

Governance Matters

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Six new aggregate measures capturing various dimensions of governance provide new evidence of a strong causal relationship from better governance to better development outcomes.

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Summary findings

In a cross-section of more than 150 countries, Kaufmann, Kraay, and Zoido-Lobaton provide new empirical evidence of a strong causal relationship from better governance to better development outcomes. They base their analysis on a new database containing more than 300 governance indicators compiled from a variety of sources. They provide a detailed description of each of these indicators and sources. Using an unobserved components methodology (described in the companion

paper by Kaufmann, Kraay, and Zoido-Lobaton, "Aggregating Governance Indicators," Policy Research Working Paper 2195), they then construct six aggregate indicators corresponding to six basic governance concepts: voice and accountability, political instability and violence, government effectiveness, regulatory burden, rule of law, and graft. As measured by these indicators, governance matters for development outcomes.

This paper — a joint product of Macroeconomics and Growth, Development Research Group; and Governance, Regulation, and Finance, World Bank Institute — is part of a larger effort in the Bank to study the causes and consequences of governance for development. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Diane Bouvet, room G2-136, telephone 202-473-5818, fax 202-334-8350, Internet address dbouvet@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://www.worldbank.org/html/dec/Publications/Workpapers/home.html>. The authors may be contacted at dkaufmann@worldbank.org, akraay@worldbank.org, or pzoidolobaton@worldbank.org. October 1999. (60 pages)

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1. Introduction

In recent years there has been a surge of interest in the consequences of governance and misgovernance for development. This has been accompanied by a proliferation of data measuring subjective perceptions of various aspects of governance. In this paper, we describe a new governance database containing over 300 such governance measures compiled from a variety of sources.¹ We provide a detailed description of each of these indicators and sources, and construct six aggregate indicators corresponding to six fundamental governance concepts. We conclude with new empirical evidence that governance matters, in the sense that there is a strong causal relationship from good governance to better development outcomes such as higher per capita incomes, lower infant mortality, and higher literacy.

In order to organize our data collection and dissemination efforts, we require a working definition of governance itself.² We define governance broadly as the traditions and institutions by which authority in a country is exercised. This includes (1) the process by which governments are selected, monitored and replaced, (2) the capacity of the government to effectively formulate and implement sound policies, and (3) the respect of citizens and the state for the institutions that govern economic and social interactions among them.

The focus of our data collection effort is a set of indicators which measure subjective perceptions regarding the quality of governance in different countries. Our data are drawn from two types of sources: polls of experts, which reflect country ratings produced by commercial risk rating agencies and other organizations, and cross-country surveys of residents carried out by international organizations and other non-governmental organizations. We do not attempt to compile or present the wide array of available quantitative and descriptive data on cross-country differences in political and social institutions.³ While these are certainly important determinants of the cross-

¹ Pending appropriate authorization from original sources, we plan to have the database itself ready for dissemination on the Web late in 1999.

² There does not appear to be a single accepted definition of governance. Our definition of governance is in part motivated those suggested by the Institute for Governance, IDEA, and the IMF.

³ A database of such objective institutional indicators is currently being compiled as a joint effort by Phil Keefer (World Bank), Robert Bates (Harvard University), and David Epstein and Sharyn O'Halloran

country differences in the quality of governance, our focus here is limited to measuring the perceptions of interested parties -- residents of a country, entrepreneurs, foreign investors, and civil society at large -- regarding the quality of governance in a country. Although this kind of data is inherently subjective, there are several reasons why it is useful in measuring governance. First, for many issues such as the prevalence of corruption, objective data is almost by definition rather difficult to obtain. There are few alternatives to subjective indicators if one wishes to measure these aspects of governance. Second, perceptions of the quality of governance may often be as important as objective differences in institutions across countries. While a country may nominally enjoy a set of sound institutions according to certain standards, the confidence of residents of a country in these institutions is also required if they are to contribute to good governance. Third, we have found in other work that subjective perceptions can have significant explanatory power for future economic outcomes.⁴

