, institutional dualism and 'flailing states' and imposing an inappropriate model of government that "kicks away the ladder" today's effective government climbed to reach their current state."(p.2) In any case, such comparisons of processes and institutions out of their context are almost always ideologically driven and value laden and could not be acceptable as unbiased professional (scientific) judgments. These points are brought home by Box 1 and analysis in section 4. This also explains that while citizens of Bangladesh, China, India and Malaysia over the last decade have experienced remarkable improvement in governance outcomes, available primary indicators fail to capture these accomplishments due to their focus on processes at the neglect of outcomes. These indicators rank China in the lowest percentile on voice and accountability but according to the former Auditor General of Canada, China has the most effective public accounts committee anywhere which has a track record of holding government to account for

malfeasance (Dye, 2007). China has also demonstrated superior government effectiveness through its unique success in alleviating poverty and improving the quality of life of its citizens over the past two decades. In conclusion comparisons of governance institutions requires deeper analytical work through comparative studies rather than aggregate indicators. Of course, governance outcomes also assume commonly shared values but it is relatively less problematic than one-size fit-all prescriptions on processes.

To have meaningful governance comparisons across countries and over time, one needs to have concepts which are somewhat invariant to time and place and are focused on citizens' evaluations rather than interest groups' views. To this end, we define governance as an exercise of authority and control to preserve and protect public interest and enhance the quality of life enjoyed by citizens.

### **Towards A Simple Framework for Assessing Country Governance Quality**

Considering a neo-institutional perspective, various orders of government (agents) are created to serve, preserve, protect and promote public interest based upon the values and expectations of the citizens of a state (principals). Underlying assumption is that there is a widely shared notion of the public interest. In return, governments are given coercive powers to carry out their mandates. A stylized view of this public interest can be characterized by four dimensions of governance outcomes.

*Responsive Governance.* The fundamental task of governing is to promote and pursue collective interest while respecting formal (rule of law) and informal norms. This is done by government creating an enabling environment to do the right things – that is it promotes and delivers services consistent with citizen preferences. Further, the government carries out only the tasks that it is authorized to do that is it follows the compact authorized by citizens at large

*Fair (equitable) Governance.* For peace, order and good government, the government ensures protection of the poor, minorities and disadvantaged members of the society.

*Responsible Governance.* The government does it right i.e. governmental authority is carried out following due process with integrity (absence of corruption), with fiscal prudence, with concern for providing the best value for money and with a view to earning trust of the people.

*Accountable Governance.* Citizens can hold the government to account for all its actions. This requires that the government lets sunshine in on its operations and works to strengthen voice and exit options for principals. It also means that government truly respects the role of countervailing formal and informal institutions of accountability in governance.

Given the focus on governance outcomes, Table 1 presents some preliminary ideas for discussion on how to operationalize these concepts in individual country assessments.

**Table 2: Governance Outcomes and Relevant Considerations**

Governance outcome	Relevant considerations
Responsive governance	<ul style="list-style-type: none"> <li>- Public services consistent with citizen preferences</li> <li>- Direct possibly interactive democracy</li> <li>- Safety of life, liberty and property</li> <li>- Peace, order, rule of law</li> <li>- Freedom of choice and expression</li> <li>- Improvements in economic and social outcomes</li> <li>- Improvements in quantity, quality and access of public services</li> <li>- Improvements in quality of life</li> </ul>
Fair governance	<ul style="list-style-type: none"> <li>- Fulfillment of citizens' values and expectations in relation to social justice, and due process</li> <li>- access of the poor, minorities and disadvantaged groups to basic public services</li> <li>- non-discriminatory laws and enforcement</li> </ul>

	<ul style="list-style-type: none"> <li>- egalitarian income distribution</li> <li>- equal opportunity for all</li> </ul>
Responsible governance	<ul style="list-style-type: none"> <li>- open, transparent and prudent economic, fiscal and financial management</li> <li>- working better and costing less</li> <li>- ensuring integrity of its operations</li> <li>- earning trust</li> <li>- managing risks.</li> <li>- competitive service delivery</li> <li>- focus on results</li> </ul>
Accountable governance	<ul style="list-style-type: none"> <li>- justice-able rights and due process</li> <li>- access to justice, information</li> <li>- judicial integrity and independence</li> <li>- effective legislature and civil society oversight</li> <li>- recall of officials and rollbacks of program possible</li> <li>- effective limits to government intervention</li> <li>- effective restraints to special interest capture</li> </ul>

Source: Authors' perspectives

The above simple framework captures most aspects of governance outcomes especially those relevant for development policy dialogue and can serve as a useful starting point for a consensus framework to be developed. In any event, there can be little disagreement that one cannot embark on measuring governance quality without first defining and defending an appropriate framework that measures governance – a point also emphasized by Thomas (2006) and the European Commission (see Nardo et al 2005). Once a consensus framework is developed then one needs to focus on only a few key indicators that represent citizens' evaluations and could be measurable with some degree of confidence in most countries of the world and could be defended for their transparency and reasonable degree of comparability and objectivity (see Andrews and Shah, 2005 for details and relevant indicators of an approach that emphasizes citizen-centric governance and Shah and Shah, 2006 for citizen-centered local governance and relevant indicators.) .

Having an enormous number of indicators which could not be scrutinized, is not very helpful but a distinct disadvantage for a measure that aims for wider acceptance and confidence.

In the following paragraphs we examine available governance indicators for their conformity to the framework presented above or at least having an alternate conceptual framework that could be considered a reasonable proxy for measuring governance quality.

## **THEORETICAL UNDERPINNINGS OF COMPOSITE WORLDWIDE MEASURES OF GOVERNANCE QUALITY**

The following paragraphs present an evaluation of how do the available composite measures of governance quality stack up against the criteria put forward in section 3.

### **A Simple Index of Good Governance**

Huther and Shah had a simple yet clearly specified conceptual framework focused on key observable aspects of government outcomes that were comparable across countries. Their framework embodied all the above criteria of responsive (citizen participation), fair (social outcomes), responsible (economic management) and accountable governance (government orientation). However their framework was incomplete in some important respects. For example legislative and civil society oversight and restraints on interest group capture and enabling environment for improving economic and social outcomes among others were not fully captured.

### **Worldwide Governance Indicators**

Kaufman et al (1999) appropriately labeled their first paper as “Aggregating governance indicators” and this theme has been consistently followed in their subsequent work (Kaufman et al 2001, 2002, 2006, 2007). They have not provided a conceptual model for their approach and instead their focus has been classification of myriad of indicators, some relevant, others extraneous, into convenient cluster to reflect what in their views

“constitutes a consistent and useful organization of data that is consistent with prevailing notion of governance” (2007, p.130). They write

“we construct six aggregate governance indicators motivated by a broad definition of governance as the traditions and institutions by which authority in a country is exercised. This includes (1) the process by which governments are selected, monitored and replaced, (2) the capacity of the government to effectively formulate and implement sound policies, and (3) the respect of citizens and the state for the institutions that govern economic and social interactions among them.” (2007, p.130)

Examples of extraneous, unmeasurable or highly subjective indicators abound in their primary indicators. For example orderly transfers, link between donations and policy, stateness and institutional stability measures are included in ‘voice and accountability’ cluster. Political stability cluster has some strange unmeasurable measurements such as reduction of 1% GDP growth rate by political assassination, and international tensions. Government effectiveness cluster government instability by the impact of turnover at the senior level resulting in a GDP decline of 2% over 12 months, and decline in personnel quality, and deterioration of government capacity with attendant GDP reductions. Regulatory quality again is being measured by 2% reduction in import and export volumes and whether corporate and personal taxes are distortionary. Do we know of a country where such taxes are not distortionary? The rule of law cluster includes kidnapping of foreigners, illegal donation to parties and if the respondent was a victim of crime. Control of corruption cluster includes inherent instability of the political system, undue political influence, and the absolute actual number of leaders and officials involved in corruption.

The implicit conceptual governance framework used by them is focused on the governance processes. Such a conceptual focus on governance processes means that there is no assurance of achieving governance outcomes consistent with the values and expectations of the citizens of a state and more importantly their use in cross-country comparisons would be fraught with difficulty and may even be misleading as the following sections demonstrate. Kaufman and his associates focused primarily on governance process and econometrics issues in building the indicators. As a result, the initial concerns with the conceptual framework and a grab bag of primary indicators, some relevant others non-relevant, still stand out in WGIs. For example sophisticated

econometrics can help us measure things only when we know what we are measuring. WGI's provide us no assurance of what is being measured. As Thomas (2006) rightly points out “that the “construct validity” of these indicators – whether the indicators measure what they purport to measure”(p.1) has not been demonstrated. Fundamental weaknesses in theoretical framework or in the primary indicators can not be overcome by the use of elegant econometrics.

In the absence of a conceptual framework, WGI's arbitrarily clustered governance into six categories and as a result one category can be the function of another. That is, WGI's do not have clear conceptualization of governance; what are the causes and what are the consequences. It can easily be argued that Control of Corruption is a function of Government Effectiveness; Rule of Law depends on Political Stability and Absence of Violence. Each aspect of governance is also not well defined. For example, in the case of Control of Corruption, no distinction is made between ‘petty corruption’ and ‘grand corruption’. The growth and distributional effect of these two types of corruption can be different.

WGI's Control of Corruption measures different dimensions of corruption. Some primary sources measure petty corruption while others measure grand theft. Some measure the magnitude while others measure the frequency of corruption<sup>2</sup>. Corruption also manifests in different forms. The Gallup International survey refers to the number of corrupt acts. Global Competitive Report and World Bank Private Sector Survey mostly capture the amount of bribe paid. World Bank Private Sector Survey asks about the damage done by corruption.

Some sources have narrow conceptualization of corruption due to ideological bias. For example, the Political Risk Services (PRS) of International Country Risk Guide (ICRG) considers longer duration of a political regime concomitant with corruption. This presumption may well be true in some instances and not in others.

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<sup>2</sup> Thompson and Shah (2005) provide a similar critique of the Transparency International's Corruption Perception Index (CPI).



Adding different aspects, types and manifestations of corruption is tantamount to adding apples with oranges. Thompson and Shah (2005) illuminate this point by an interesting example:

“Suppose that in city A there were 5 murders and 95 shoplifting, whereas in city B, there were 95 murders and 5 incidents of shoplifting. The size of the population is the same for both cities. Then, the total crime rate is the same in the two cities. But no one would venture to say that they are equally safe cities to live in. (p.?)”

Though this is a contrived example, it rings true of the aggregation at the primary level done by the WGIs. Thomas (2006, p.5) elaborated on this issue further and argued that development of measures of abstract concepts should involve following three steps:

Firstly, it requires a mapping between a theory about the construct and a specific definition of the construct that is a description of the thing to be measured.

