Governance indicators: A guide

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Abstract

Interest in countries’ governance has increased in recent years. Also the availability of governance indicators has increased. These are used by investors, aid donors and researchers. Surveys and studies on corruption, bureaucracy, protection of property rights and more, abound. This paper reviews some commonly used governance indicators. Their use and their usefulness are discussed. It is concluded that governance indicators are a useful tool for evaluations of countries’ performance, but that they should be complemented with other sources of information. Use of governance indicators to evaluate effects of trade and trade policy is discussed. It is argued that governance indicators potentially can explain the heterogeneity that is revealed in studies of the impact of international trade and trade liberalization.

1. Introduction

In recent years there has been a growing interest in relations between governance and economic development. This increasing interest is present both in academics, among donors, in politics and in business. This development has been accompanied with increased supply of governance indicators. These indicators are supplied both by non-profit non-government organizations, development organizations (like the World Bank) and for-profit agencies.

In this paper I present some governance indicators, their construction and their use. Since the scope of the paper is limited and the literature on governance is large, it is impossible to review the literature in detail. Lambsdorff (2005), for instance, found no less than a hundred papers on corruption alone in leading academic journals. It is far beyond the scope of this paper to review the complete literature. Only some issues and some indicators will be discussed.

Section 2 discusses the need for government indicators. The recent increase in the interest in governance is explained by Arndt and Oman (2006) as a consequence both of the end of the cold war and as a need from development experiences. Previously, investments, resources, human capital, international trade and other important factors were regarded as main drivers for development. Today there is a growing consensus that also governance is a major and critical ingredient in development receipts. Also, there is no support for hypotheses that improved governance will follow automatically from economic
development. There is a two-sided relationship: governance explains development while improved governance is often also a consequence of development.

Many hundred researchers around the world are involved in constructing and developing governance indicators. The selection of the indicators presented in section 3 is based on my wish to exemplify both some commonly used indicators and also issues that arise in constructing and using them. Section 3 presents and goes through some importance indicators that are available. The scope of the paper is limited and only a handful of indicators is presented.

It is typical that indicators are aggregate indicators. There are many sources of many aspects of governance, for different countries and regions and for periods of time. Aggregated indicators make use of many individual sources of information, databases and indicators. Aggregating indicators gives rise to methodological issues. But aggregation methodology also gives new opportunities. Daniel Kaufmann, Aart Kraay and Massimo Mastruzzi are pioneers in this respect. They have developed a broad and large database of governance indicators. Their methodology allows them to construct confidence intervals for indicators so that their precision can be measured. Section 4 presents these indicators in some detail.

The recent surge in available governance indicators has also given raise to a debate on the usefulness of them. In section 5 we go through some elements in this debate. Some points are relevant for most indicators while others are relevant for a few only.

Measures of governance are made from both objective criteria and from subjective ones. Subjective criteria are often based on surveys that capture perceptions of for instance corruption. Some are based on experts’ perceptions, some on firms’ perceptions and some on peoples’ perceptions. Others are based on reported experienced with corruption. Important indicators of corruption are based on aggregates of different measures. In section 5 some issues about measuring corruption in particular and governance in general are discussed.

Governance indicators are used for many purposes. They are used by businessmen, by donors and in academics. Section 6 discusses the use of governance indicators. We pay most attention to the use in academic development studies. The effects of different types of economic activities may depend crucially on institutions and governance. These include trade policy and international investments. We ask the question whether trade liberalization depends on good governance to be successful. The literature on trade and growth has not yet concluded and leaves an impression of heterogeneous results. Is this because only the combination of good governance and international economic integration result in growth while trade alone does not necessarily results in development?

Section 7 also concludes this summary paper and discusses some possible avenues for future work.
2. The need for government indicators

Governance is a broad concept and necessarily includes many facets of a society. As such indicators of governance cover many different aspects of social organization. Governance can be defined in different ways and proposals abound. Governance denotes how a society is organized and its procedures and rules for allocation of resources, power and change.

Kaufmann et al. (2004) define governance as the traditions and institutions by which authority in a country is exercised. This includes the process by which governments are selected and replaced, the capacity of the government to formulate and implement sound policies, and the respect for citizens and the state for the institutions that govern economic and social interaction among them.

World Bank (2007) defines governance as the ways public officials and public institutions acquire and exercise authority to provide public goods and services, including basic services, infrastructure, and a sound investment climate.

UNDP (2007) defines governance as the system of values, policies and institutions by which a society manages its economic, political and social affairs through interactions within and among the state, civil society and private sector. It is the way a society organizes itself to make and implement decisions – achieving mutual understanding, agreement and action.

The European Commission defines governance as the state’s ability to serve the citizens. It refers to the rules, processes, and behaviors by which interests are articulated, resources are managed, and power is exercised in society (cited from UNDP, 2007).

Governance therefore, refers to how authority is created, shaped, exercised and changed. Note that governance is not limited to public authorities in all the definitions above, but public institutions have a role in all of them. In the definitions proposed by the UNDP, governance refers to interactions within and among the state, civil society and the private sector.

It seems – and it is – obvious that governance matters for economic performance and for the effectiveness of economic policy. For instance, if property rights are not protected, incentives for long term investments are reduced. Consequently capital accumulation is low.

Governance is inherent in all human societies and it has, therefore, very different natures. In some societies, private property rights are limited while they are constitutive in others. In some societies, marriage is entered under the auspices of a religious society, in other societies under the auspices of the state. In many countries, tariffs are used to protect national industries. In others, tariffs are an important source of public incomes. In most societies, public governments run schools, but not in all. In all countries, corruption is
illegal since this follows from its definitions, but laws about, prosecutions of and sanctions to corrupt acts differ widely between countries.

Demzetz (1967) presents an interesting analysis of the developments of property rights. He shows how the need for property rights occurred as some resources became scarce and how property rights, and protection of it, developed as a consequence of such developments. In particular his analysis focused on the occurrence of property rights in America. His analysis takes as point of departure external effects of economic activities. Property rights are one way of internalizing external effects. When property rights exist, owners take into account the effects of use of assets. When property rights are absent, such effects are often ignored. Coase (1960) discusses many examples of how property rights internalize externalities in his seminal article The Problem of Social Cost. From literature on property rights, a core message is that their existence is critical. Economic theory has fewer messages on the distribution of property, between individuals or between private and public agents. This follows from the so-called Coase-theorem: 

bargaining can achieve an efficient allocation of resources whatever assignment of property rights (Gravelle and Rees, p. 518, 1992). Here efficient denotes Pareto-efficient and not fair.

Though there are many conditions and prerequisites for an economic efficient solution to materialize. These include absence of external effects, complete information, (in some cases) absence of increasing returns to scale, absence of public goods and many more. It is a governance task to handle violations of many such conditions for economic efficiency.

In institutional economics, focus is on transaction costs. Because of transaction costs, many transactions are not completed. Institutions (and therefore governance) very often have the function to reduce transactions costs and establish environment of trust between economic agents.

Governance also determines how political decisions are made and the extent to which conflicts of interest are repressed or solved with compromises. Redistribution, insurance and social safety nets are important aspects of national governance.

Measures of governance have experienced a renaissance in recent years. There are now a plethora of governance indicators. Arndt and Oman (2006) describe this renewed interest as the result of four developments. First is the increase in international investments. Foreign direct investments have grown tremendously over the last two decades. FDI to developing countries rose from less than 10 billion USD in 1980 to a more than 200 billion USD in 2000 and 300 billion USD in 2006. Foreign direct investments in total added up to 1300 billion USD in 2000 and about 600 billion USD in 2006. In addition comes portfolio investments, i.e. investments in bonds and shares that are not followed by direct control and lasting interest.

1 FDI dropped considerably in the aftermath of the 2001 terror attack on World Trade Centre, but more so for FDI going to developed countries than to developing countries. See UNCTAD (2007).
FDI in developing countries has become important for international investors in order to serve local markets, global markets or the investors’ home markets. As a consequence of increased international investments, governance in developing countries has gained interest. How can social and physical infrastructure, protection of property rights and public services serve investors’ needs? What is the risk of social upheaval or expropriation? Do workers speak English? How are wages determined? Questions like these have generated a market for governance indicators. Indicators are needed for help in investment decisions.

Second, the end of the cold war ended the ideological war between market economy and communism. Developing assistance is not any longer used to support anti-communist regimes or to reduce communist sympathies in developing countries. Arndt and Oman interpret the World Bank’s recent increased interest in corruption and governance as a consequence of this. They do not however, discuss the analogue use of development assistance as a weapon in the war on terror.