We use our definition of governance to organize a subset of the governance indicators into six clusters. We summarize two key aspects of the process by which those in authority are selected and replaced with clusters labelled "Voice and Accountability", and "Political Instability and Violence". We capture the capacity of the state to implement sound policies with two clusters we refer to as "Government Effectiveness" and "Regulatory Burden". Finally, two clusters labelled "Rule of Law" and "Graft" capture the respect of citizens and the state for the rules which govern their interactions. For each of these six clusters, we use the procedure laid out in Kaufmann, Kraay and Zoido-Lobaton (1999) to construct aggregate governance indicators. The advantage of these aggregate indicators is that they span a much larger set of countries than most individual indicators, permitting cross-country comparisons of between 155 and 173 countries, depending on the aggregate. More important, the aggregation method we use provides quantitative measures of the precision of both the aggregate governance indicators and their components, allowing formal statistical testing of hypotheses regarding cross-country differences in governance along these dimensions.

(Stanford University), in an effort coordinated by the Center for International Development at Harvard University.

⁴ In the context of the East Asian financial crisis, Kaufmann, Mehrez and Schmukler (1999) find that investor perceptions of future financial instability had significant explanatory power for future actual volatility, over and above available macroeconomic data.

There is a growing empirical literature documenting the relationship between indicators of various aspects of governance and economic outcomes.⁵ Using the six aggregate governance indicators described above, we contribute to this literature by providing new empirical evidence of a strong causal relationship from improved governance to better development outcomes. Following the approach of Hall and Jones (1999), we estimate a series of very parsimonious regressions of the log-level of per capita income on each of the six aggregate governance indicators in turn. We correct for reverse causation, omitted variable bias, and measurement error in the governance variables, by using the shares of the population speaking European languages as instruments. We find that governance matters a great deal for economic outcomes. In particular, a one-standard deviation increase in any one of our governance indicators causes between a two-and-a-half and four-fold increase (decrease) in per capita incomes (infant mortality), and a 15 to 25 percent increase in literacy. Tests of overidentifying restrictions and summary statistics of the explanatory power of the first-stage regressions provide support for the validity of this modelling strategy.

The remainder of this paper proceeds as follows. Section 2 briefly describes the governance database, with the details of each source of data and each governance measure relegated to a lengthy Appendix 1. Section 3 summarizes the components of each of the six governance aggregates and explains the aggregation procedure. The details of the composition of each aggregate are presented in a series of tables in Appendix 2. Section 4 contains new empirical evidence on the relationship between governance and development outcomes.

⁵ This literature includes Mauro (1995) on the effects of corruption on economic growth and investment; Loayza (1996) on the determinants of the unofficial economy; Ades and DiTella (1996) on the causes and consequences of corruption; Knack and Keefer (1997) on the importance of institutions for economic growth; Tanzi and Davoodi (1997) on corruption and public investment; Wei (1997) on the effects of corruption on FDI; Rodrik (1997) on the role of institutions in the success of East Asia ; Johnson, Kaufmann and Zoido-Lobaton (1998) on the effects of corruption on the unofficial economy; Hall and Jones (1999), on the relationship between levels of per capita income and a measure of what they call "social infrastructure", and Chong and Calderón (1999) on the Granger-causality between institutions and economic growth.

2. The Governance Database

We have compiled a large number of governance measures from a variety of sources into a governance database. These different sources produce indicators of a wide range of concepts relating to governance, using different techniques, and covering different sets of countries. Table 1 presents the sources of governance data included in the database. These include international organizations, political and business risk rating agencies, think tanks, and non-governmental organizations. In this section, we provide an overview of some of the key features of these sources. Appendix 1 presents a detailed description of each of these sources.

We classify sources of governance data along two dimensions: (1) according to their “nature”, i.e. the techniques they employ to measure governance; and (2) according to their “coverage”, i.e. the extent to which the set of countries covered by each indicator is representative of the world as a whole.