Secondly, it requires a mapping between the description and a specific operationalization of that idea, a model based on observable variables that is used to derive a measure of the construct.

Finally, it requires predictions about how the construct relates to other observables. These predictions both provide a means to check the correctness of the choices made in operationalization and an explanation of why we would care about the construct at all.

However, WGIs do not follow these steps.

### *Adding Apples with Oranges*

Instead, WGIs aggregate different types of primary sources to construct the composite index. The aggregation of primary sources may cause imprecise and poor conceptualization of governance because of the following three reasons:

1. Poor conceptualization of governance of primary sources
2. Diverse objectives of primary sources
3. Ideological bias of primary sources

2006 WGIs are constructed from 33 data sources produced by 30 different organizations. Therefore, any flaw in the primary indicators is also carried over to this composite indicator. In the following sections, we note that the primary sources of data for WGIs use ambiguous, misleading and flawed questions. Under such circumstance, aggregation of these primary sources would lead to estimates that would imprecise and vague as to what is being measured. We also show that there are ideological biases for a good number of sources. The definition of particular aspect of governance is influenced by the ideology of the institutions who publish these indicators. Sources having differential ideological and objective biases make the aggregation difficult and the final result of dubious value in assessing governance quality. The following section takes a closer look at these issues.

#### **4. THE MEASUREMENT OF GOVERNANCE QUALITY**

This section delves into methodological and empirical questions pertaining to distribution of weights, measurement problems, and sample bias issues. Huther and Shah (1996, 1998) clearly recognized the limitations of their work and acknowledged that “the indices are meant to convey a general placement of countries rankings rather than precise assessments of countries’ relative performance” (p.18). Additionally, they also acknowledged the “potential for errors in individual rankings since many of the indices rely on subjective judgments or limited surveys” (p.18). In spite of these acknowledgements, they at least had a clear focus on governance outcomes, which has been lacking in subsequent work as discussed in the following section.

#### **CRITICAL APPRAISAL OF WGIs**

Apart from non existence of any conceptual framework, the major concern with WGIs is the measurement problems that arise due to problems in primary indicators and distribution of weights. Primary sources are fraught with many ambiguous and irrelevant questions. Composition of respondents of these sources is also flawed, resulting in

ideological and objective bias of the sample. Equal weighting of questions of unequal importance, assumption of constant global mean and standard deviation, dominance of few sources, country specific weights, and unrepresentative sample also places serious doubts on the validity of WGIs. These problems make comparison across country and over time very misleading. In this subsection we will discuss these issues in some detail.

## **PROBLEMS IN MEASUREMENT**

Problems in measurement arise from flawed judgments of primary indicators and use of indefensible methodologies.

### **Flawed judgments of primary sources**

These arise from imprecise survey questions, non-representative sample (mostly foreign experts and interest groups and lack of evaluation by citizens) and ideological and objective biases of organizations and experts making governance evaluations as discussed below.

#### **i. Ambiguous Questions**

Poor conceptualization of the concept of governance leads to ambiguous, imprecise and tricky questions in the surveys used in WGIs. A large number of questions in the surveys are vague, ambiguous and difficult to answer for the country experts, business executives and citizens. This leaves a large room for misinterpreting these questions and as a result, the indicators may not reveal the desired information. Examples of few dubious, difficult questions are given below from various sources which are publicly available:

- Latinobarometer (LBO): “How much do you trust the parliament?”
- Freedom House (FHR): “Is there freedom from extreme government indifference and corruption?”
- Global Insight’s DRI/McGraw-Hill (DRI): “A deterioration of government capacity to cope with national problems as a result of institutional rigidity or gridlock that reduces the GDP growth rate by 1% during any 12 month period.”  
“A decline in government personnel quality at any level that reduces the GDP growth rate by 2% during any 12 month period.”

- “An increase in government personnel turnover rate at senior levels that reduces the GDP growth rate by 2% during any 12 month period.”
- World Economic Forum (GCS): “Percentage of firms which are unofficial” (this should not be a perception question, data are available for the size of informal/shadow economy)
  - Index of Budget (LAI): Is it possible to detect inexplicable enrichment by way of declaration of goods that functionaries have made?”
  - Afrobarometer (AFR): “What proportion of the country’s problems do you think the government can solve?”
  - Institute for Management Development (WCY): “Whether real personal taxes are non distortionary”, “Whether real corporate taxes are non distortionary”

One may ask what percentages of questions are fraught with problems. In fact, a significant share of questions of few sources is questionable. For Example, WGIs use only two questions from Latino Barometer and one of them, as cited above, is very dubious. There are a large number of countries where only a couple of sources are used and if these sources contain one or two faulty questions, it can contaminate the estimates for governances and the cross country comparison would be misleading. These types of unclear and complicated questions lead to enormous measurement error of the estimates of governance, making the estimates inconsistent.

## **ii. Flawed Composition of Respondents**

Country experts and business executives from local and international companies and also experts from donor agencies are generally surveyed. But the sources are not at all transparent about the background information of the respondents. It is not specified how these respondents are selected. It is important to know if there is any bias in selecting these respondents. If it is, it will be reflected in the indicators. We know that perception of corruption changes with education, economic status, culture, religion, age, etc. of the respondents. Allmon et al. (2000) showed that age and religious orientations are important factors affecting perceptions of ethical business behavior. Therefore, a well

designed stratified sampling of the respondents is necessary to better represent the population's perception of governance.

Assessments by expert may also have strong home bias. In making assessments of governance situation, the experts are likely to compare countries to their home country. There are two possible ways the experts' (often expatriate) assessments of governance can be biased. First, if the experts come predominantly from a particular cultural background (with similar values and a similar definition of governance), then the expert assessments would overly reflect that culture's view. Secondly, the experts may not have a proper understanding of the culture in countries other than their home country, and this may also bias their evaluation of governance in those countries (Thompson and Shah, 2005).

Sometimes multinational companies wind up their business not only because of corrupt public practice of the host countries, but also because of malpractice of companies themselves. In this case, if any business executives from these companies are interviewed, perception may be bias downward. The opposite is also true. So, it is important to know the names of the multinationals whose executives are surveyed. If the composition of the respondents of primary sources is not well scrutinized, it may cause two kinds of biases – ideological bias and objective bias.

### **Ideological Bias**

Indicators may be unduly influenced by the ideology of the surveyors/publishers, be it non-profit organizations or credit-rating agencies or advocacy groups. Van De Walle (2005) noted ideological bias for World Economic Forum and IMD Business School. World Economic Forum has biased towards free trade, strong intellectual property protection, liberal capital accounts, no government intervention. It does not recognize market failure. IMD Business School advocates that state intervention in business activities should be minimized. ICRG also shows bias about the nature of government. It assumes that length of time that the government has been in power is a strong indication of the level of corruption.

Kaufmann et al (2004) investigates the effect of ideological tendencies of the institutions compiling the indicators. It only looks at the effect of a poll survey of a smaller number of experts affiliated with a certain institutions, as it is argued that ideological bias may be more prominent and thus detectable for polls of small group of people than the surveys of large number of firms and households. It is found that perception about political stability is highly influenced by ideology; almost all the sources assign higher scores to countries with right-of-center governments than the corresponding surveys. 7-10 percent point higher ranking for a right-of-center government is found which the authors term “fairly modest”. However, the robustness of the results is questionable.

### Objective Bias

Objectives of the primary sources are different. Not all sources’ primary concern is to measure the level of governance. Four types of sources are used in 2006 WGIs—i) Commercial business information providers, Surveys of firms and households, NGOs and Public sector organizations as given in Table 3.

**Table 3: Type and Name of the Sources of WGI 2006**

Source Type	Names of Sources
Commercial business information providers	Business Environment Risk Intelligence Business Risk Service (BRI), Global Insight Global Risk Service (DRI), Economist Intelligence Unit (EIU), iJET Country Security Risk Ratings (IJT), Merchant International Group Gray Area Dynamics (MIG), Political Risk Services International Country Risk Guide (PRS), Business Environment Risk Intelligence Financial Ethics Index (QLM), Global Insight Business Conditions and Risk Indicators (WMO).
Surveys of firms and households	Afrobarometer (AFR), Business Enterprise Environment Survey (BPS), Transparency International Global Corruption Barometer Survey (GCB), World Economic Forum Global Competitiveness Report (GCS), Gallup World Poll (GWP), Latinobarometro (LOB), Political Economic Risk Consultancy Corruption in Asia Survey (PRC), Institute for Management and Development World Competitiveness Yearbook (WCY).
NGOs	Bertelsmann Transformation Index (BTI), Freedom House Countries at the Crossroads (CCR),

	Global E-Governance Index (EGV), Freedom House (FRH), Global Integrity Index (GII), Heritage Foundation Index of Economic Freedom (HER), International Research and Exchanges Board Media Sustainability Index (MSI), International Budget Project Open Budget Index (OBI), Reporters Without Borders Press Freedom Index (RSF).
Public sector organizations	African Development Bank Country Policy and Institutional Assessments (ADB), OECD Development Center African Economic Outlook (AEO), Asian Development Bank Country Policy and Institutional Assessments (ASD), European Bank for Reconstruction and Development Transition Report (EBR), Cingranelli Richards Human Rights Database and Political Terror Scale (HUM), IFAD Rural Sector Performance Assessments (IFD), World Bank Country Policy and Institutional Assessments (PIA), US State Department Trafficking in People report (TPR).

Source: Kaufmann et al (2007a)

Commercial business information provider rates the credit worthiness of a country and in that process it puts weights on governance issues. The aspects of governance which are important for a credit rating house may not reflect the core definition of governance. For example, the credit rating houses or any private organization selling their credit rating to multinational companies are interested to examine how the business will be affected by governance situation of a country. For example, The Heritage Foundation's Index of Economic Freedom (HER) considers the extent of labor, environmental, consumer safety and worker's health regulation in constructing the indicators. Ideological bias of the commercial institution may also be reflected in composition of respondents.

On the other hand, the prime objectives of public sector data providers are to develop criteria to assess the performance of the countries and provide assistance based on these criteria. NGOs also develop governance indicators for their own purposes to advocate their views.

Table 4 shows that in 2006 WGIs the data points overwhelmingly come from one type of data source which is commercial business information providers. 46 percent of total data points come from this source. For Political Stability this source accounts for 72 percent. Only 12 percent and 16 percent of total data points are from survey of households and firm and public sectors respectively. There is no information available from NGO

sources. Except VA, where data points come mostly from NGOs (0.37), for most of the dimensions of governance, commercial business information provider dominates. Therefore, the estimated governance indicators measure the governance with ‘commercial objective’ bias.