Third, writes Arndt and Oman, also growing perceptions that many policy reforms in developing countries failed during the 1980s is an explanation for the growth of interest in governance. Reforms initiated under the “Washington consensus” did not turn out successful. One change has been that more weight is put on governance.

The fourth reason for increased interest in governance is increased interest for these aspects in many sub-disciplines in economics and development studies. New institutional economics demonstrates the importance of countries’ systems of governance. In trade theory, development and growth economics, and macroeconomics new insights have led to increased optimism about the potential benefits of government interference in economical life – and increased warnings about economic mismanagement.

We may also hold that globalization has increased the need for measures of and knowledge about governance. Globalization means that economic interactions and transactions across national and cultural borders and long geographical distances have become easier and cheaper. This is the result of technological changes and political changes - of which the end of communism is one. Globalization has therefore created a need for better knowledge about governance. For globalization to result in increased economic interaction many prerequisites are present. For instance, agents need codified knowledge about other countries. FDI is one example. To invest in another country, investors need to know the host country. Another is international trade. International trade and FDI may also increase the need for good governance, in the sense that the consequences of them may depend on quality of the involved countries’ systems for governance.

The supply, demand and use of government indicators rest on a set of premises that are sometimes assumed implicitly and sometimes made explicit. 6 important premises are:

1) Governance can be measured.
This implies that it is possible to quantify or categorize differences in governance between countries. This is not obvious. First comes the obvious difficulties in measuring governance. But then there are more profound difficulties. Both the need for governance (and its different dimensions) and the possibility for governance varies between countries. Figure 1, taken from Andvig (2006), serves to illustrate this.

Figure 1. Spheres for transactions.

The figure indicates four categories of transactions in a society’s economy. They belong to four different social spheres. These spheres are present in all societies. These four are the family-friendship sphere, the political sphere, the market sphere and the bureaucratic sphere. All societies have formal and informal rules for which type of transactions that belong to which sphere. These rules are not identical across societies. Therefore, governance cannot be identical across societies. Similarly, good governance may differ between different countries. It is, therefore, not obvious that there is any yardstick for measurement of governance.

Since governance is about many social phenomena the first premise depends on 2)
2) It is possible to measure individual dimensions of governance. Even the most ambitious indicators available do not (implicitly or explicitly) aim at measuring the full and complete phenomenon governance. But figure 1 gives rise to pessimism about the possibility of measuring individual dimensions of governance. The reason is again that different aspects of governance may belong to different spheres of society.

3) Individual governance indicators can be aggregated. It has to be possible to compare good governance for market transactions and bad governance for bureaucracies. This is complicated by itself, and not less so because the sphere for market transactions and the sphere for bureaucracy differ between countries.

4) Governance can be ranked. Most governance indicators assign a numeric value to the indicators. The least demanding way of doing this is to rank countries according to their governance quality. Again figure 1 gives some complicating remarks. If one wants to construct an indicator for the functioning of markets, what dimensions should be included? Should it include black markets? If one wants to measure complexity in the tax system, should complexity be ranked similarly in advanced OECD countries as in poor developing countries?

5) Governance can be scaled. Most governance indicators measure governance quality on a cardinal scale. For instance, on a scale from 1 to 10, it is assumed that the difference between 8 and 9 is similar to the difference between 2 and 3. Premise 4 is often assumed, but many indicators only require premise 3.

6) It is possible to trace changes in governance over time. In fact, several indicators of governance do not depend on this premise. Rather they measure changes in ranking of countries over time. Again figure 1 illustrates some problems. Social change, for instance because of a positive development, or because of globalization, implies that the borders between the spheres in figure 1 are changed. Transition from planned to market economies in the 1990 is one example. Market transactions were introduced on a grand scale in the former Soviet Union and Eastern Europe. It is not a priori possible to denote all the changes as improvements in governance quality.

A seventh premise is that it is possible not only to measure governance, but also to use measures to draw normative inferences about governance. Economists disagree about the impacts of trade policy. Is an average tariff level of 10 per cent better than an average of 20? Does a rule based trade policy always outperform a case-to-case trade policy? These are questions that are hard to answer.

3. Some government indicators
As reviewed above, governance is a wide and broad concept. Its definitions include political and judicial rights, rule of law, absence of corruption and many more aspects of social and economic life. Attempts to measure governance are widespread and a large set of databases, comparing countries by some or many aspects of governance are available. UNDP (2007) gives an overview over some indicators. Arndt and Oman (2006) is another attempt to survey the large number of different indicators available. At third is Williams and Siddique (2007). Some of the most common indicators are composite indicators, constructed by aggregating many individual indicators. Below we describe a small selection of indicators. These were chosen because they are commonly used and referred to. They also represent attempts at measuring different aspects of governance and they represent different types of indicators. In appendix A a list of indicators is given. The list is not exhaustive, but gives an overview of some commonly used indicators. In section 5 the Worldwide Governance Indicators, developed by Daniel Kaufmann, Aart Kray and Massimo Mastruzzi, are presented.

**Freedom House** is a private nonprofit organization founded in 1941. It has a clear political agenda in being a “clear voice for democracy and freedom around the world”. It publishes the survey *Freedom in the World*. Despite their clear political bias in working “to advance the remarkable worldwide expansion of political and economic freedom” they claim that they do not “maintain a culture bound view of freedom”. However, they work under the assumption that freedom for all peoples is best achieved in liberal democratic societies.

The survey covers 193 countries. It does not rate countries’ governance per se, but how freedom is experienced by people and firms in the respective countries. The rating process is based on a checklist of 10 political rights questions and 15 civil liberties questions. Based on this, countries are awarded ratings from 1 (highest) to 7 (lowest) of political rights and civil liberties. Each pair of political rights and civil liberties is averaged to determine an overall status of “free”, “partly free” or “not free”. Also trends in the data are indicated by trend arrows in the tables.

The very aggregated ratings from Freedom House implies that very different countries are ranked equal. From the 2007 edition, for instance, Afghanistan and Turkey are both classified as *partly free*. Russia and Sudan are examples of countries that are ranked *not free*.

The survey (2007) is constructed by the staff of Freedom house by 29 analysts and 16 senior-level academic advisors. The data are therefore constructed by country specialist and not based on peoples’ or firms’ real experiences. The data are available free of charge at [www.freedomhouse.org](http://www.freedomhouse.org).

**The International Country Risk Guide** is constructed by the PRS-group. The PRS-group is privately owned and assesses financial, economic and political risks for about 161 countries. The data provided by the PRS-group comes from assessments and forecasts of country specialists. Country reports are prepared on a quarterly basis and the current level and likely changes of 17 risk components are reported. These include risks
of turmoil, equity restrictions, taxation discrimination, exchange controls, tariff barriers and labour policies. Each of the 17 factors has a range from 0 (low risk and forecast of no change) to 4 (high risk and forecast of more restrictive policies). The 17 factors are used to generate risk profiles for three investment areas: financial transfers, foreign direct investments and exports. The 17 risk values are summed and the resulting total is scaled from 0 (high risk) to 100 (no risk) for each to the three areas. Also a composite risk profile is constructed.

The PRS-group provide their data on a commercial basis and they are not provided free of charge. Some sample data are freely downloadable at PRS’ webpage, www.prsgroup.com.

Transparency International produces the well known Corruption Perception Index, CPI. CPI was first released in 1995, and both the country coverage and the quality of the database has increased since then. The CPI ranks 180 countries by their perceived levels of corruption, as determined by expert assessments and opinion surveys. As the name indicates, the CPI measures perceived (as opposed to real, experienced or actual) levels of corruption. This approach is taken by many governance indicators. The reason is that governance in general, and corruption in particular, is difficult to measure. It is possible to compare the number of prosecutions between countries. But such numbers hardly measure real or experienced corruption since also the quality of prosecutions and the willingness to fight corruption will influence on the result. Other and indirect measures of corruption have also been proposed, as e.g. black market premiums. Such measures will often be hard to collect and will be less comparable between countries.

As mentioned above CPI ranks countries according to perceived levels of corruption. Therefore, changes over time are changes in the ranks of countries, not necessarily the level of corruption. The database cannot be used to estimate trends in global corruption over time nor to assess changes in individual countries’ levels of corruption. Changes in one country’s rank can be due to changes in perceived levels of corruption in this country. But changes can also be the reason of changes in other countries’ rank or to addition of new countries in the database. To assess changes in levels of corruption in individual countries or globally, one has to go to the original databases that are used to construct the CPI.