With respect to their “nature”, sources are either polls of experts or cross-country surveys of firm managers or citizens in general. Measures based on polls of experts represent consensus ratings agreed upon by a small number of country, sector, and regional experts convened by the reporting organization. Typically, country analysts produce an initial assessment for each country based on publicly-available information and their direct knowledge of the country. For most of the sources we report, these assessments are guided by a checklist of specific issues which analysts take into consideration when providing their initial ratings. For all sources where we were able to obtain this information, we report the checklists underlying the ratings. These initial ratings are then reviewed by a panel of regional and sectoral experts, who determine the final rating for each country. In addition to providing quality control on the initial assessments, the purpose of this final stage is to improve the cross-country comparability of the ratings by ensuring that countries are benchmarked appropriately.

Indicators based on surveys present averages by country of the responses of a large number of respondents to a variety of questions relating to governance. Typically, survey respondents are asked to rate aspects of governance on a categorical scale. The sampling frame of the surveys we use varies. Some sources focus on the opinions of

the business community, others focus on the opinions of expatriates, and some are broad-based surveys of citizens.

The two types of sources of governance data each have their advantages and disadvantages. The main advantage of polls of experts is that they are explicitly designed for cross-country comparability, and considerable effort is placed in the benchmarking process which ensures this. However, the difficulties with such measures are also clear. Typically they are based on the opinions of only a few experts per country, and the quality of the country ratings depends to a great extent on the knowledge of experts regarding the countries they are assessing. The ratings are particularly prone to two types of feedback: countries with good economic outcomes may be more likely to receive favourable ratings, and country rankings by other organizations are frequently an input into the rating process of each organization. Country ratings may also be affected by the political or ideological agenda of the organization producing the ratings. Despite these difficulties, we believe that there are at least two reasons to think that on average, such sources provide valuable information on governance. First, we find that the indicators produced by such organizations generally correlate strongly with measures based on surveys of residents and entrepreneurs. Second, we find the fact that commercial rating organizations such as EIU, DRI and PRS are able to consistently sell their assessments to commercial subscribers for considerable fees to be convincing evidence that these sources are in fact producing useful information.⁶

The advantage of surveys is that they reflect the opinions of a larger number of respondents that are more closely connected with the countries they are assessing. Nevertheless, they suffer from two disadvantages. First, survey questions can be interpreted in context- or culture-specific ways. For example, a response regarding the prevalence of "improper practices" is coloured by country-specific perceptions of what "improper practices" are perceived to be. This will hinder the cross-country comparability of responses to otherwise identical questions.⁷ Second, cross-country

⁶ For example, as of May 1999 an annual subscription to EIU's Country Risk Service costs \$625 US per year, an annual subscription to PRS's International Country Risk Guide on CD-ROM costs \$4500 US per year.

⁷ A related problem is that residents of particular countries may have a broad-based predisposition to overstate or understate governance problems in that country (see Kaufmann and Zoido-Lobaton (1999) and Kaufmann and Wei (1999)).

surveys relating to governance are very costly to design and implement, and as a result typically cover a much smaller set of countries than polls of experts.

Sources of governance data also vary with respect to the sample of countries they cover. A number of sources cover a very large sample of developed and developing countries (EIU, DRI, HFWSJ, PRS and WDR), while others cover very narrowly-focused samples of countries (PERC for Asia, CEER and FHNT for transition economies). Some sources cover primarily developed countries but also include major developing countries (WCR, GALLUP, BERI). Since there is a strong positive association across countries between governance and per capita incomes, this difference between sources makes it difficult to compare indicators from sources which cover sets of countries with very different income levels. Similarly, there may be regional differences in governance which hamper comparisons across sources. For example, it is not clear how to compare a governance rating based only on transition economies with one based on a broad set of countries. As discussed in our companion paper (Kaufmann, Kraay and Zoido-Lobaton (1999)), the methodology we use to construct aggregate governance indicators takes these differences in country coverage into account. Users of the governance database are also encouraged to keep this consideration in mind when comparing information from different sources.

In order to distinguish between indicators according to the representativeness of their country coverage, we construct a simple index which measures differences between the distribution of countries across income and regional classifications and the corresponding distribution of all countries in the world. In particular, we divide the world into a two-way classification by region and income, following the World Bank's 1998 World Development Report. For each of the sources of governance data, we report one-half of the sum of absolute values of the deviations between the share of countries in each of the 45 categories (five income categories x nine regions) in that source and in the world as a whole. By construction, this measure ranges from zero to one, with low values indicating more representative indicators. We report this number in the fifth column of Table 1. The six indicators covering the largest number of countries (DRI, EIU, FH, HFWSJ, PRS and WDR) are substantially more representative according to this measure than the others, with a value of this index of less than 0.25. We refer to these as representative indicators, and the remainder as non-representative indicators.