Moreover, weighting each data point by the weight it gets in the process of aggregation for each country (Kaufmann, et al, 2007a), we see that the weighted average share of country level data points for commercial business information providers rises to 60 percent while weighted share of household surveys and public sector decline to 10 and 14 percent respectively.

**Table 4: Commercial Objective Bias of the Indicators**

(Distribution of Data Points by Type of Sources of 2006 WGIs )

	Commercial business information providers	Surveys of firms and households	NGOs	Public sector organizations	Total
Voice and Accountability	497 (0.27)	340 (0.18)	684 (0.37)	324 (0.18)	1845
Political Stability	1027 (0.72)	179 (0.12)	0 (0.00)	227 (0.16)	1433
Government Effectiveness	845 (0.46)	371 (0.20)	315 (0.17)	314 (0.17)	1845
Regulatory Quality	795 (0.49)	206 (0.13)	277 (0.17)	343 (0.21)	1621
Rule of Law	960 (0.40)	371 (0.15)	410 (0.17)	655 (0.27)	2396
Control of Corruption	959 (0.46)	439 (0.24)	133 (0.07)	314 (0.17)	1845
Total	5083 (0.46)	1906 (0.17)	1819 (0.17)	2177 (0.20)	10985

Source: Authors’ compilation from Kaufmann et al (2007a)

Our above argument is reinforced if we look at the distribution of weights by type of sources (Table 5). In Political Stability, Government Effectiveness and Rule of Law, commercial business information providers receive predominantly higher weights than other sources. In Regulatory Quality and Control of Corruption major weights are distributed between commercial information providers and public sector and between



commercial information provider and surveys respectively. Only in case of Voice and Accountability, the NGOs get the highest weights. Therefore, it is the citizen's voice which is almost missing in WGI.

**Table 5: Western Business Perspectives Dominate Governance Assessments**

(Distribution of Weights by Type of Sources, 1996-2006 WGIs)

	Year	Commercial Business information provider	Surveys of Firms and Households	Non- Governmental Organization Data Provider	Public Sector Data Provider
Voice and Accountability	1996	0.17	0.42	0.29	0.9
	1998	0.55	0.03	0.23	0.14
	2000	0.58	0.01	0.26	0.11
	2002	0.26	0.05	0.57	0.09
	2003	0.22	0.06	0.67	0.07
	2004	0.34	0.05	0.53	0.07
	2005	0.28	0.10	0.56	0.05
	2006	0.20	0.07	0.67	0.05
Political Stability	1996	0.51	0.00	0.00	0.43
	1998	0.78	0.00	0.00	0.17
	2000	0.70	0.13	0.00	0.11
	2002	0.71	0.10	0.00	0.14
	2003	0.68	0.08	0.00	0.20
	2004	0.76	0.07	0.00	0.14
	2005	0.75	0.09	0.00	0.12
	2006	0.76	0.08	0.00	0.11
Government Effectiveness	1996	0.64	0.13	0.00	0.19
	1998	0.81	0.08	0.00	0.09
	2000	0.56	0.12	0.00	0.29
	2002	0.55	0.20	0.07	0.16
	2003	0.53	0.20	0.08	0.17
	2004	0.49	0.21	0.08	0.21
	2005	0.51	0.24	0.06	0.18
	2006	0.44	0.24	0.08	0.22
Regulatory	1996	0.30	0.51	0.07	0.09
Quality	1998	0.25	0.40	0.06	0.24

	2000	0.30	0.30	0.06	0.31
	2002	0.45	0.14	0.14	0.23
	2003	0.46	0.11	0.12	0.28
	2004	0.42	0.08	0.13	0.35
	2005	0.41	0.09	0.14	0.33
	2006	0.37	0.13	0.12	0.37
Rule of Law	1996	0.54	0.20	0.22	0.02
	1998	0.60	0.15	0.14	0.09
	2000	0.60	0.14	0.12	0.11
	2002	0.51	0.17	0.17	0.14
	2003	0.55	0.15	0.18	0.09
	2004	0.49	0.15	0.23	0.12
	2005	0.46	0.17	0.21	0.14
	2006	0.44	0.18	0.23	0.14
Control of Corruption	1996	0.60	0.37	0.00	0.00
	1998	0.40	0.30	0.19	0.09
	2000	0.31	0.35	0.17	0.15
	2002	0.35	0.30	0.17	0.17
	2003	0.35	0.28	0.24	0.11
	2004	0.34	0.31	0.23	0.10
	2005	0.33	0.35	0.23	0.08
	2006	0.30	0.34	0.24	0.11

Source: Authors' compilation from Kaufmann et al (2007a)

Kurtz and Schrank (2006) have aptly pointed out that these systematic errors "...may result from selection problems, perceptual biases, and survey design and aggregations. While KKM have made such, we worry that the study of governance may to some extent still be characterized by what Klitgaard, Fedderke, and Akramov call 'an explosion of measures, with little progress toward theoretical clarity or practical utility' (2005, 414)".

## PROBLEMS IN METHODOLOGY (WEIGHTS/AGGREGATION TECHNIQUE)

### i) Equal Weighting

All the questions are given same weight to construct the primary indicator. But not all the questions are of equal importance in capturing a particular dimension of governance. As a

result some countries may perform better on less important questions and get high scores. To give an example, we distinguish between more-important and relatively less-important questions of Freedom House (FRH) which are used in Voice and Accountability (VA) Indicator of WGI:

Definitions of VA: “The extent to which a country’s citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association and free media”

Box 2: Few Questions of Civil Liberties category of Freedom House (FRH):

More important questions	Relatively less important questions
<ul style="list-style-type: none"> <li>• Are there free and independent media, literature and other cultural expressions?</li> <li>• Is there open public discussion and free private discussion?</li> <li>• Is there freedom of assembly and demonstration?</li> </ul>	<ul style="list-style-type: none"> <li>• Are there free trade unions and peasant organizations or equivalents, and is there effective collective bargaining?</li> <li>• Are there free professional and other private organizations?</li> <li>• Are there free businesses or cooperatives?</li> </ul>

Source: Kaufmann et al (2007a)

Therefore, if all the questions are equally weighted, ignoring their relative importance in light of the definition of governance, the indicator will be very weak in capturing the true concept of governance. Again, measurement error and thus inconsistent estimates are the unavoidable consequences. It is imperative to find a way to assign weights on questions of unequal importance.

## ii) Assumption of Constant Global Average

WGIs estimates are rescaled to have zero mean and unit standard deviation for each period. Because of this assumption, trend in country’s governance indicator can be very misleading. Take a hypothetical example. Suppose there are two countries with score -1, and 1. Note that the mean is 0 and standard deviation is 1, as required by construction of WGIs. Now suppose the governance of the country with score 1 improved in the next

period while the other country (with scores -1) saw no change. In order to keep mean at zero, the score of the second country will go down. Now, if we look at the trend of governance with initial score -1, we will find deterioration of governance, though, in fact, governance situation remained same for this country. Governance situation declined only in relative sense, relative to world average.

However, Kaufmann et al (2007b) observed that there was insignificant evidence of trend in global average of governance. This observation/assumption implies that there is no difference between absolute and relative changes of a country's position in WGIs.

But the problem is what if we see a trend in governance in next five years, upward or downward? Then this construction will no longer be valid and this will call for new methodology. Comparison of governance with two different methodologies will be more misleading.

In this era of internet with blogs and Youtube, one can safely argue that government's transparency and accountability have improved. Islam (2007) showed that the world has seen major improvements in transparency and associated improvements in government accountability in recent years.

Though it is argued that world governance is constant over time, careful examination reveals that it is not true for all indicators for the period 1996-2006.

**Table 6: Global Trends in Governance 1996-2006 for Selected Sources:**

		Average			Std.Dev.				
	Sample	1996	2002	2006	1996	2002	2006	Change	t-Statistic
Voice and Accountability									
EIU	120	0.41	0.43	0.47	0.25	0.25	0.26	0.06	1.79
FRH	196	0.56	0.58	0.58	0.31	0.30	0.30	0.02	0.79
GCS (Press Freedom / Parliament)	95	..	0.57	0.55	..	0.15	0.15	-0.01	-0.59
PRS	140	0.63	0.63	0.67	0.25	0.26	0.25	0.04	1.33
HUM	155	0.63	0.66	0.58	0.34	0.35	0.34	-0.05	-1.34
RSF	137	..	0.73	0.73	..	0.23	0.23	0.01	0.26
WMO	181	..	0.55	0.57	..	0.26	0.24	0.04	1.55
Political Stability									
DRI	106	0.82	0.68	0.84	0.18	0.27	0.16	0.02	1.01
EIU	120	0.56	0.56	0.59	0.25	0.24	0.23	0.03	0.99
GCS (cost of terrorism)	95	..	0.66	0.67	..	0.17	0.14	0.01	0.57
PRS	140	0.70	0.75	0.73	0.13	0.12	0.11	0.03	1.98
HUM	177	0.65	0.63	0.62	0.29	0.25	0.26	-0.04	-1.27
WMO	181	..	0.67	0.68	..	0.24	0.22	0.01	0.54
Government Effectiveness									
DRI	106	0.57	0.46	0.72	0.28	0.30	0.21	0.15	4.46
EIU	120	0.43	0.39	0.37	0.31	0.31	0.27	-0.06	-1.67
GCS (Infrastructure quality)	95	..	0.53	0.51	0.22	0.24	0.23	-0.02	-0.66
PRS	140	0.58	0.54	0.54	0.24	0.29	0.28	-0.04	-1.38
WMO	181	..	0.56	0.57	..	0.23	0.23	0.04	1.62
Regulatory Quality									
DRI	106	0.82	0.76	0.86	0.16	0.20	0.13	0.04	2.22
EIU	120	0.54	0.54	0.56	0.22	0.22	0.22	0.02	0.73
GCS (burden of regulations)	95	..	0.30	0.35	0.15	0.13	0.12	0.06	3.17
HERITAGE	153	0.56	0.56	0.60	0.12	0.12	0.12	0.04	3.22
WMO	181	..	0.58	0.59	..	0.25	0.25	0.04	1.57
Rule of Law									
DRI	106	0.71	0.63	0.81	0.20	0.25	0.17	0.09	3.61
EIU	120	0.49	0.51	0.53	0.27	0.26	0.24	0.04	1.30
GCS (organized crime / police / independent judiciary)	95	..	0.56	0.57	..	0.21	0.20	0.00	0.09
HERITAGE	153	0.57	0.49	0.46	0.23	0.24	0.24	-0.11	-4.07
PRS	140	0.72	0.62	0.63	0.23	0.24	0.22	-0.09	-3.46
QLM	115	0.45	0.46	0.44	0.29	0.30	0.30	-0.01	-0.17
HUM	159	0.59	0.57	0.51	0.36	0.36	0.40	-0.08	-1.92
WMO	181	..	0.58	0.59	..	0.23	0.23	0.02	0.77
Control of Corruption									
DRI	106	0.58	0.52	0.66	0.26	0.32	0.27	0.08	2.24
EIU	120	0.35	0.35	0.38	0.33	0.34	0.31	0.02	0.51
GCS (bribe frequency)	95	..	0.64	0.65	..	0.22	0.18	0.01	0.46
PRS	140	0.59	0.41	0.42	0.21	0.19	0.20	-0.17	-7.10
QLM	115	0.39	0.40	0.37	0.29	0.29	0.29	-0.02	-0.47
WMO	181	..	0.52	0.53	..	0.27	0.26	0.03	1.08

Source: Kaufmann et al (2007a)

From Table 6 we see that for a good number of sources, the change is significant over 1996-2006. Moreover, we notice a common sign for all of the major sources for ‘regulatory quality’. All of the five sources reported have positive signs and three of them are statistically significant at 1-10 percent level. Therefore, for regulatory quality, one cannot interpret ‘relative’ change as ‘absolute’ change and comparing a country’s score at two different times will be very misleading.