The CPI is a composite index. It includes information from several sources, most often from surveys of country experts and businessmen. These are both non-residents and residents of the relevant countries. It consists of information taken from 14 sources developed by 12 independent institutions. Countries for which at least three sources are available are included in the CPI. The different sources measure the extent of perceived corruption both in the public and political sector. All the sources provide a ranking of countries. To determine the mean value for a country, a standardization procedure is followed using the ranks of countries. This allows all scores to remain within the bounds used in CPI, between 10 (no corruption) and 0 (widespread corruption). Averaging over several sources will tend to reduce the standard deviation in the sampling. Therefore a
special procedure (a beta-transformation) is performed to increase the spread of the distribution.

The CPI data are also reported with confidence intervals in order to underline the uncertainty with which corruption is measured. The confidence intervals are computed as a function of the different scores by the individual sources. The exact procedure is a bootstrap methodology that allows inferences of the underlying precision of the results. The lower (upper) bound of a 90 per cent confidence interval is determined as the value where 5 per cent of the sample’s means are below (above) this critical value. The accuracy of the confidence interval estimates increases with the number of sources. A discussion of the methodology used to construct CPI is given by Lambsdorff (2007).

The CPI-databases are available free of charge at [www.transparency.org](http://www.transparency.org).

**Global Integrity** is an independent, non-profit organization tracking governance and corruption trends around the world. They produce the *Global Integrity Report* which is a collection of country assessments examining national-level anti-corruption mechanisms in a diverse mix of countries annually. The Report combines qualitative journalism with quantitative data gathering, all generated by in-country experts. The report also contains the Global Integrity Index. The index groups countries into broad bands of performance when it comes to the existence, effectiveness, and citizen access to national-level anti-corruption mechanisms.

The global Integrity Index measures the opposite of corruption and bad governance. The ambition is to assess the access that citizens and businesses have to a country’s government, their ability to monitor its behavior and their ability to advocate for improved governance. Using country teams of social scientists and journalists, reports on the de jure and de facto reality of corruption and anti-corruption mechanisms are developed.

The integrity indicators are used to “score” the institutional framework that exists at the national level to promote public integrity and accountability and prevent abuses of power. The integrity indicators are organized into six main categories and 23 subcategories. The six categories are 1) Civil Society, Public Information and Media, 2) Elections, 3) Government Accountability, 4) Administration and civil service, 5) Oversight and Regulation and 6) Anti-corruption and Rule of Law.

Scores are given for “in law” and “in practice” on a range from 0 to 100 with 0 being worst possible and 100 perfect. The scores for each country are subject to a peer review process for each country. The peer review process is used to adjust scores, and also to construct confidence intervals for each individual country’s score. On the basis of changes in a country’s score as the result of the review the resulting confidence intervals are interpreted as an indication of the precision of the scores.

The Global Integrity Index is based on Global Integrity’s network of national country specialists. For a country to be included in the report, Global Integrity require access to
national experts. For the 2007 report a total of 55 countries were included. These were chosen on the basis of the available budget and an aim of being representative. Global Integrity uses data from Freedom House (see the appendix) to ensure a balanced coverage with regard to basic freedoms and civil liberties. The Global Integrity’s budget is based on donations from private foundations and the World Bank. The index and their annual report are available free of charge at their webpage www.globalintegrity.org.

The Open Budget Project produces the Open Budget Index. This index measures the extent to which budget processes in a sample of 59 countries are open to their citizens. The index, based on answers on a 122 questions questionnaire, rank countries according to whether the national budget processes are open to citizens. Countries are ranked on a scale from 0 to 100 where 0 indicates that the government provides “scant, or no information to citizens” and 100 indicates that it provides “extensive information to citizens”.

The questions are about publicly available information issued by the central government. The questions ask about what occurs in practice, not about legal requirements. Researchers and peer reviewers were asked to provide evidence for their responses. The questions belong to three sections, on availability of budget documents, the budget proposals and the budget process. The last section also assesses the implementation of the budget and auditing procedures after the budget year.

The annual report and the answers to the questions are provided free of charge at the project’s webpage, http://www.openbudgetindex.org/.

The project was initiated in 2002 after a meeting with non-governmental organizations from several countries. The International Budget Project is funded by the Bill and Melinda Gates Foundation, the Ford Foundation, the Open Society Institute (OSI), the Swedish International Development Cooperation Agency (SIDA), and the William and Flora Hewlett Foundation.

The Global Competitiveness Index has been produced annually for the World Economic Forum since 2004. It aims at giving a comprehensive index for measuring competitiveness that takes into account microeconomic and macroeconomic foundations of national competitiveness. The 2007 version of the index covers 131 countries. Competitiveness is defined as the set of institutions, policies and factors that determine the level of productivity of a country. This broad ambition makes the index demanding to construct. The index relies on many indicators and large datasets. The index is constructed from datasets classified into 12 different pillars. These are institutions, infrastructure, macro economy, health and primary education, higher education and training, goods market efficiency, labour market efficiency, financial market sophistication, technological readiness, market size, business sophistication and innovation. The global competitiveness index is therefore not a governance indicator. Rather it is an aggregation of different indicators, of which some, but not all, reflect governance. Other elements of it reflect private sectors, the country’s geographical location (market size) and other factors. It is included here since it is commonly used,
attracts a lot of attention and since parts of it are used to construct other indicators. The index is also constructed partly on the basis of other existing indicators.

The global competitiveness index rests on the assumption that different aspects of competitiveness matter differently in different countries. The researchers who construct the database therefore classify countries into three classes according to their stages of development (factor-driven, efficiency-driven or innovation-driven countries) and weight outcomes from the 12 pillars differently according to which class a country belongs to. This is an interesting feature of this index. As mentioned above, the need for governance varies between countries. The Global Competitiveness Index is the only indicator that takes differing levels of development into account in their rank of countries.

The weights for each type of pillar were constructed on the basis of regressions of GDP per capita on different data, were coefficients were allowed vary for each development stage. As such the index is directly based on the variables’ impact on the variable they are meant to indicate. Other indicators are often criticized for reflecting the same mechanism without being explicit about it.

The index is composed of 113 variables. 79 of these are from a executive opinion survey carried out for the World Economic Forum. The global competitiveness index both ranks countries and produces a score (ranging from 0 (low) to 7 (high)). The scores are constructed so that trends over time can be traced. USA ranks highest on the index with a score (averaged over the variables) of 5,67 and Chad ranks lowest with a score being 2,78.

The global competitiveness index is developed by a group of well-known researchers in development studies and economics. The index is available free of charge at the webpage http://www.weforum.org/. Also documentation is available at the webpage.

**CPIA (Country Performance and Institutional Assessment)** is produced annually by the World Bank for all World Bank borrowers (76 countries). The World Bank has used systematic government assessment since the 1970s. The Bank first focused at macroeconomic performance, and later on expanded its indicators to include several other aspects of governance. Now the CPIA consists of a range of indicators and they are produced to “measure the extent to which a country’s policy and institutional framework supports sustainable growth and poverty reduction and, consequently, the effective use of development assistance” (World Bank, 2007).

Being an official criterion for receiving grants and loans from the World Bank, the CPIA indicators deserve some comment here. The CPIA is constructed on the basis of 16 criteria. Countries receive a score from 0 (bad) to 6 (excellent) for each the 16 criteria. The 16 criteria are grouped in four clusters. These are economic management, structural policies, policies for social inclusion and equity, public sector management and institutions. The overall score for each country is obtained from averaging these indicators. This aggregated score is denoted as the IDA Resource Allocation Index (IRAI). This index is decisive (together with gross domestic product per capita) for
resource allocations from the IDA (The International Development Association). IDA assistance is development assistance (in the forms of loans and grants) to poor countries to help them reduce poverty and achieve the millennium goals.

The scores on each of the individual 16 criteria depend on the level of performance in a given year. World Bank staff evaluates the country’s performance on each criteria and assigns rating. These ratings reflect a variety of indicators, observations and judgment based on country knowledge and relevant publicly available indicators. The process involves two phases. In a benchmarking phase, a sample of countries is rated. Country proposals are reviewed at the regional level and then in a “Bankwide” review process. A similar process is followed for the remaining countries, using the benchmark countries’ scores as guideposts.

The IRAI data and a description of the methodology used are available in the World Development Report. The IRAI data were made public for the first time in 2005. They are now included in World Development Indicators, published annually by the World Bank.