3. Aggregate Governance Indicators

In this section, we organize a subset of the governance indicators into six clusters corresponding to six basic aspects of governance, and describe how these indicators can be combined into aggregate governance indicators. In Appendix 2, we present six tables which identify the specific components of each governance cluster with reference to the tables describing sources in Appendix 1. The aggregate governance indicators described here are based on data for 1997 and 1998.⁸ We stress at the outset that the classification of indicators into clusters is not intended to be definitive. Rather, it reflects our own views of what constitutes a useful and interesting organization of the data that is consistent with prevailing notions of governance.⁹

Governance Clusters

The first two governance clusters are intended to capture the first part of our definition of governance: the process by which those in authority are selected and replaced. We refer to the first of these as “Voice and Accountability”, and include in it a number of indicators measuring various aspects of the political process, civil liberties and political rights. These indicators measure the extent to which citizens of a country are able to participate in the selection of governments. We also include in this category three indicators measuring the independence of the media, which serves an important role in holding monitoring those in authority and holding them accountable for their actions.

The second governance cluster is labelled “Political Instability and Violence”. In this index we combine several indicators which measure perceptions of the likelihood that the government in power will be destabilized or overthrown by possibly unconstitutional and/or violent means. This index captures the idea that the quality of governance in a country is compromised by the likelihood of wrenching changes in

⁸ As we expand the governance database, we hope to construct comparable aggregates for other time periods, enabling comparisons over time as well as across countries.

⁹ Users of the governance database may question both the classification of individual indicators into these six clusters, and also the six categories themselves. Users are therefore welcomed to use individual indicators and construct aggregate indicators that are most useful to their own analytic purposes

government, which not only has a direct effect on the continuity of policies, but also at a deeper level undermines the ability of all citizens to peacefully select and replace those in power.

The next two clusters summarize various indicators of the ability of the government to formulate and implement sound policies. In "Government Effectiveness" we combine perceptions of the quality of public service provision, the quality of the bureaucracy, the competence of civil servants, the independence of the civil service from political pressures, and the credibility of the government's commitment to policies into a single grouping. The main focus of this index is on "inputs" required for the government to be able to produce and implement good policies. The second cluster, which we refer to as "regulatory burden", is more focused on the policies themselves. It includes measures of the incidence of market-unfriendly policies such as price controls or inadequate bank supervision, as well as perceptions of the burdens imposed by excessive regulation in areas such as foreign trade and business development.

The last two clusters summarize in broad terms the respect of citizens and the state for the institutions which govern their interactions. In "rule of law" we include several indicators which measure the extent to which agents have confidence in and abide by the rules of society. These include perceptions of the incidence of both violent and non-violent crime, the effectiveness and predictability of the judiciary, and the enforceability of contracts. Together, these indicators measure the success of a society in developing an environment in which fair and predictable rules form the basis for economic and social interactions. The final cluster, which we refer to as "graft", measures perceptions of corruption. Unlike all of the other clusters, this one can be easily described using the conventional definition of corruption: the exercise of public power for private gain. Despite this straightforward focus, the particular aspect of corruption measured by the various sources differs somewhat, ranging from the frequency of "additional payments to get things done" to the effects of corruption on the business environment. The presence of corruption is often a manifestation of a lack of respect of both the corrupter (typically a private citizen) and the corrupted (typically a public official) for the rules which govern their interactions, and hence represents a failure of governance according to our definition.

Aggregating Governance Indicators

Implicit in our organization of the data is the view that, within each cluster, each of these indicators measures a similar underlying basic concept of governance. Given this view, there are considerable benefits from combining these related indicators into an aggregate governance indicator for each cluster. First, the aggregate indicators span a much larger set of countries than any individual source, permitting comparisons of governance across a broader set of countries than would be possible using any single source. Second, aggregate indicators can provide more precise measures of governance than individual indicators. Third, it is possible to construct quantitative measures of the precision of both the aggregate governance estimates for each country, as well as their components. This allows formal testing of hypotheses regarding cross-country differences in governance.