In other cases, direction of changes of one or two sources are opposite from others. For example, if we take out PRS (which gets 8 percent of total weight) from Control of Corruption, all most all of sources show positive change, though may not be statistically significant. This is also true for Government Effectiveness. If we drop DRI (which gets 4 percent of total weight), for all other major sources changes are mostly negative.

Therefore, if we impose the restriction of constant global mean over time, it is highly likely that the change in direction of sources will not be same as change in direction of estimated governance indicators. This problem is reflected in ‘Agreement Ratio’ that Kaufmann et al (2007a) calculated<sup>3</sup>.

Kaufmann et al (2007a) first define a variable “Agree” which reports the number of sources available in 2002 and 2006 and move in the same direction as the aggregate indicator. The variables labeled ‘No Change’ and ‘Disagree’ report the number of sources on which that country’s score does not change or moves in the opposite direction to the aggregate indicator. ‘Agreement Ratio’ thus calculated by dividing ‘Agree’ by the sum of ‘Agree’ and ‘Disagree’ ( $\text{Agree}/(\text{Agree} + \text{Disagree})$ )

**Table 7: Agreement Ratio for Changes in Governance, 2002-2006**

	Sample	Agree	No change	Disagree	Agree/(Agree +Disagree)
Voice and accountability	199	2.0	0.8	0.9	0.70
Political Stability	189	1.9	0.5	0.8	0.70
Government Effectiveness	194	1.9	0.9	0.9	0.68
Regulatory Quality	194	2.5	0.4	1.3	0.66
Rule of Law	194	2.5	1.7	1.4	0.64
Control of Corruption	194	2.0	1.3	1.1	0.65
Average	194	2.1	0.9	1.1	0.67

Source: Kaufmann et al (2007a)

<sup>3</sup> Kaufmann et al (2007a) calculated the ‘agreement ratio’ in order to make the point that large changes in governance are due to changes in underlying sources where ‘agreement ratio’ for large changes are found to be significantly higher than the ratios for all changes in governance.

From Table 7 we see that on an average disagreement ratio is 33 percent. This implies that for each country, on an average, changes in direction of 33 percent of sources are in opposite direction to the aggregate indicators.

## **ii) Correlated Errors<sup>4</sup>**

Correlated errors of different sources lead to identification problem. For an example, any error in ICRG's estimates of governance of Bangladesh is assumed to be uncorrelated with error of any other sources' estimates of governance of Bangladesh. Also error in ICRG's estimates of governance of Bangladesh is assumed to be uncorrelated with the errors of ICRG's estimates for other countries. Correlated error may occur in the following ways:

- a. Perception of the country experts of one source can be influenced by experts of other sources. It can be true that same country experts or business executives serve in experts panels of different sources.
- b. Sources can be influenced by the same anecdotal information or third party's perceptions.
- c. Perceptions used as inputs for Kaufmann's governance indicator are often influenced, significantly and in similar ways, both by crises (financial and/or political) and by perceived changes or longer term trends in a country's *economic* performance (Arndt and Oman, 2006).
- d. Similar ideological or objective bias is common for a large number of sources and it gives rise correlated errors for these sources.
- e. Since concept of good or bad governance is culture and context specific, perception error of different sources that rely on respondents from the same country or culture are likely to be correlated.

Arndt and Oman (2006) provided few examples of correlated errors:

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<sup>4</sup> This argument draws heavily on Arndt and Oman (2006).

- i. World Bank advises its staff responsible for producing CPIA (which serve Kaufmann as a source) to use, among others, the Kaufmann indicators and some of their sources (e.g. ICRG, the Heritage Foundation's Index of Economic Freedom)
- ii. Freedom House supplies indicators that Kaufmann uses in constructing three different sources<sup>5</sup>.
- iii. Amnesty International and US State Department supply human rights data used by both the University of Carolina's 'Political Terror Scale' and the University of Binghamton's 'Cingranelli and Richards Human Rights Database' which Kaufmann uses as different sources.
- iv. The Economist Intelligence Unit, which is Kaufmann's one of the main sources, uses a version of Transparency International's CPI "cleansed" of the EIU's original data as a benchmark for its own ratings, and the CPI uses practically the same sources as the Kaufmann's 'Control of Corruption' ( Galtung, 2005)

It is found that EIU rankings are strongly correlated with lagged ranking of WEF (Lambsdorff, 2005). This may imply that EIU assessment may be influenced by the most recently available WEF. WEF and IMD are found to have based on similar executive surveys and it is highly likely to have a common set of executives for both surveys (Knack, 2006). Kaufman et al (2007b) concede that such concerns do reduce the value of aggregate indicators but argue that correlated errors do not necessarily call for discarding the data, rather they may contain useful information<sup>6</sup>.

### **iii) Country Specific Weights for Unbalanced Sample**

If each country has a different number of sources, weights are country specific. Recall the formula for weight:

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<sup>5</sup> 2006 WGIs used two sources from Freedom House unlike 2005 WGI. It dropped Freedom House Nation in Transition (FHT). However, it is surprising that Kaufmann et al (2007) did not mention that FHT was dropped in 2006 WGIs while a section discussed the new revisions (p. 7-10, Kaufmann et al, 2007).

<sup>6</sup> See Kaufman et al (2007b) for details.



For each source  $k$ ,  $w(k) = \frac{\sigma_{\varepsilon}(k)^{-2}}{1 + \sum_{k=1}^{K(j)} \sigma_{\varepsilon}(k)^{-2}}$

Now suppose country A has 3 sources, so the weight on source  $k_1$  is:

$$w(A, k_1) = \frac{\sigma_{\varepsilon}(k_1)^{-2}}{1 + \sigma_{\varepsilon}(k_1)^{-2} + \sigma_{\varepsilon}(k_2)^{-2} + \sigma_{\varepsilon}(k_3)^{-2}}$$

Country B has only one source  $k_1$ , so the weight on source  $k_1$  is:

$$w(B, k_1) = \frac{\sigma_{\varepsilon}(k_1)^{-2}}{1 + \sigma_{\varepsilon}(k_1)^{-2}}$$

Therefore, weight on a source  $k_1$  varies across countries as  $w(A, k_1) \neq w(B, k_1)$ .

It is evident that only a balanced sample (same number of sources for all countries) should be used to calculate the weights to avoid country specific weights. Kaufmann et al (2007a), specifically, the website <http://info.worldbank.org/governance/wgi2007/> provides the weights used to aggregate the individual sources. It is noted that “The weights used in constructing the aggregate governance indicators correspond to those that would be applied for a hypothetical country appearing in all of the available sources for that indicator.” Therefore the weights reported in Kaufmann et al (2007a) and also in the website are the hypothetical weights which would only be used in the case of a hypothetical country appearing in all of the sources for each indicator.

Therefore, for the countries with fewer sources the weights are very country specific and weights will not be the same for the countries that appear in most of the sources. Take an extreme example. There are 12 countries in 2006 WGIs which have only one data source for Voice and Accountability (see Table 10 for the name of the countries). This source is Global Insight Business Conditions and Risk Indicators (WMO). Now take another country, say, Bangladesh which has 12 data sources including WMO. For the sake of

argument, assume the error variances for all sources are identical and equal to 1. Then weight on WMO for a country with single source will be more than 6 times higher than that of Bangladesh<sup>7</sup>.

Table 9 reports the number of countries with 3 or less number of sources. Though this number is declining over time, still the number of countries with few sources is large. For example, in 2006 Political Stability indicator 42 countries have 3 or fewer sources. This figure is above 30 for all categories of governance. One can safely note that for these countries the difference between actual and hypothetical weights will be very large.

When weights are country specific, cross country and over time comparison become very misleading. It is important to know how the actual size of the estimates of weights differ from the hypothetical ones and to what extent they vary with the number of sources. The problem of country specific weights is compounded by the following two problems, namely, dominance of few sources and presence of ‘non-representative’ sources.

### **Dominance of Few Sources**

33 data sources were used to construct 2006 WGIs. Median number of sources per country is between 8 and 13 for all six categories of governance indicators. However, from table 6 we notice that a few sources dominate the WGIs as far as weighting is concerned. Economist Intelligence Unit’s Country Risk Service (EIU), Global Insight Global Risk Service (DRI), Global Insight Business Conditions and Risk Indicator (WMO) and Freedom House (FRH) are four major sources. Note that 3 out of 4 (EIU, DRI, WMO) are commercial business information provider. Therefore, the objective and ideological bias of these three types of indicators will pass on to the aggregated estimates.

**Table 8: Top Three Sources According to Weights of WGIs, 1996-2006**

Indicators	Year	1	2	3	Total weights (1+2+3)	# Of Sources
Voice and	1996	0.42 (LOB)	0.29 (FRH)	0.11 (EIU)	0.82	7

<sup>7</sup> Kaufman et al (2007b) argued that the aggregate estimates are robust to different weighting schemes, including equal weighting.