4. The Worldwide Governance Indicators Project

Despite philosophical, theoretical and methodological challenges in measuring governance and aggregating measures, many indicators exist. In this section one of the most ambitious, thorough and coherent indicator is presented.

4.1 Data Construction

The Worldwide Governance Indicators (WGI) project is an ambitious project that aims at aggregating existing sources about governance to construct new and more reliable composite indicators. As such it resembles the TI’s Corruption Perception Index. The WGI data are more ambitious the TI’s CPI since they cover several dimensions of governance rather than just corruption and since they cover more countries. Pioneers behind the WGI project are Daniel Kaufmann, Aart Kray and Pablo Zoido-Lobatón. The indicators are therefore sometimes referred to as the KKZ-indicators. The database is available free of charge at http://info.worldbank.org/governance/wgi2007/. Also a series of working papers and documentation are available at the same address. Several of the working papers are also published in academic journals. The database is widely used, both for policy purposes and in academics.

The database was produced biannually from1996 to 2002 and annually from 2002 onwards. The last available edition (2007) gives estimates up to and including 2006. A point of departure for the project was the large number of existing indicators, developed from many, and often, independent sources. Many of these indicators have been developed for groups of countries or for special dimensions of governance only. The aim of the WGI project is extract as much information as possible from available indicators while not compromising with country coverage nor the quality of the indicators. For the
WGI project therefore, an important task was to develop adequate methods to aggregate existing indicators. A consequence of the methodology developed and used is that it becomes possible to construct confidence intervals for the indicators. This makes their users able to get an impression of how precise the indicators are.

Since the WGI project indicators are among the most carefully constructed and the most widely used, the indictors will be presented in some detail here. Since these indicators are so widely applied, they have also given raise to some criticism. Below a concentrate of this criticism is presented.

The WGI project does not present one aggregate indicator of governance. The project rejects this approach since governance covers so many facets and dimensions of social life. Instead, existing indicators are aggregated into six individual indicators.

The six dimensions of governance are:

- **Voice and accountability (VA)** measures the extent to which citizens in a country are able to take part in political processes. The indicator includes measures about political processes, civil liberties, political rights and independence of the media.

- **Political stability (PA)** combines indicators about perceptions of the likelihood that existing governments will be overthrown by unconstitutional or violent means.

- **Government effectiveness (GI)** measures the ability of the government to ‘formulate and implement sound policies’. This includes indicators of quality of public services, the quality of bureaucracies and competencies of civil services. Focus is on governments abilities to ‘produce and implement good policies and deliver public goods’.

- **Regulatory policies (RP)** is about the policies themselves. This includes measures of incidences of ‘market un-friendly policies such as price controls or inadequate bank supervision, and regulations of areas like foreign trade and business development’.  

- **Rule of Law (RL)** measure the extent to which agents abide the roles of society. Examples include perceptions of crime, effectiveness and predictability of the judiciary and enforceability of contracts.

- **Control of corruption (CC)** measures perceptions of corruption, defined as the exercise of public power for private gains.

These six indicators are the result of a massive aggregation exercise. Hundreds of indicators, taken from 37 data sources produced by 31 different organizations, are used to construct the six indicators. Importantly, not all the 37 sources cover all countries. Some are regional indicators while some cover only a sub sample of countries. One main idea

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2 This makes political neutrality doubtful. Political controversies are very often exactly about the effectiveness of ‘market un-friendly policies such as price controls’. Examples abound. One is the Swedish housing market. Another is public transport. A third is centralized wage bargaining.
behind the WGI project is exactly to broaden the country average by aggregating data that are available for smaller subsamples of countries. The WGI project has contributed substantially to the indicators market through their aggregation procedure. We will briefly review it. The details in the methodology are discussed in Kaufmann et al. (1999 a and b) and a somewhat critical review is given in Arndt and Oman (2007). In Kaufmann et al. 2007, an answer to the criticism is given. Below elements from this discussion are discussed.

The aggregation method used by Kaufmann et al. proceeds in five stages. They start with relevant indicators for each of the six categories of indicators. For instance for Rule of Law 24 individual indicators are used. From these 24 sources, they produce arithmetic averages for each individual source. The resulting averages are therefore indicators from individual sources.

The second stage is a screening procedure of the different sources in order to determine whether the source covers enough countries and countries that are representative enough to qualify as a ‘representative source’.

The third stage is to aggregate the representative sources to a preliminary composite indicators. In this stage the indicators are not aggregated using arithmetic averages but instead with weights depending on the correlation between the indicators from different sources. Those indicators that correlate most with the others receive the highest weight.

In the fourth stage the weights of the remaining sources are determined. This is done by regressing the non-representative indicators on the preliminary composite indicators. This results in estimates of the error variances of these sources. The estimated error variances are then used to determine the weights of these sources. The indicators that correlate the least with composite indicator receive the lowest weight.

The fifth stage is to construct the final indicators based on the weights resulting from stage four.

The WGI indicators are constructed so that the resulting composite indicator has an average, across countries, equal to zero and the standard deviation is equal to one. In fact the indicators are constructed to be a standard normal distribution. This implies that the indicators cannot be used to analyze trends over time, neither globally, for groups of countries nor for individual countries. They can be used however, to analyze ratings between countries and trends for individual countries in ratings over time. The assumed standard normal distribution implies that more countries are concentrated close to the average than at the distribution’s extreme values.

It is worth noting that the resulting indicators aggregate different indicators differently. The weights depend on correlations with the other weights and their coverage. Therefore, different sources receive different weights for different countries. Keep in mind that the number and composition of sources used to construct each indicator for each country

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3 See Arndt and Oman (2006) who give a detailed introduction.
normally differ. It is not straightforward therefore, to recalculate the indicators for observers outside the WGI research community. The weights are reported on the project’s webpage, http://www.govindicators.org/.

An important feature of the WGI indicators is that the constructed weights make it possible to construct confidence intervals around the point estimate. As such the indicators take into account the inherent uncertainty about governance indicators. This reflects the idea that the different sources give an imprecise estimate of the relevant governance dimension. The weighting procedure makes it possible to quantify the uncertainty in the composite indicator. Note that this uncertainty is a result of the numbers of sources and the correlations between these sources. The numeric confidence intervals are therefore constructed from ‘technical’ features of the data and not from detailed analyses about their content of information. We return to this below.

The confidence intervals for the governance indicators are quite broad. This means that the indicators are not very precise. For instance, for the “Rule of Law” indicator there is no statistical difference between a country that receives 0 and on that receives 0.2 (the indicator ranges from about -2.5 to about 2.5 with most countries ranging around zero). One cannot say with certainty that the former performs worse than the second. Kaufmann et al. underline the uncertainty in the indicators. They also show how this limits their use. They give some guidelines about how to deal with uncertainty. First, countries that do not overlap in their confidence intervals can be concluded to have different degrees of governance. Second, there are obvious differences between countries ranking at the top of the distribution and at the bottom. For countries in the mid-range, however, it not possible to determine to which ‘group’ they belong. Third, even if the confidence intervals measures the uncertainty of governance indicators, these quantitative measures are an important strength of the WGI indicators. The point estimates provided by the WGI project are more precise than other point estimates provided. This follows (mathematically) from the use of many sub-indicators. Kraay et al. (1999b) show how their estimated variance increases when the number of sources decreases. Therefore, even if only point estimates are reported for other indicators, statistically these estimates are necessarily less precise than the WGI indicators are.

4.2 Some results

There is no space here to review the results from all the six governance indicators provided in the WGI project. In order to give examples, a limited results are presented.

Figure 2 graphs results from the “Rule of Law” indicator in 2006. The graph is constructed so that countries are sorted in ascending order. Results from the “Rule of Law” indicator are graphed on the y-axis. Together with the results for the indicator, also the 90 per cent confidence intervals are graphed. These are graphed as the vertical lines crossing the point estimates.
The governance indicators from the WGI project are normally distributed with mean zero and a standard deviation of one. Therefore almost all countries’ score lie between -2.5 and 2.5. In the 2006 edition of the WGI, the “Rule of Law” indicator is constructed for 211 countries, that is, for almost all countries in the world. The 2000 edition contained 196 country estimates for this variable. This reflects that the WGI project includes more sources over time and increasing country coverage for many sources.

It is seen from the figure that uncertainty about the point estimates is important. The 90 per cent confidence intervals overlap for countries with very different point estimates. That is, one cannot conclude that a country with an estimated value at the average (zero) has a significantly different quality in “Rule of Law” as compared to a country with a score equal to one half, unless their confidence intervals do not overlap. Overlaps are different for different country pairs.