Accountability	1998	0.23 (FRH)	0.19 (EIU)	0.19 (PRS)	0.61	8
	2000	0.26 (FRH)	0.23 (PRS)	0.17 (WMO)	0.66	7
	2002	0.18 (FRH)	0.18 (BTI)	0.18 (MSI)	0.54	13
	2003	0.20 (CCR)	0.16 (MSI)	0.13 (FRH)	0.49	15
	2004	0.16 (EIU)	0.14 (MSI)	0.14 (BTI)	0.44	16
	2005	0.14 (EIU)	0.13 (MSI)	0.13 (BTI)	0.40	17
	2006	0.17 (CCR)	0.12 (MSI)	0.12 (BTI)	0.41	18
Political Stability	1996	0.22 (HUM)	0.21 (AEO)	0.20 (DRI)	0.63	6
	1998	0.24 (PRS)	0.16 (DRI)	0.16 (EIU)	0.56	7
	2000	0.23 (DRI)	0.16 (EIU)	0.15 (WMO)	0.54	8
	2002	0.19 (EIU)	0.17 (DRI)	0.14 (WMO)	0.50	10
	2003	0.18 (WMO)	0.16 (EIU)	0.13 (DRI)	0.47	10
	2004	0.14 (WMO)	0.14 (EIU)	0.13 (DRI)	0.41	11
	2005	0.15 (DRI)	0.14 (WMO)	0.12 (EIU)	0.41	11
	2006	0.17 (WMO)	0.17 (EIU)	0.12 (DRI)	0.44	11
Governance Effectiveness	1996	0.35 (EIU)	0.19 (PIA)	0.12 (BRI)	0.66	7
	1998	0.54 (WMO)	0.10 (EIU)	0.09 (DRI)	0.73	9
	2000	0.21 (WMO)	0.15 (ASD)	0.13 (EIU)	0.49	10
	2002	0.21 (WMO)	0.15 (EIU)	0.08 (AFR)	0.44	16
	2003	0.16 (WMO)	0.15 (EIU)	0.12 (AFR)	0.43	15
	2004	0.15 (EIU)	0.12 (WMO)	0.10 (AFR)	0.37	17
	2005	0.22 (WMO)	0.11 (GCS)	0.10 (EIU)	0.43	17
	2006	0.15 (WMO)	0.10 (AFR)	0.09 (BRI)	0.34	18
Regulatory Quality	1996	0.32 (WCY)	0.19 (GCS)	0.16 (DRI)	0.67	8
	1998	0.22 (WCY)	0.18 (GCS)	0.10 (EIU)	0.50	10
	2000	0.17 (WCY)	0.14 (WMO)	0.10 (ADB)	0.41	12
	2002	0.19 (WMO)	0.11 (WCY)	0.11 (EIU)	0.41	14
	2003	0.22 (WMO)	0.10 (EIU)	0.09 (WCY)	0.41	14
	2004	0.18 (WMO)	0.13 (ADB)	0.09 (EIU)	0.40	15
	2005	0.19 (WMO)	0.14 (ADB)	0.11 (BTI)	0.44	15
	2006	0.17 (WMO)	0.14 (ADB)	0.10 (EBR)	0.41	15
Rule of Law	1996	0.24 (EIU)	0.17 (FRH)	0.12 (WCY)	0.53	11
	1998	0.18 (WMO)	0.17 (EIU)	0.11 (QLM)	0.46	14
	2000	0.19 (EIU)	0.17 (WMO)	0.08 (DRI)	0.44	17
	2002	0.13 (EIU)	0.13 (WMO)	0.08 (DRI)	0.34	20
	2003	0.15 (WMO)	0.12 (EIU)	0.09 (DRI)	0.36	22
	2004	0.14 (FRH)	0.13 (WMO)	0.12 (EIU)	0.39	23
	2005	0.13 (EIU)	0.12 (FRH)	0.10 (WMO)	0.35	23
	2006	0.12 (FRH)	0.11 (EIU)	0.09 (WMO)	0.32	24
Control of Corruption	1996	0.32 (EIU)	0.27 (WCY)	0.11 (QLM)	0.70	7
	1998	0.19 (FRH)	0.14 (PRC)	0.11 (QLM)	0.44	13
	2000	0.17 (FRH)	0.11 (PRC)	0.10 (QLM)	0.38	15
	2002	0.17 (FRH)	0.12 (PRC)	0.11 (ASD)	0.40	17
	2003	0.24 (FRH)	0.16 (PRC)	0.09 (EIU)	0.49	19
	2004	0.23 (FRH)	0.12 (PRC)	0.09 (WCY)	0.44	21
	2005	0.23 (FRH)	0.17 (PRC)	0.08 (EIU)	0.48	21
	2006	0.24 (FRH)	0.11 (WCY)	0.08 (QLM)	0.43	22

Source: Authors' compilation from Kaufmann and et al. (2007a).

Note: figures in parentheses are percentage of weights given to the indicator. ■ indicates the sources with less than 64 country coverage.

Table 8 shows the top three sources according to the distribution of weights. In case of Voice and Accountability, first three sources accounted for 82 percent of total weights in 1996. However, this share declines over time with the increase in number of sources. Still

in 2006, the share of three major sources out of total 18 sources is 41 percent. In fact, for all categories of governance, except Regulator Quality, total share of weights on largest three sources sum up to more than 40 percent in the year 2006 where average number of total source is about 20.

### **Non Representative Sources**

Based on country coverage, sources were categorized as representative and non representative (See table 1 of Kaufmann et al., 2006). In table 6 we highlight the non representative sources where country coverage is below 64 with yellow color<sup>8</sup>. There are a good number of non representative sources such as MSI, WCY, PRC, ADB, etc which receive very high weights in aggregation process. For an example, in case of Control of Corruption larger weights are given to WCY and PRC in different years. In 2006-Voice and Accountability, LOB alone get 42 percent weights which covers only 18 Latin American countries. In case of Regulatory Quality from 1996 to 2000, WCY, which covers only 53 countries, got the largest weight.

Non representative sources make the weights country specific and may lead to misleading cross country and time series comparison.

## **PROBLEMS WITH CROSS-COUNTRY COMPARISONS**

### **1. Unbalanced Sample**

Not all data sources cover all countries equally. Different types of sources which measure different dimensions of governance are used in different years. As a result, different number of countries, and different number and types of sources make comparisons across countries and time very misleading. Misleading comparison may occur due to 5 reasons:

1. Number of countries vary over time
2. Number of sources vary across countries
3. Number of sources vary for a country over time
4. Types of sources (CBIP, GOV, NGO, Survey) vary across countries.
5. Types of sources vary for a country over time.

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<sup>8</sup> Table A2 in appendix shows that country coverage of 64 serves as a good threshold.

On an average, the numbers of countries used for six different categories of governance indicators are 177, 194, 196, 197, 200, 2007, 2008 and 209 in the year 1996, 1998, 2000, 2002, 2003, 2004, 2005 and 2006 respectively. The samples are characterized by inclusion and exclusion of sources in every year. For example, the median number of sources for political stability indicator is 4, 5, 5, 6, 6, 7, 7 and 8 during 1996-2006. Even though the median number of sources is same for few years, the composition of sources may be different. Table 9 shows how median numbers of sources and total number countries have changed over time.

**Table 9: Median Number of Sources per Country (Total Number of Countries)**

	Voice and Accountability	Political Stability	Government Effectiveness	Regulatory Quality	Rule of Law	Control of Corruption
1996	4 (194)	4 (180)	3 (182)	4 (183)	6 (171)	4 (154)
1998	5 (199)	5 (189)	4 (194)	5 (194)	7 (194)	5 (194)
2000	5 (200)	5 (190)	5 (196)	6 (196)	8 (196)	6 (196)
2002	7 (201)	6 (190)	8 (202)	8 (197)	11 (197)	7 (197)
2003	8 (201)	6 (200)	8 (202)	8 (197)	11 (202)	8 (198)
2004	8 (208)	7 (207)	9 (208)	8 (204)	12 (210)	8 (206)
2005	9 (209)	7 (208)	9 (209)	8 (204)	12 (210)	9 (206)
2006	9 (209)	8 (209)	10 (212)	9 (206)	13 (211)	10 (207)

Source: Kaufmann et al (2007a)

**Table 10: Number of Countries with 3 and Less Number of Sources**

Indicators	Year	Number of countries with 1-3 number of sources			Total (1+2+3)	Country coverage
		1	2	3		
Voice and Accountability	1996	29	26	31	86	194
	1998	21	14	26	61	199
	2000	22	13	26	61	200
	2002	20	11	9	40	201
	2003	6	15	10	31	201
	2004	13	6	8	27	208
	2005	13	6	9	28	209
	2006	12	5	14	31	209
Political Stability	1996	29	30	28	87	180
	1998	14	24	29	67	189

	2000	15	23	28	66	190
	2002	13	20	21	54	190
	2003	19	14	21	54	200
	2004	13	14	17	44	207
	2005	10	18	15	43	208
	2006	7	18	17	42	209
Governance Effectiveness	1996	39	25	36	100	182
	1998	20	16	26	62	194
	2000	15	18	27	60	196
	2002	10	12	14	36	202
	2003	10	9	14	33	202
	2004	17	2	9	28	208
	2005	17	3	8	28	209
	2006	19	4	10	33	212
Regulatory Quality	1996	20	24	20	64	183
	1998	19	7	16	42	194
	2000	14	12	17	43	196)
	2002	14	12	13	39	197
	2003	13	11	9	33	197
	2004	15	4	16	35	204
	2005	15	4	16	35	204
	2006	17	8	10	35	206
Rule of Law	1996	11	17	19	47	171
	1998	18	6	10	34	194
	2000	14	10	10	34	196
	2002	13	12	7	32	197
	2003	11	8	10	29	202
	2004	19	2	6	27	210
	2005	18	3	6	27	210
	2006	17	5	8	30	211
Control of Corruption	1996	28	12	27	67	154
	1998	20	14	19	53	194
	2000	15	18	19	52	196
	2002	15	19	15	49	197
	2003	14	14	13	41	198
	2004	17	6	14	37	206
	2005	15	9	14	38	206
	2006	16	10	11	37	207

Source: Authors' compilation from Kaufmann et al (2007a).

From table 10 we see in the year 1996, 47 (36%) to 100 (55%) of countries have at best 3 data source for all six categories, with 11 (6%) to 39 (21%) countries with only one data source. However the share of countries with 3 or less data sources has decreased over time. In 2000, 34 (17%) to 66 (35%) countries have at best 3 data sources. In the same year the number of countries with only one data source varies from 14 to 22 (7-11%). In 2006, the number of countries with at best 3 data sources for all six indicators is between 31 (15%) and 42 (20%). In this year the number of countries with only one data source varies from 7 (3%) to 19(9%).

For a country where a small number of sources are used to construct the indicator, the likelihood of having poor conceptualization of governance is very high. In table 9, we saw that a large number of countries in different years have 3 or less number of sources. For these countries, the estimates of governance may not represent the ‘true’ definition of governance for all six categories. To illustrate this point, we compile the countries with one source of 2006 voice and accountability (VA), name of source and the questions in table 11. Note that all the twelve countries have same source, that is, Global Insight’s Business Condition and Risk Indicator (WMO). This source uses two types of questions- institutional permanence and representativeness. In institutional permanence category, one set of questions is on the assessment of the maturity of the political system (specific questions are not given). One can wonder how this set of questions is related to voice and accountability.

Recall the definition of Voice and Accountability (VA). It is defined as “the extent to which a country’s citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association and free media”. Given this definition, a narrow and faulty concept of Voice and Accountability is captured for these 12 countries with one data source.

**Table 11: Name, Source and Questions for the Countries with One Data Source (Voice and Accountability 2006)**

Name of country/territory	Data source	Questions
---------------------------	-------------	-----------

American Samoa Anguilla Aruba Bermuda Cayman Island French Guiana Guam Macao Martinique Netherlands Antilles Reunion Virgin Islands	Global Insight's Business Condition and Risk Indicator (WMO)	<p><b><i>Institutional permanence</i></b> An assessment of how mature and well-established the political system is. It is also an assessment of how far political opposition operates within the system or attempts to undermine it from outside.</p> <p><b><i>Representative ness</i></b> How well the population and organized interests can make their voices heard in the political system.</p>
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Source: Kaufmann et al (2007a)

An attempt to compare VA of these countries with any other countries with higher number of sources and richer set of question will be highly misleading, irrespective of the choice of aggregation techniques.

### **Abrupt Changes in Weights**

In this section we will cite few incidences of the abrupt changes of weights which are very questionable and may give rise to the discrete jumps in the movement of governance indicators.

1. Weights on some sources change drastically over time. Voice and Accountability Indicator in 1996 uses 7 sources. In 1998, a new source WMO (0.17) was added and as a result weight on LBO drastically declined from 0.42 in 1996 to 0.02 in 1998. The weights on PRS also abruptly increased from 0.06 to 0.19.
2. In 2000 Voice and Accountability, total number of sources was 7. However, in 2002, 6 new sources were added. Among the new sources, two of them had very high weights, 0.18 each. This inclusion of new sources reduces the weights on PRS drastically from 0.23 to 0.09. This inclusion of heavy-weight sources in 2002 makes the comparison between 2000 and 2002 very misleading.
3. Political Stability Indicator also sees abrupt change in weights over time. In 1996, the weight on PRS was 0.05 but it increased to 0.24 in 1998. This increase in



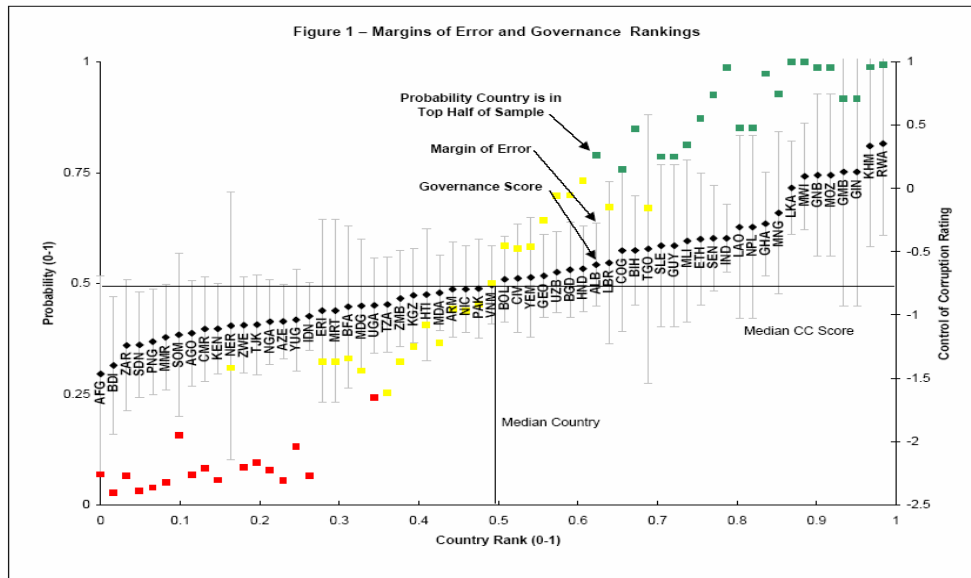
- weight on PRS is compensated largely by a reduction of weights on AEO from 0.21 in 1996 to 0.03 in 1998. Only one new source was added in 1998 with a weight of 0.14. The reasons behind the abrupt changes in weights on other sources because of inclusion of a source are not clear.
4. It is interesting to observe that Political Stability indicator in the year 2000 and 2002 had the exact same sources. However, the weights given to the sources are different in these two years. Also, the year 2004, 2005 and 2006 had the exact same sources but different weights are assigned in these 3 years for different sources. It is not obvious why these hypothetical weights will be different for an indicator for the exact same sources for two different years.
  5. In Government Effectiveness Indicator, a new heavy-weight source (WMO) was added in 1998 which alone account for 54 percent of total weight. Inclusion of this weight reduces the weight on EIU from 0.35 in 1996 to 0.10 in 1998. In the year 2000, another new source (ASD) was added which carried 15 percent weight. To account for this new inclusion, weight on WMO reduced from 0.54 in 1998 to 0.21 in 2000. However, adding a new 'non representative' source is (ASD=Asian Development Bank) compensated by loss of weight of a 'representative' source (WMO). This will make the comparison of Asian and Non Asian countries over 1998-2000 very misleading.
  6. In the case of Regulatory Quality the year 2004, 2005 and 2006 had the exact sources but different weights are assigned in these 3 years for different sources. Similar phenomena are observed in the case of Rule of Law for 2004 and 2005.
  7. Control of Corruption also saw some drastic changes in the weights between 1996 and 1998. Weights on EIU dropped from 0.32 to 0.10 and weights on WCY dropped from 0.27 to 0.05.

8. It is interesting to note that the weights do not add up to one in most of cases. In the case of Political Stability 1996, weights for all sources add up to only 0.941390 and this discrepancy is not due to rounding up.

### **High Measurement Errors**

With high measurement error of the estimates, the ranking of the countries can be very misleading. Though there is no significant difference in the estimates of the governance of a group of countries, these countries are ranked differently. It creates the possibility of misuse of this indicator by a third party. Even Classifying countries in the presence of high measurement errors can also be misleading as it requires finding few threshold points. Kaufmann and Kraay (2002) ranked 61 out of 74 potential MCA countries for Control of Corruption using 2000 indicators (see figure 1). The black diamond represents the estimates of corruption and the vertical lines signify the margins of error for each country. It tells that we are 90 percent confident that corruption of a country will lie within the range indicated by the corresponding vertical line. From the figure we can say that we are confident about only a handful of counties who lie above and below the threshold point (the median). The authors noted, “For the majority of countries there is a non-trivial probability that they could be mistakenly classified in the bottom half of the sample – when a perfectly accurate measure would have indicated that they should be in the top half, and vice versa.”

**Figure 1: Margin of error and governance ranking:**



Source: Kaufmann and Kraay. (2002)

Kaufmann and Kraay (2002) also categorized the countries as -- Green light, Red light and Yellow light. There is reasonable confidence that Green and Red light countries are above and below the threshold line, more than 75 percent chance that they actually belong to the top half and less than 25 percent chance that they are mistakenly classified in the bottom half. There are 21 Green light and 17 Red light countries. In between there are 23 Yellow light countries about which we cannot say anything confidently in which half they belong. The authors have suggested using additional country specific information to make decision about these countries.

In the year 1996, average (for all countries and indicators) of standard errors was 0.33. In the year 2006 average standard error for Political Stability is still 0.27 and for other indicators it ranges from 0.20 to 0.22.

## 5. IMPLICATIONS AND THE WAY FORWARD

The use of flawed governance indicators may act as non trade barriers for developing countries in aid, FDI and foreign trade issues. The dependence of foreign aid, FDI and

trade on some criteria based on perception indices may initiate competition among developing countries to improve on the country rankings. One possible way to improve the perception of the governance of that country is to hire international lobbyist firms. Because, in most of the cases perceptions of the business executives of multinational firms and country specialists of donor agencies are used to construct the indices and these perceptions could possibly be altered through public relations campaigns, diplomacy and lobbying. From political economy of trade, we know that the firms pressure the government to impose or eliminate trade barriers on some products that serve their interests through lobbying groups. Analogously, governments of the developing countries could do the same to move up the ranking of the governance indices in order to avoid any non-compliance. So, instead of improving the governance situation of the country, the developing countries may invest in image building in the western world through lobbying groups. Corrupt regimes in these countries may consider such a strategy more cost effective and politically viable than undertaking difficult reforms to improve governance.

The need of foreign assistance and FDI for developing countries has not been diminished in the last half a century. Therefore negative impact of flawed judgments contained in these indices could be potentially enormous. That is why much care is needed in making fair and unbiased assessments. The above discussions on the weakness of WGIs necessitate the urgency of developing indicators that truly capture the citizens' evaluations of governance outcomes in their own countries. For this to happen, one needs to

1. Build a consensus on conceptual framework that captures critical aspects of governance outcomes that are shared almost universally;
2. Identify a small group of key indicators that capture governance outcomes that matter most. The weights of these indicators should reflect their relative importance in determining governance quality.
3. Citizens in all countries should be surveyed using a stratified random sample and a uniform questionnaire consistent with key indicators;
4. This survey work could be supplemented by objective country based economic and social indicators that capture quality of life citizens.

5. If there was a need for having an external perspective then the methodology of assessment and names and credentials of outside experts along with their judgments and basis of such judgments must be disclosed.

Of course none of the above work should be a substitute for in-depth country case studies to inform governance reforms.

## **6. Conclusions**

This paper has surveyed the composite indexes on quality of governance and provided an in depth review of the widely used Worldwide Governance Indicators (WGIs). This review concludes that WGIs use state of the art aggregation techniques but fail on most fundamental considerations. They lack a conceptual framework of governance and use flawed and biased primary indicators that primarily attempt to capture Western business perspectives on governance processes using one-size-fits-all norms about such processes. They almost completely neglect citizens' evaluations of governance outcomes especially any changes in the quality of life. These deficiencies and changing weights, respondents and criteria lead us to conclude that the use of such indicators in cross-country and time series comparisons could not be justified. Such use is already complicating the development policy dialogue and creating much controversy and acrimony. WGIs indeed characterize what Klitgaard et al (2005) call "an explosion of measures, with little progress toward theoretical clarity or practical utility" (p.414) and we agree with Thomas (2006) that "reliance upon them for any purpose is premature" (p.1).

This should not be cause for despair as assessing governance quality is an important task and must be undertaken with care. This paper lays out a conceptual framework which stresses that governance quality for comparative purposes is most usefully assessed by focusing on key governance outcomes capturing the impact of governments on the quality of life enjoyed by its citizens. These assessments should preferably be based on citizens' evaluations. Such evaluations are not only feasible but also would be more credible and conducive for meaningful and productive development policy dialogues on improving governance quality.