The differences in the margins of error between countries are the result both of the number of sources per country and differences in the precision of the sources in which each country appears. The importance of the number of sources is illustrated in figure 3.
In that figure, estimated standard deviations for the “Rule of Law” indicator in 2006 are graphed against the number of sources for each country. It is evident that the number of sources for each country is determinant. Countries with equal number of sources also have reasonably equal standard deviations. But also the precision of sources count. This is seen from the horizontal intervals for each number.

Figure 3.

As underlined above, and also by Kaufmann et al. in most of their papers (e.g. Kaufmann et al. 1999a, 1999b and Kaufmann et al. 2004), the WGI indicator cannot be used to trace trends over time. Changes in the indicators over time can be the result of five factors. The first is changes in governance that are reflected in the source variables. Real changes generate changes in the indicators (as they should). The second possible reason for change is that some event causes the perceived governance in a country to change even if there were no change in the real governance quality. This is a source of error that is inherent in perceived governance indicators. The third reason why an indicator change over time is changes in the weights applied to different sources in each period. This may both be the result of changing quality of sources and inclusion of new sources. The fourth reason is changes in the set of sources for a country. The fifth is addition of new countries to the aggregate indicator that rate systematically better of worse than the country in question.

It is a common feature of several governance indicators, in particular composite indicators, that they cannot be used for analyzing trends over time for individual countries or for the world at large. They can, however, be used to analyze trends in time for country rankings. Such changes can be statistically significant or they can be insignificant. Small changes in country rankings cannot be taken as evidence of
significant changes in rankings between countries. Therefore, estimated uncertainty can be used to determine how large changes one needs before one can conclude that governance has indeed changed.

Kaufmann et al. (2004) propose, as a rule of thumb, to focus on changes in governance for countries in which the 90 percent confidence intervals in the two periods do not overlap. They propose this rule also for absolute changes, i.e. for changes independently of rankings.

Figure 4 graphs results for ”Rule of Law” in 2006 and 2000. Countries are graphed according to their position in 2000 and in 2006. Countries above the straight line experienced improvement in the “Rule of Law”-indicator in this period and countries below experienced decline. The main impression from the graph is that country rankings according to the “Rule of Law” indicator are fairly stable. There is a neat correlation between the scores in 2000 and in 2006. The correlation is not perfect, however, and some countries experienced change.

Kaufmann et al.’s rule of thumb is used to identify which countries that experienced significant changes. These are countries for which the 90 per cent confidence intervals in the two years do not overlap. These are a handful of countries only. They are marked by light squares in the figure. It is seen from the table that these countries are not necessarily those that experienced the largest changes in absolute sense. For a country to experience significant change, the absolute change has to be large and the estimated errors in both years have to be small. The countries that experienced significant changes in the indicator “Rule of Law” in this period are listed in table 1. Also the point estimates in the two years, the change in the point estimates and the estimated standard errors are listed.
There is not place here for a discussion about changes in the “Rule of Law” in individual countries. The changes for some of the countries are easy to understand while changes for some of the others are less intuitive. The decrease in Iraq is clearly due to the war. The improvement in Rwanda is obvious. From genocide to relative peace is a clear improvement. The changes for some of the other countries are less easy to understand or readily accept. This implies the decrease for Argentina. Argentina experienced a currency crisis in 2002, and Kaufmann et al. (2004) writes that “Argentina’s recent financial crisis is reflected in strong declines in perceptions of governance across the board”. It is not obvious that the Argentinean currency crisis should influence on all governance aspects. But obviously, the perceptions of them (measured by the indicators) did. Venezuela’s decline in perceived “Rule of Law” is obviously the result of Hugo Chaves’ regime there.
The six governance indicators produced in the WGI project do not only correlate over time. They also correlate with each other. This is showed in table 2. We present data for 2006 only. Note that Governance Efficiency, Regulatory Quality, Rule of Law and Control of Corruption are four indicators that correlate relatively much, while Voice and Accountability and Political Stability do not correlate with the other variables to a similar degree.

Table 2

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<td>VAC</td>
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<tr>
<td>Pol. St.</td>
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<tr>
<td>Gov. E.</td>
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<td>Reg. Q.</td>
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<td>0.6810</td>
<td>0.9513</td>
<td>1.0000</td>
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<tr>
<td>Rule of L.</td>
<td>0.8155</td>
<td>0.8046</td>
<td>0.9405</td>
<td>0.8986</td>
<td>1.0000</td>
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<tr>
<td>Corr.</td>
<td>0.7933</td>
<td>0.7408</td>
<td>0.9458</td>
<td>0.8908</td>
<td>0.9485</td>
<td>1.0000</td>
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Figures 5 and 6 give a visual expression of these correlations. Figure 5 graphs Political Stability and Governance Effectiveness (along the vertical axis) against Voice and Accountability (horizontal axis). Figure 6 graphs Rule of Law and Control of Corruption (vertical axis) versus Regulatory Effectiveness (horizontal axis). Both from table 2 and from the figures it is clear that WGI’s governance indicators correlate with each other, but also that they do provide information about the different dimensions of governance they are meant to measure. This implies that countries not only differ in their governance quality, but also obtain different scores on different indicators.
Figure 5

Political Stability and Governance Effectiveness versus Voice and Accountability

Figure 6

Rule of Law and Control of Corruption versus Regulatory Effectiveness
5 ‘A House of straw, sticks or bricks’? Can we trust governance indicators?

Governance denotes many dimensions of social life. Attempts to measure it have given raise to a wave of indicators that are used for many purposes. The survey in sections 3 and 4 is not exhaustive. Academic, political and commercial interests in governance have become fashionable. Naturally, this has also given raise to a debate on how governance can be measured. We review some elements from the debate.

5.1 Subjective or objective measures?

Both the CPI indicator and the WGI indicator are based on perceptions of governance. The data are collected from many surveys and expert opinions that measures peoples’ perception of governance. For many other purposes, measurement is based on objective criteria and most often, objective criteria are believed to be better sources of information than perceptions.

The reasons why perception based indicators have become so common for governance indicators are two-fold. First objective criteria are hard to collect or they will be too expensive for cross-country studies. Second, available objective data will often be misleading.

Measures of corruption are one good example. Both direct objective data (like number of court cases) or indirect objective data (like black market premiums) hardly give correct measures of corruption. This applies in particular for cross-country, and therefore, cross-cultural, studies.

Another example is Rule of Law. Rule of Law may be very different in two countries having identical sets of laws. Again it is hard to construct ways to compare Rule of Law objectively between countries.

A third example is governance effectiveness. The number of bureaucrats could indicate good governance, but very often it will not.

A fourth is political stability. Williams and Siddique (2007) discuss an example where the United States performed badly because of the number of protest demonstrations about civil rights and the Vietnam War. Many would argue that citizens’ rights and possibilities to demonstrate is a good thing for political stability.

Asking people is one way around these problems. By carefully constructed surveys, perceptions about governance effectiveness or corruption may reflect realities of life better than objective measures.

Naturally, perception based indicators reflect perceptions. Therefore, their reflection of reality depends on whether perceptions reflect reality (this applies even if perceptions are a part of reality and influence on other parts). Perceptions may in some instances change

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4 This subtitle is the title of Andvig (2005) who discuss corruption empirics.
fast and faster than fundamentals and in other instances slow and more slowly than reality.

5.2 Who’s perceptions are measured?

In many governance indicator sources, surveys are based on questions to business people and very often to the “elite” among business people. Often they are representatives from multinational companies. In the composite indicators such surveys are included as sources of information. Many argue that this will necessarily bias the results. Good governance for companies need not be good governance for people. This critique has for instance been raised both toward the Transparency International’s CPI and the WGI indicators. Galtung (2005) writes about the CPI that

“The sample is not only private sector oriented, it is also overwhelmingly male and economically well off. Effectively this means that this most influential of indices ignores the experiences and perceptions of most women, and of the poor and disenfranchised”.

Galtung notes that the biased sample selection is also a major advantage in measuring corruption. If measures of corruption were based on national samples only, they would be more affected by national differences in the level of tolerance for corruption than is the case when sources are also (and mainly) based on international sources.

Kaufmann et al. (2006) answer this type of critique. They have three arguments. Firstly, they note that their composite indicators also rely on national surveys. This is so also for Transparency’s CPI. In the WGI indicators however, national surveys are given very low weights (since they, by construction, do not correlate much with the representative sources used as benchmarks). Secondly, many of the firms included in the cross-country surveys of firms, are small and national. Thirdly, the extent to which the critique is right depends on the extent to which there are differences between perceptions of business people and other people. Kaufmann and his co-authors cite one example where

“The correlation between two of our major cross-country firm surveys is 0.74, and the correlation of these firms surveys with a survey of households in Africa is very similar at 0.7.”

An example can exemplify the rule or the exception, however. Razafindrakoto and Roubaud (2006) provide a different example. They present data from a cross-country survey including 35,000 respondents in several African countries. The survey is complemented with similar questions to 350 experts’ opinions on the same issues. The authors report three important findings. First, the experts overestimate the levels of corruption considerably. Second, the ranking of countries in the experts survey do not reflect the results from the larger population survey. Third, the experts were asked about their beliefs about peoples’ responses. Generally, they did not have the clue about public opinions:
“The experts massively tend to overestimate the population’s level of tolerance of corrupt practices and underestimate the importance it attaches to matters of ‘good governance’.

The contradicting evaluations about sample selection bias in governance indicators, and also in the composite indicators, should serve as a warning: Business communities may fail in their perceptions about grass root reality.

5.3 Political biased indicators?

One consequence of sample selection problems in sources for governance indicators is that it may possible bias the results in certain political directions. This is a serious concern. And is not only a concern because of sample selection problems. It is an inherent concern in the construction and use of governance indicators in general. The reason is that choice of governance systems is political. In section 2 this issue was underlined. Given that one nevertheless accepts that the premises for measuring governance indicators are not politics, the issue whether the existing indicators do reflect political ideologies remain. Kaufmann et al. (2004) test for potential ideological biases. They construct an indicator variable reflecting the political orientation of the government in power in countries around the globe. They categorized regimes as left of centre, centrist and right of center. They used the World Business environment Survey 2000 as a benchmark, assuming this was unaffected by respondent ideology. Thereafter they tested whether other sources systematically reflected left- or rightwing biases. They did find evidence for such a bias in one indicator. This was the Heritage Foundation indicator. For the other sources, there was not systematic bias in any political direction.

This exercise has been criticized. One criticism is that the categorization of regimes into left and right wing may be problematic. Was Saddam Hussein a left or right wing dictator? What about Robert Mugabe?

5.4 Aggregation procedures

Above we reviewed some of the most common composite indicators. In particular we discussed construction of the WGI data. As mentioned in the text, the aggregation procedure used by Kaufmann et al. is based on the assumption that errors in each individual source’s estimates are not correlated with each other. This is an assumption that has been criticized. Note that this criticism is about correlations in the error in the individual sources, not in correlations in their estimates of governance. In fact, correlations in estimates of governance are an important feature that is applied to construct the estimates. Correlations in the errors, on the other hand, constitute a more critical assumption. In order to see this, assume two situations with two sources of information. In the first situation one has two independent but imprecise measures of governance. In this case, aggregating the two means that one gains information. Since the errors are not correlated, the impact of these errors are reduced by using two instead of only source of information. This is one reason why the WGI (and other indicator sources) use several sources. Another reason is that by using more sources, one increases the country coverage.
this case using two instead of one source does not add information at all. The resulting reduction of estimated standard deviations and thus confidence intervals are only mathematical artifacts. Kaufmann et al. (see e.g. 2006 and 1999b) recognize that reality is somewhere in between these two situations. They argue that the correlation in errors between sources is not very large. One reason is that correlations in governance indicators are high even when sources are principally different. They write

“average correlation among our five major commercial risk rating agencies for corruption in 2002-2005 was 0.80. The correlation with each of these with a large cross-country survey of firms was actually slightly higher at 0.81, in contrast with what one would expect if the rating agencies had correlated errors.”

It has been disputed whether this a good answer. One reason is simply that the risk rating agencies could have used the cross-country survey as their source. This hesitation is a typical one since many of the sources used to construct governance indicators use each other as a source. In Arndt and Oman (2006) provide several examples that this is the case for many of the indicators that are used as a source in the WGI project.

Nevertheless, it is obviously right that aggregating sources provide extra information as compared to using only one source. The estimates of uncertainty should therefore not be interpreted as exact, but rather as an indication that governance is not measured exactly. The numeric values of uncertainty should be understood as a mathematical exercise to quantify uncertain measures of governance.

5.5 Herd effects and consequences of surprising events.

This critique is two folded. First, perception based indicators may tend to rate governance in countries that perform well better than countries that perform badly. This phenomenon is referred to as “halo effects”. Kaufmann et al. (2006) argue that such “halo effects” have to be implausible strong in order to account for the observed correlation between governance and per capita income.

Second, some government indicators indicate risks in countries. These could for instance be political risks. Risk is often measured by probability functions that assign probabilities to certain outcomes. Assume a probability function that assign a ten per cent risk of violent political regime change during a period. Assume further that such as regime change occur, but that no other dimensions of governance change. Will the risk perception change? Will perceptions of other dimensions of governance change? Will perceptions of risk in countries being similar to the country in question change? It is certainly likely that the answer to the above questions is ‘yes’. But by considering the questions, it is obvious that ‘no’ also could be an answer.

There has been a debate in the literature whether ‘recent events influence more than they should on countries’ scores on governance indicators.

5.6 Do estimates of standard deviations really measure uncertainty?
Look at figure 2. In that figure the 90 per cent confidence intervals are graphed as vertical lines crossing the point estimates. Note that there is no tendency that these confidence intervals decrease with the level of “Rule of Law”. A natural hypothesis however, would be that uncertainty about the quality of governance should decrease with the quality of governance. One consequence of good governance should be good information about how good governance is. This is not reflected in figure 2. Nor is it reflected in any of the other five indicators provided by the WGI project.

This is a consequence of how the confidence intervals are constructed. They vary according to the number of sources included for each country and how the different sources correlate with each other. But as such, one can question whether it really is uncertainty about governance that is measured.

5.7 Transparency

Governance indicators have been criticized for lack of transparency for mainly three reasons. The first is that some indicators rely on sources that are not publicly available. This was the case with the World Banks CPIA indicators. They were made public from 2005 onwards only. But their construction is still not transparent since they rely on a few country experts’ opinions. So does many of the sources for the composite indicators.

The second reason for the criticism is that their construction is complicated. The regression and weighting techniques used in for instance the WGI project are hard to understand even for trained persons. The wide use of perception data depends on survey for which question design and sample selection are important. Answers do depend on subjective opinions and the surveys cannot be replicated.

The third reason is the use of single numbers to convey the complex nature of governance. This has been discussed above.

6. Use of governance indicators

Three types of users are discussed. These are use by the business community, aid donors and the academic community.

6.1 Investors

The business community makes intensive use of governance indicators. Many of the indicators are constructed in order to serve the business community. In recent years international investments have increased considerably. These are both foreign direct investments (in which investors has direct control over an enterprise), portfolio investments (cross border purchase of stock, bonds and securities) and international commercial bank loans. All the three types of investments are sensitive to different dimensions of governance.
Foreign direct investments typically represent long-term commitments. For this type of investors, political stability, rule of law, the quality of the judiciary and protection of property rights are important. For multinational firms, access to information about such aspects of governance is important. Many of the indicators listed in the appendix are used to assess business potential in countries.

Portfolio investments are often speculative investments. That is, investors invest in order to benefit from price changes in their portfolio more than the returns from these objects. Portfolio investments are therefore often shortsighted. This makes such investments very sensitive to sudden information. It is of vital importance for investors to be able to evaluate whether new information reflects changing “fundamentals” or short-run fluctuations. Governance indicators are an important tool for such investors. Country risk ratings have increasingly made use of broader dimensions of governance indicators than the traditional ‘sovereign risk’ assessment that have always been used.

It is clear from the above that governance indicators that influence on investors’ behavior can be very influential. They may also tend to strengthen the “halo effects” of such indicators. The 1997 crisis in East Asia was not expected. Several of the East Asian countries ranked high on country risk indicators. After the crisis, these countries’ rankings fell. But their governance had, if anything, probably improved.

6.2 Aid donors

Aid donors traditionally paid little attention to governance quality. As mentioned in section 1, it was not before the 1990s that the World Bank started focusing on, for instance, corruption.

The World Bank’s use of CPIA was described above. CPIA has now been published and is available as part of World Development Indicators. This indicator is used by the World Bank as a criterion for the bank’s lending policy. Arndt and Oman (2006) subscribes this change to criticism that the bank’s policy was not transparent.