Table A1: Hypothetical weights used in WGI, 1998-2006

	Voice and Accountability								Political Stability							
	1996	1998	2000	2002	2003	2004	2005	2006	1996	1998	2000	2002	2003	2004	2005	2006
<b>Commercial Business Information Providers</b>																
bri	..	..	..	..	..	..	..	..	0.16	0.09	0.10	0.10	0.08	0.10	0.10	0.09
dri	..	..	..	..	..	..	..	..	0.20	0.16	0.23	0.17	0.13	0.13	0.15	0.12
ei	0.11	0.19	0.18	0.10	0.10	0.16	0.14	0.10	0.11	0.16	0.16	0.19	0.16	0.14	0.12	0.17
ijt	..	..	..	..	..	..	..	..	..	..	..	..	..	0.10	0.11	0.09
mig	..	..	..	..	..	..	..	..	..	..	..	0.06	0.08	0.10	0.08	0.07
prs	0.06	0.19	0.23	0.09	0.06	0.07	0.05	0.05	0.05	0.24	0.07	0.05	0.05	0.04	0.05	0.05
qlm	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
wmo	..	0.17	0.17	0.07	0.06	0.11	0.09	0.05	..	0.14	0.15	0.14	0.18	0.14	0.14	0.17
<b>Surveys of Firms or Households</b>																
afr	..	..	..	0.00	0.00	0.00	0.04	0.03	..	..	..	..	..	..	..	..
bps	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
gcb	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
gcs	..	..	..	0.02	0.02	0.02	0.04	0.02	..	..	..	0.05	0.04	0.03	0.05	0.03
gwp	..	..	..	..	..	..	..	0.00	..	..	..	..	..	..	..	..
lbo	0.42	0.02	..	0.01	0.03	0.02	0.01	0.01	..	..	..	..	..	..	..	..
pre	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
wcy	0.00	0.01	0.01	0.02	0.01	0.01	0.01	0.01	..	..	0.13	0.05	0.04	0.04	0.04	0.05
<b>Non-Governmental Organization Data Providers</b>																
bti	..	..	..	0.18	0.13	0.14	0.13	0.12	..	..	..	..	..	..	..	..
ccr	..	..	..	..	0.20	0.12	0.11	0.17	..	..	..	..	..	..	..	..
egv	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
frh	0.29	0.23	0.26	0.18	0.13	0.09	0.09	0.11	..	..	..	..	..	..	..	..
gii	..	..	..	..	0.02	0.02	0.02	0.09	..	..	..	..	..	..	..	..
her	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
msi	..	..	..	0.18	0.16	0.14	0.13	0.12	..	..	..	..	..	..	..	..
obi	..	..	..	..	..	..	0.05	0.04	..	..	..	..	..	..	..	..
rsf	..	..	..	0.03	0.03	0.02	0.03	0.02	..	..	..	..	..	..	..	..
<b>Public Sector Data Providers</b>																
adb	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
aeo	0.02	0.03	0.00	0.04	0.01	0.02	0.01	0.01	0.21	0.03	0.02	0.07	0.08	0.05	0.03	0.03
asd	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
ebr	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
hum	0.07	0.11	0.11	0.05	0.04	0.04	0.03	0.03	0.22	0.14	0.09	0.07	0.12	0.09	0.09	0.08
ifd	..	..	..	..	..	0.01	0.01	0.01	..	..	..	..	..	..	..	..
pia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
tpr	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

	Government Effectiveness								Regulatory Quality							
	<u>1996</u>	<u>1998</u>	<u>2000</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>1996</u>	<u>1998</u>	<u>2000</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>
<b>Commercial Business Information Providers</b>																
bri	0.12	0.06	0.07	0.06	0.06	0.07	0.08	0.09	..	..	..	..	..	..	..	..
dri	0.10	0.09	0.09	0.07	0.07	0.06	0.04	0.04	0.16	0.09	0.04	0.04	0.04	0.03	0.03	0.03
eiw	0.35	0.10	0.13	0.15	0.15	0.15	0.10	0.08	0.08	0.10	0.09	0.11	0.10	0.09	0.09	0.06
ijt	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
mig	..	..	..	0.01	0.03	0.03	0.03	0.04	..	..	..	0.02	0.03	0.03	0.03	0.04
prs	0.08	0.02	0.07	0.06	0.06	0.06	0.04	0.05	0.06	0.04	0.02	0.10	0.07	0.08	0.08	0.07
qlm	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
wmo	..	0.54	0.21	0.21	0.16	0.12	0.22	0.15	..	0.03	0.14	0.19	0.22	0.18	0.19	0.17
<b>Surveys of Firms or Households</b>																
afr	..	..	..	0.08	0.12	0.10	0.08	0.10	..	..	..	..	..	..	..	..
bps	..	..	..	0.00	0.00	0.00	0.00	0.00	..	..	0.04	0.00	0.00	0.00	0.00	0.00
gcb	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
gcs	0.08	0.06	0.08	0.06	0.05	0.07	0.11	0.08	0.19	0.18	0.09	0.03	0.02	0.03	0.03	0.06
gwp	..	..	..	..	..	..	..	0.01	..	..	..	..	..	..	..	..
lbo	..	..	..	0.02	..	0.01	0.02	0.02	..	..	..	..	..	..	..	..
prc	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
wcy	0.05	0.02	0.04	0.04	0.03	0.03	0.03	0.03	0.32	0.22	0.17	0.11	0.09	0.05	0.06	0.07
<b>Non-Governmental Organization Data Providers</b>																
bti	..	..	..	0.06	0.07	0.07	0.06	0.07	..	..	..	0.10	0.09	0.09	0.11	0.09
ccr	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
egv	..	..	..	0.01	0.01	0.01	0.00	0.01	..	..	..	..	..	..	..	..
frh	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
gii	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
her	..	..	..	..	..	..	..	..	0.07	0.06	0.06	0.04	0.03	0.04	0.03	0.03
msi	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
obi	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
rsf	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
<b>Public Sector Data Providers</b>																
adb	..	0.03	0.04	0.02	0.04	0.09	0.05	0.06	..	0.09	0.10	0.07	0.05	0.13	0.14	0.14
aeo	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
asd	..	..	0.15	0.07	0.05	0.05	0.08	0.09	..	..	0.02	0.02	0.10	0.03	0.02	0.03
ebr	..	..	..	..	..	..	..	..	0.03	0.08	0.10	0.07	0.07	0.08	0.08	0.10
hum	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
ifd	..	..	..	..	..	0.02	0.01	0.03	..	..	..	..	..	0.04	0.02	0.03
pia	0.19	0.06	0.10	0.07	0.08	0.05	0.04	0.04	0.06	0.07	0.09	0.07	0.06	0.07	0.07	0.07
tpr	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..



	Rule of Law								Control of Corruption							
	<u>1996</u>	<u>1998</u>	<u>2000</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>1996</u>	<u>1998</u>	<u>2000</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>
<b>Commercial Business Information Providers</b>																
bri	0.10	0.05	0.06	0.05	0.06	0.06	0.07	0.07	0.03	0.01	0.01	0.01	0.01	0.01	0.01	0.01
dri	0.07	0.06	0.08	0.08	0.09	0.07	0.03	0.03	0.09	0.06	0.05	0.04	0.05	0.06	0.03	0.03
eiw	0.24	0.17	0.19	0.13	0.12	0.12	0.13	0.11	0.32	0.10	0.06	0.11	0.09	0.08	0.08	0.05
ijt	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
mig	..	..	..	0.02	0.03	0.03	0.03	0.04	..	..	..	0.01	0.03	0.03	0.02	0.04
prs	0.04	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.05	0.01	0.01	0.03	0.02	0.02	0.03	0.03
qlm	0.09	0.11	0.08	0.07	0.08	0.08	0.07	0.08	0.11	0.11	0.10	0.08	0.08	0.08	0.08	0.08
wmo	..	0.18	0.17	0.13	0.15	0.13	0.10	0.09	..	0.11	0.08	0.07	0.08	0.07	0.08	0.07
<b>Surveys of Firms or Households</b>																
afr	..	..	..	0.04	0.04	0.03	0.02	0.01	..	..	..	0.01	0.01	0.01	0.01	0.02
bps	..	..	0.01	0.00	0.00	0.00	0.00	0.00	..	..	0.07	0.01	0.01	0.01	0.01	0.02
gcb	..	..	..	..	..	..	..	..	..	..	..	..	..	0.03	0.02	0.02
gcs	0.07	0.09	0.08	0.07	0.04	0.05	0.07	0.09	0.10	0.10	0.06	0.05	0.04	0.05	0.05	0.08
gwp	..	..	..	..	..	..	..	0.00	..	..	..	..	..	..	..	0.01
lbo	0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.01	..	0.01	0.06	0.05	0.00	0.00	0.01	0.00
prc	..	..	..	..	..	..	..	..	..	0.14	0.11	0.12	0.16	0.12	0.17	0.08
wcy	0.12	0.05	0.05	0.05	0.06	0.06	0.07	0.07	0.27	0.05	0.05	0.06	0.06	0.09	0.08	0.11
<b>Non-Governmental Organization Data Providers</b>																
bti	..	..	..	0.04	0.04	0.03	0.03	0.03	..	..	..	..	..	..	..	..
ccr	..	..	..	..	0.00	0.00	0.00	0.01	..	..	..	..	0.00	0.00	0.00	0.00
egv	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
frh	0.17	0.09	0.08	0.08	0.08	0.14	0.12	0.12	..	0.19	0.17	0.17	0.24	0.23	0.23	0.24
gii	..	..	..	..	0.01	0.01	0.01	0.02	..	..	..	..	0.00	0.00	0.00	0.00
her	0.05	0.05	0.04	0.05	0.05	0.04	0.05	0.05	..	..	..	..	..	..	..	..
msi	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
obi	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
rsf	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
<b>Public Sector Data Providers</b>																
adb	..	0.03	0.02	0.03	0.02	0.02	0.04	0.05	..	0.03	0.02	0.02	0.01	0.04	0.02	0.03
aeo	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
asd	..	..	0.03	0.05	0.02	0.03	0.03	0.02	..	..	0.08	0.11	0.05	0.01	0.01	0.01
ebr	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
hum	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	..	..	..	..	..	..	..	..
ifd	..	..	..	..	..	0.01	0.01	0.01	..	..	..	..	..	0.01	0.01	0.02
pia	..	0.04	0.05	0.04	0.03	0.05	0.05	0.05	..	0.06	0.05	0.04	0.05	0.04	0.04	0.05
tpr	..	..	0.00	0.01	0.01	0.00	0.00	0.00	..	..	..	..	..	..	..	..

Table A2: Sources of WGI 2006

Code	Source	Type*	Public	Country Coverage										
				Represe	-ntative	1996	1998	2000	2002	2003	2004	2005	2006	
ADB	African Development Bank Country Policy and Institutional Assessments	Expert (GOV)	Partial	52			x	x	x	x	x	x	x	
AEO	OECD Development Center African Economic Outlook	Expert (GOV)	Yes	33		x	x	x	x	x	x	x	x	
AFR	Afrobarometer	Survey	Yes	18				x	x	x	x	x	x	
ASD	Asian Development Bank Country Policy and Institutional Assessments	Expert (GOV)	Partial	25				x	x	x	x	x	x	
BPS	Business Enterprise Environment Survey	Survey	Yes	27				x	x	x	x	x	x	
BRI	Business Environment Risk Intelligence Business Risk Service	Expert (CBIP)	Yes	50		x	x	x	x	x	x	x	x	
BTI	Bertelsmann Transformation Index	Expert (NGO)	Yes	120					x	x	x	x	x	
CCR	Freedom House Countries at the Crossroads	Expert (NGO)	Yes	63							x	x	x	
DRI	Global Insight Global Risk Service	Expert (CBIP)	Yes	142	x	x	x	x	x	x	x	x	x	
EBR	European Bank for Reconstruction and Development Transition Report	Expert (GOV)	Yes	29		x	x	x	x	x	x	x	x	
EGV	Global E-Governance Index	Expert (NGO)	Yes	198	x				x	x	x	x	x	
EIU	Economist Intelligence Unit	Expert (CBIP)	Yes	154	x	x	x	x	x	x	x	x	x	
FRH	Freedom House	Expert (NGO)	Yes	197	x	x	x	x	x	x	x	x	x	
GCB	Transparency International Global Corruption Barometer Survey	Survey	Yes	62					x	x	x	x	x	
GCS	World Economic Forum Global Competitiveness Report	Survey	Yes	125	x	x	x	x	x	x	x	x	x	
GII	Global Integrity Index	Expert (NGO)	Yes	41						x	x	x	x	
GWP	Gallup World Poll	Survey	Yes	130	x								x	
HER	Heritage Foundation Index of Economic Freedom	Expert (NGO)	Yes	157	x	x	x	x	x	x	x	x	x	
HUM	Cingranelli Richards Human Rights Database and Political Terror Scale	Expert (GOV)	Yes	192	x	x	x	x	x	x	x	x	x	
IFD	IFAD Rural Sector Performance Assessments	Expert (GOV)	Yes	100							x	x	x	
IJT	iJET Country Security Risk Ratings	Expert (CBIP)	Yes	187	x						x	x	x	
LOB	Latinobarometro	Survey	Yes	18		x	x	x	x	x	x	x	x	
MIG	Merchant International Group Gray Area Dynamics	Expert (CBIP)	Yes	156	x				x	x	x	x	x	
MSI	International Research and Exchanges Board Media Sustainability Index	Expert (NGO)	Yes	38					x	x	x	x	x	
OBI	International Budget Project Open Budget Index	Expert (NGO)	Yes	59									x	
PIA	World Bank Country Policy and Institutional Assessments	Expert (GOV)	Partial	136		x	x	x	x	x	x	x	x	
PRC	Political Economic Risk Consultancy Corruption in Asia Survey	Survey	Yes	12			x	x	x	x	x	x	x	
PRS	Political Risk Services International Country Risk Guide	Expert (CBIP)	Yes	140	x	x	x	x	x	x	x	x	x	
QLM	Business Environment Risk Intelligence Financial Ethics Index	Expert (CBIP)	Yes	115	x	x	x	x	x	x	x	x	x	
RSF	Reporters Without Borders Press Freedom Index	Expert (NGO)	Yes	166	x				x	x	x	x	x	
TPR	US State Department Trafficking in People report	Expert (GOV)	Yes	149	x			x	x	x	x	x	x	
WCY	Institute for Management and Development World Competitiveness Yearbook	Survey	Yes	53		x	x	x	x	x	x	x	x	
WMO	Global Insight Business Conditions and Risk Indicators	Expert (CBIP)	Yes	202	x		x	x	x	x	x	x	x	

\*CBIP – Commercial Business Information Provider, GOV – Public Sector Data Provider, NGO – Non-Governmental Organization Data Provider

### Table A3. Aggregation of Worldwide Governance Indicators

WGIs aggregate available governance indicators into six clusters.

1. *Voice and accountability (VA)*: the extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and free media". This concept is captured by a host of primary indicators.

The key concepts measured by important sources are:

- Orderly transfers
- Vested interests
- Accountability of Public Officials
- Human Rights
- Freedom of association
- Freedom of speech, of assembly and demonstration, of religion, equal opportunity, of --
- Excessive governmental intervention
- Institutional Stability
- Link between donations and policy
- Passive voice
- Press Freedom Index
- Stateness
- Are there any imprisoned people because of their ethnicity, race, or their political, religious beliefs?

2. *Political stability and absence of violence (PV)*: "perceptions of the likelihood that the government will be destabilized or overthrown by unconstitutional or violent means, including political violence and terrorism". The key concepts measured by important sources are:

- *Military Coup Risk* : A military coup d'état (or a series of such events) that reduces the GDP growth rate by 2% during any 12-month period.
- *Major Insurgency/Rebellion* : An increase in scope or intensity of one or more insurgencies/rebellions that reduces the GDP growth rate by 3% during any 12-month period.
- *Political Terrorism*: An increase in scope or intensity of terrorism that reduces the GDP growth rate by 1% during any 12-month period.
- *Political Assassination*: A political assassination (or a series of such events) that reduces the GDP growth rate by 1% during any 12-month period.
- *Civil War* : An increase in scope or intensity of one or more civil wars that reduces the GDP growth rate by 4% during any 12-month period.
- *Major Urban Riot*: An increase in scope, intensity, or frequency of rioting that reduces the GDP growth rate by 1% during any 12-month period.

-*Terrorism* Whether the country suffers from a sustained terrorist threat, and from how many sources. The degree of localization of the threat is assessed, and whether the active groups are likely to target or affect businesses.

-Armed conflict

-Violent demonstrations

-Social Unrest

-International tensions

-Fractionalization of political spectrum and the power of these factions.

-Fractionalization by language, ethnic and/or religious groups and the power of these factions.

- Organization and strength of forces for a radical government.

-Societal conflict involving demonstrations, strikes, and street violence.

3. *Government effectiveness (GE)*: “the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government’s commitment to such policies”. The key concepts measured are:

-*Government Instability* : An increase in government personnel turnover rate at senior levels that reduces the GDP growth rate by 2% during any 12-month period.

-*Government Ineffectiveness*: A decline in government personnel quality at any level that reduces the GDP growth rate by 1% during any 12-month period.

-*Institutional Failure*: A deterioration of government capacity to cope with national problems as a result of institutional rigidity that reduces the GDP growth rate by 1% during any 12-month period.

-Global E-government

-Quality of bureaucracy

-Excessive bureaucracy / red tape

-Public Spending Composition

-Quality of general infrastructure

-Quality of public schools

-Time spent by senior management dealing with government officials

-Satisfaction with public transportation system

-Satisfaction with roads and highways

-Satisfaction with education system

-Policy consistency and forward planning

-Management of public debt

-Revenue Mobilization

-Budget Management

-Allocation & management of public resources for rural development

-Trust in Government

-The public service is not independent from political interference

4. *Regulatory quality (RQ)*: “the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development”. The key concepts measured by important sources are:

-*Regulations -- Exports*: A 2% reduction in export volume as a result of a worsening in export regulations or restrictions (such as export limits) during any 12-month period, with respect to the level at the time of the assessment.

-*Regulations -- Imports*: A 2% reduction in import volume as a result of a worsening in import regulations or restrictions (such as import quotas) during any 12-month period, with respect to the level at the time of the assessment.

-*Regulations -- Other Business* : An increase in other regulatory burdens, with respect to the level at the time of the assessment, that reduces total aggregate investment in real LCU terms by 10%

-*Ownership of Business by Non-Residents*: A 1-point increase on a scale from "0" to "10" in legal restrictions on ownership of business by non-residents during any 12-month period.

-*Ownership of Equities by Non-Residents* : A 1-point increase on a scale from "0" to "10" in legal restrictions on ownership of equities by non-residents during any 12-month period.

-Unfair competitive practices

-Price controls

-Discriminatory tariffs

-Excessive protections

-Administrative regulations are burdensome

-Tax system is distortionary

-Competition in local market is limited

-Anti monopoly policy is lax and ineffective

Environmental regulations hurt competitiveness

-Complexity of tax System

-Trade policy

-Competitive environment

-Public sector contracts are sufficiently open to foreign bidders

-Real corporate taxes are non distortionary

-Real personal taxes are non distortionary

-Subsidies impair economic development

5. *Rule of law (RL)*: “the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, the police, and the courts, as well as the likelihood of crime and violence”. The key concepts measured by important sources are:

- Losses and Costs of Crime* : A 1-point increase on a scale from "0" to "10" in crime during any 12-month period.
- Kidnapping of Foreigners* : An increase in scope, intensity, or frequency of kidnapping of foreigners that reduces the GDP growth rate by 1% during any 12-month period.
- Enforceability of Government Contracts* : A 1 point decline on a scale from "0" to "10" in the enforceability of contracts during any 12-month period.
- Enforceability of Private Contracts*: A 1-point decline on a scale from "0" to "10" in the legal enforceability of contracts during any 12-month period.
- Violent crime
- Organized crime
- Fairness of judicial process
- Enforceability of contracts
- Speediness of judicial process
- Confiscation/expropriation
- Quality of Police
- The judiciary is independent from political influences of members of government, citizens or firms
- Intellectual Property protection is weak
- Illegal donation to parties
- Have you been a victim of crime?
- Property Rights
- Independence of Judiciary

6. *Control of corruption (CC)*: “the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as “capture” of the state by elites and private interests”. The key concepts measured by important sources are:

- Risk Event Outcome non-price: Losses and Costs of Corruption: A 1-point increase on a scale from "0" to "10" in corruption during any 12-month period.
- Public trust in financial honesty of politicians
- Diversion of public funds due to corruption is common
- Frequent for firms to make extra payments connected to: import/export permits
- Frequent for firms to make extra payments connected to: public utilities
- Frequent for firms to make extra payments connected to tax payments
- Frequent for firms to make extra payments connected to: awarding of public contracts
- Frequent for firms to make extra payments connected to: getting favorable judicial decisions
- Extent to which firms' illegal payments to influence government policies impose costs on other firms
- Bribery influencing laws
- Undue political influence
- Is corruption in government widespread?
- Inherently instability in the political system.

- Indirect Diversion of Funds
- Intrusiveness of the country's bureaucracy.
- How many elected leaders (parliamentarians or local councilors) do you think are involved in corruption?
- How many judges and magistrates do you think are involved in corruption?
- How many government officials do you think are involved in corruption?
- How many border/tax officials do you think are involved in corruption?

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