Galtung (2005) reports that a number of donors have used Transparency International’s CPI as an instrument in aid allocation between countries. Though very often not used as a direct and concrete aid condition, impressions of corruption in recipient countries are obviously important for donors. Galtung criticizes this practice. As discussed below, however, case by case review of governance indicators together with use of other types of information can make a lot of sense.

The United States use the WGI indicators in the recent Millenium Challenge Account (MCA). MCA relies on composite indicators to determine the eligibility of recipients. 16 indicators are used, of which five are from the WGI project (Arndt and Oman, 2006). Countries that score below the median on control of corruption indicator are excluded. This runs clearly against the advice from Kaufmann and his co-authors and against the logic in the data construction. A country just below the median is not statistically
different from at country just above it. As mentioned above, the indicators come with methodological advices on how to discriminate between countries. The MCA allocation mechanism does not take this into account.

It is natural, legitimate and sound that donors want to feel convinced that their aid is used effectively and in the ways it is intended. It may also be a prerequisite to preserve taxpayers support for developing aid. Therefore, use of governance indicators by donors is positive and should be encouraged. Impressions about governance quality should not be based on indicators taken from large cross-country databases alone. These databases can serve as useful starting points. They should be complemented with additional information that is better suited to shed light on the assistance projects donors want to initiate or manage.

6.3 Academic debates – is governance indicators a measure of our ignorance?

In a famous article, Moses Abramovitz (1956) denoted the residuals from growth regression a measure of our ignorance. This residual is the result of a decomposing of economic growth into contributions from capital accumulation and use of labor (and other raw materials). The residual is what is “left” when contributions from capital and labour are taken into account. The residual has been an important source of motivation for growth theorists who want to detect the real engines of economic growth. It is now widely accepted that technological progress is one such engine of growth. However, in recent years institutions, property rights, control of corruption, rule of law etc have gained increased attention. Rodrik (2004) writes:

“There is now widespread agreement among economists studying economic growth that institutional quality holds the key to prevailing patterns of prosperity around the world. Rich countries are those where investors feel secure about their property rights, the rule of law prevails, private incentives are aligned with social objectives, monetary and fiscal policies are grounded un macroeconomic institutions, and citizens have recourse to civil liberties and political representation. Poor countries are those where these arrangements are absent of ill-formed”.

There are indeed many studies that support Rodrik’s words. Various dimensions of governance correlate neatly with the world income distribution. Three examples are:

Kaufmann et al. (1999a) report a wide set of correlations of their governance indicators and different development indicators. All six correlate positively and significantly with per capital incomes, negatively and significantly with infant mortality and positive and significant with adult literacy.

Hall and Jones (1999) follow in the growth accounting tradition. They decompose contributions to income per capita from differences in human capital, physical capital and productivity. They hypothesize that differences in productivity are related to differences in social infrastructure between
countries. They find near association between their measure of social infrastructure and output per worker in a cross-section of 127 countries.

Mauro (1995) find that corruption correlates with growth though effects on investments. The effect is significant and large.

There are many other studies that could be mentioned. Williams and Siddique (2007) provide an overview. They cite 85 different studies that relate governance variables to different economic performance variables. There is no place here for reviewing the literature.

Two sub topics will be mentioned here.

The first is indirect effects of governance on economic performance. In many growth studies it is assumed that variables enter as independent and partial explanations for economic performance. Very often interaction effects are more important.

An important finding has been that resource rich countries tend to have lower growth than countries that do not possess natural resources. This has been documented in Sachs and Warners (1995 and 1997) and also in other contributions. Mehlum et al. (2006) have investigated the role of institutions for this finding. They find that the correlation between growth and resource abundance is due to bad institutions. In countries with well-developed institutions resource rich countries do not tend to grow slowly. Mehlum et al. theorize that good institutions reduce the tendency for unproductive rent grabbing activities. They also hypothesize that this is particularly important in resource abundant countries since there is more to grab when valuable resources are available.

Stensnes (2006) studies the impact of trade liberalization and growth. There is growing consensus that trade is good for growth. The literature on these issues has been hampered by some uncertainty. Is it liberal trade policies, market access, export performance or countries’ ability to handle trade liberalization that matters? Stensnes find that institutional quality is an important interaction variable with liberal trade policy. Countries with good institutions seem to benefit more from trade than countries with weak institutions. Stensnes discuss whether this could be a result of better management of conflicts of interest in countries where institutions are strong.

Neeman et al. (2006) find that corruption hampers growth, but that this relationship is valid in open economies only. For closed economies, they find no such relations. They report that it is primarily financial openness that matters, not trade or barriers to trade.

The second sub-topic has attracted more attention. This is the endogeneity problem. Do good institutions cause growth or does growth cause good institutions? Research on growth and governance has strived with problem. Some dimensions of governance have been regarded as a luxury good that only rich countries can afford. Democracy and freedom of the press are often cited examples. How do we find out in which direction the causation runs?
Mauro (1995) and Acemoglu et al. (2001) are two important examples of how these problems can be approached. They use a two step procedure to find the effect of institutions on growth.

They accept the hypothesis that good institutions foster growth and that growth foster improved institutions. The first step therefore is to find variables that correlate with institutions but that cannot correlate with growth except for the indirect influence through institutions. Both use historical variables as such ‘instruments’ for institutions.

Mauro studies the impact of corruption. He tests the influence of the historical ethnic composition on corruption and finds a positive correlation. In the second step he regress growth on this the ‘computed’ corruption effect. Mauro finds a negative effect of corruption by means of this procedure. He also test the same line of thought based on countries colonial history.

This is also what Acemoglu et al. test for, but in a different way. They use data on settler mortality in colonies. They assume that institutions in colonies were designed differently according to whether settler mortality was high or low. Where it was low, institutions were designed to support the settlers. Were it was high; institutions were designed to rob the colony for natural resources. They find that these indirect measures for institutional quality influence on growth performance in former colonies.

Despite much empirical evidence and many papers that conclude of a positive causation running from governance to development and growth, there is no unanimous agreement. Arndt and Oman (2005) conclude their empirical study that one should look for heterogeneity of mechanisms. They write: “Heterogeneity refers to the fact that the relationship between growth and governance may differ significantly from one country to another in ways that our models do not capture. For example, the same improvement in quality of Rule and Law may raise per capita GDP significantly more in one country than in another, ceteris paribus. As we have noted, several studies have indicated that there are important interaction effects between governance and other variables that influence on development.

Gleaser et al. (2004) conclude differently. From their study, they conclude that “We find that most indicators of institutional quality used to establish the proposition that institutions cause growth are constructed to be conceptually unsuitable for that purpose. (The evidence) …suggest that a) human capital is a more basic source of growth than are the institutions, b) poor countries get out of poverty through good policies, and c) subsequently improve their political institutions.

Thus, despite overwhelming evidence of positive correlations between income per capital and institutions, there is not agreement about the direction of causality. My reading of the literature, however, points toward a growing consensus that governance matters. More work is needed in order to find, empirically and theoretically, the exact ways and under what conditions different types of governance stimulates growth.
7. Concluding remarks

The above selective review is in line with findings in studies. Governance matters. Governance correlates with countries’ performance in a large set of social and economical phenomena. This cannot come as a surprise given the very wide definitions of what governance is. Governance denotes how a society is organized. Therefore, it may be tautological to question whether it matters.

Also, there is a two-way causation. Good governance stimulates development but growth also increases a society’s possibilities to build institutions for good governance.

As the research by Mauro, Acemoglu et al. and others indicate however, governance is a prime factor behind growth. Use of instrumental variables methods has indicated that governance indicators do have independent explanatory power for economic development.

Findings that governance matters abound. The literature is also rich on studies of how governance matters. An interesting set of findings is that governance is important for conflict resolution, whether conflicts are caused by trade liberalization, resource abundance or other types of changes.

Governance indicators have become fashionable. Is their frequent use justified? Does it make sense to make use governance indicators in evaluations of countries’ performance? Are they useful tools for investment decisions and for policy design? In their “User’s guide”, UNDP proposes three golden rules for users of governance indicators. These are:

a) Use a range of indicators, not only one governance indicator. A single indicator which captures the subtleties of national situations, in a manner which enables global, non-value laden comparison does not exist.

b) Use an indicator as a first question, not the last. Scores on a governance indicator cannot reveal all important aspects of governance in a society.

c) Understand an indicator before you use it. Governance indicators, in particular the advanced composite indicators based on perception data, are complicated.

The first advice reflects the very broad definition of governance and therefore limitations in indicators for it. Governance denotes many types of social organization. We have underlined above that ‘good’ ways to organize society depends on the society in question, its development levels, its history and culture. In addition, policy, values and ideology necessarily influence on judgments about good governance. The more aggregated an indicator is, the more it will depend on such subjective criteria. One reason for this is that aggregation also implies weighting. How should one weigh freedom of the press as compared to protection of property rights?
The second advice is important when evaluating single countries. An indicator cannot reveal reality in a country. The potential success of an investment or development assistance project can not be decided from looking at country scores on indicators. A look at country scores can however, be important supplementary information.

As underlined in section 5.7 above, a problem with many governance indicators is that their construction is not transparent. Some of the composite indicators make use of not readily available data. Some also rely on complicated methodology.

There is by now a good supply of government indicators. Their coverage of countries and governance elements differ. So do their quality. This makes it demanding using them. But their many and very different drawbacks should not be an excuse not to use them.

References


Appendix

World Bank’s income classifications.

Analytical Classifications
(presented in World Development Indicators)

<table>
<thead>
<tr>
<th>Income Category</th>
<th>Lower Bound</th>
<th>Upper Bound</th>
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<tbody>
<tr>
<td>Low income</td>
<td>&lt;= 875</td>
<td>&lt;= 905</td>
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<tr>
<td>Lower middle income</td>
<td>876-3,465</td>
<td>906-3,595</td>
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<tr>
<td>Upper middle income</td>
<td>3,466-10,725</td>
<td>3,596-11,115</td>
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<tr>
<td>High income</td>
<td>&gt; 10,725</td>
<td>&gt; 11,115</td>
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Appendix

<table>
<thead>
<tr>
<th>Name and availability</th>
<th>Coverage</th>
<th>Description</th>
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<tbody>
<tr>
<td>Afrobarometer surveys, <a href="http://www.afrobarometer.org">www.afrobarometer.org</a></td>
<td>12 African countries</td>
<td>Mass survey that measures peoples’ attitude on democracy and economic conditions in Afrika</td>
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<tr>
<td>Freedom House Annual Survey of Freedom,</td>
<td>193 countries all over the world</td>
<td>Scores for political rights, civil liberties and a combined freedom index.</td>
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<td><a href="http://www.freedomhouse.org">www.freedomhouse.org</a></td>
<td></td>
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<tr>
<td>Bribe Payers Index, <a href="http://www.transparency.org">www.transparency.org</a></td>
<td>21 countries</td>
<td>Survey that ask respondents to rate the bribe paying behavior of companies in developing countries.</td>
</tr>
<tr>
<td>Business Environment and Enterprise Performance Survey</td>
<td>22 countries in Eastern Europe, former USSR and Turkey</td>
<td>Survey of 400 firms about governance obstacles to business development.</td>
</tr>
<tr>
<td>Cingranelli-Richards Human Rights Database</td>
<td>161 countries</td>
<td>Database of governments’ respect for human rights.</td>
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<tr>
<td><a href="http://www.humanrightsdata.com">www.humanrightsdata.com</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commitment to Devlopment Index, <a href="http://www.cgdev.org">www.cgdev.org</a></td>
<td>21 OECD countries</td>
<td>Attempts at measuring the extent to which rich countries influence on development.</td>
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<tr>
<td>Corruption Preception Index,</td>
<td>180 countries</td>
<td>Measures perceptions about the extent of</td>
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<tr>
<td>Dataset Name</td>
<td>Source Code</td>
<td>Countries</td>
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<td>-----------</td>
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<tr>
<td>East Asia Barometer</td>
<td><a href="http://www.globalbarometer.org">www.globalbarometer.org</a></td>
<td>8 East Asian countries</td>
</tr>
<tr>
<td>Electoral Quotas for Women Database</td>
<td><a href="http://www.quotaproject.org">www.quotaproject.org</a></td>
<td>Continuously updated</td>
</tr>
<tr>
<td>Election Process Information Collection</td>
<td><a href="http://www.epicproject.org">www.epicproject.org</a></td>
<td>60 countries</td>
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<tr>
<td>Eurobarometer</td>
<td><a href="http://europa.eu.int/comm/public_opinion">http://europa.eu.int/comm/public_opinion</a></td>
<td>EU member states and candidate countries</td>
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<tr>
<td>Gender Empowerment Measure</td>
<td><a href="http://www.undp.org">www.undp.org</a></td>
<td>70 countries</td>
</tr>
<tr>
<td>Global Accountability Report</td>
<td><a href="http://www.oneworldtrust.org">www.oneworldtrust.org</a></td>
<td>Organisations, such as World Bank, WTO and the UN and transnational companies, are covered</td>
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<tr>
<td>Global Barometer Survey Network</td>
<td><a href="http://www.globalbarometer.org">www.globalbarometer.org</a></td>
<td>55 countries</td>
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<tr>
<td>Worldbank Governance Indicators</td>
<td><a href="http://www.worldbank.wbi/governance">www.worldbank.wbi/governance</a></td>
<td>199 countries</td>
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<tr>
<td>Growth Competitiveness Index</td>
<td><a href="http://www.weforum.org">www.weforum.org</a></td>
<td>131 countries</td>
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<tr>
<td>Human Rights Indicator</td>
<td><a href="http://www.humanrights.dk">www.humanrights.dk</a></td>
<td>150 + countries</td>
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<tr>
<td>Index of Economic Freedom</td>
<td><a href="http://www.heritage.org">www.heritage.org</a></td>
<td>161 countries</td>
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<td>Journalists Killed Statistics</td>
<td><a href="http://www.cpi.org">www.cpi.org</a></td>
<td>Global</td>
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<td>Media Sustainability Index</td>
<td>20 European and</td>
<td>5 aspects of press</td>
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<td><strong>Website</strong></td>
<td><strong>Country &amp; Policy</strong></td>
<td><strong>Details</strong></td>
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<tr>
<td><strong><a href="http://www.irex.org">www.irex.org</a></strong></td>
<td>Eurasian countries freedoms</td>
<td>Business-people are asked about 5 aspects of economical freedom.</td>
</tr>
<tr>
<td><strong>Opacity Index</strong>&lt;br&gt;www.opacity-index.com</td>
<td>35 countries</td>
<td>Measures constraints faced by politicians to change a status quo.</td>
</tr>
<tr>
<td><strong>Political Constraint Index</strong>&lt;br&gt;<a href="http://www.management.wharton.upenn.edu/henisz/">http://www.management.wharton.upenn.edu/henisz/</a></td>
<td>234 countries</td>
<td>Assessment of regime characteristics at point in time.</td>
</tr>
<tr>
<td><strong>Polity IV Countries Report</strong>&lt;br&gt;www.cidcm.umd.edu/inscr/polity/index</td>
<td>160 countries</td>
<td>Assess mechanisms that prevent abuses of public power.</td>
</tr>
<tr>
<td><strong>Global Integrity Index</strong>&lt;br&gt;www.globalintegrity.org</td>
<td>55 countries</td>
<td>Per cent and number women in Parliament.</td>
</tr>
<tr>
<td><strong>Women in National Parliaments Statistical Achieve</strong>&lt;br&gt;www.ipu.org/wmn-e/world.htm</td>
<td>189 countries</td>
<td>Data on 6 aspects of governance and changes over time.</td>
</tr>
<tr>
<td><strong>World Governance Assessment</strong>&lt;br&gt;www.odi.org.uk</td>
<td>15 countries</td>
<td>Rank countries according to perceived freedom of the press.</td>
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<td><strong>World Press Freedom Ranking</strong>&lt;br&gt;<a href="http://www.rsf.org/article.php3?id_article=24025">http://www.rsf.org/article.php3?id_article=24025</a></td>
<td>169 countries</td>
<td>Multicountry surveys on several topics from representative samples of people.</td>
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<tr>
<td><strong>World Value Survey</strong>&lt;br&gt;www.worldvaluessurvey.org</td>
<td>65 countries</td>
<td>Assessments of 17 risk components of political and commercial type.</td>
</tr>
<tr>
<td><strong>Open Budget Project</strong>&lt;br&gt;www.openbudgetindex.org</td>
<td>59 countries</td>
<td>16 criteria in 4 clusters used to assess countries’ policies.</td>
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<tr>
<td><strong>CPIA, included in World Development Report.</strong></td>
<td>76 IDA countries</td>
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