For each of these clusters, we combine the component indicators into an aggregate governance indicator using the method described in Kaufmann, Kraay and Zoido-Lobato (1999). We use an unobserved components model which expresses the observed data in each cluster as a linear function of the unobserved common component of governance, plus a disturbance term capturing perception errors and/or sampling variation in each indicator.¹⁰ This model enables us to compute estimates of each of the six governance measures for each country, as well as measures of the precision of these estimates. Formally, the estimate of governance for a country produced by the unobserved components model is the mean of the distribution of unobserved governance conditional on the observed data for that country. This conditional mean is simply a weighted average of appropriately-rescaled scores of each of the component indicators. We also report the standard deviation of this conditional distribution as an indicator of the confidence we can have in this estimate. This standard deviation is declining in the number of individual indicators in which a particular country appears, and is increasing in the variance of the disturbance term on each of these indicators. Our choice of units for governance ensures that the estimates of governance have a mean of zero, a standard deviation of one, and range from around -2.5 to around

¹⁰ If there are multiple questions on a single source which belong in a particular cluster, we first average, questions from the same source, and treat the average as a single indicator based on that source. We do this because the necessary assumption that the errors on indicators are independent across indicators is much less tenable in the case of multiple questions from the same source.

2.5.¹¹ We orient these aggregate indicators such that higher values correspond to better outcomes.

The assumptions of the unobserved components model ensure that the distribution of governance in each country is normal, conditional on the data for that country. Therefore, these conditional means and standard deviations for each country have a natural interpretation. For example, a useful interpretation of the reported estimates and standard deviations for each country is to note that there is a 90% probability that the “true” level of governance in a country is in an interval of plus or minus 1.64 times the reported standard deviation centered on the point estimate itself. We refer to such a range as a 90% confidence interval around the estimate of governance for a country.¹² Similarly, since the assumptions of the model ensure that the distribution of governance conditional on the observed data is independent across countries, it is possible to make probabilistic statements comparing governance in pairs of countries. For example, it is straightforward to compute the probability that governance in one country j is better than in another country j' by evaluating the appropriate cumulative bivariate normal distribution.

As emphasized in our paper on aggregating governance indicators, we find that the underlying governance concepts in each cluster are not very precisely estimated, in the sense that the measured standard deviations are large relative to the units in which governance is measured. We illustrate this point in Figure 1. In each of the six panels, we order countries in ascending order according to their point estimates of governance on the horizontal axis, and on the vertical axis we plot the estimate of governance and the associated 90% confidence interval described above. The size of these confidence intervals varies across countries, as different countries appear in different numbers of sources with different variances. The resulting confidence intervals are large relative to the units in which governance is measured. To emphasize this key point, the horizontal lines in Figure 1 delineate the quartiles of the distribution of governance estimates. Relatively few countries have 90% confidence intervals that lie entirely within a given

¹¹ Underlying the model is the assumption that the distribution of governance is normal with zero mean and unit standard deviation. The distribution of the actual estimates of governance is very similar.

¹² This is a slight abuse of terminology, as these are not confidence intervals in the usual frequentist sense of a stochastically varying interval centered around a fixed unknown parameter. Rather, we treat governance as a random variable, and the 90% confidence interval is simply the 5th and 95th percentiles of the conditional distribution of governance given the observed data.

quartile. This indicates that sorting countries into even broad categories is subject to significant margins of error for most countries.

The rather large size of these confidence intervals has important implications for the use of these aggregate governance indicators. It is clear that small differences in point estimates of governance across countries are not likely to be statistically significant. This mirrors the reality that it is in fact difficult to distinguish small differences among countries using this type of data on governance. As a result, users of this data should focus on the range of possible governance for each country as summarized in the 90% confidence intervals shown in Figure 1. For two countries at opposite ends of the scale of governance, whose 90% confidence intervals do not overlap, it is reasonable to conclude that there are in fact significant differences in governance between these two countries. For pairs of countries that are closer together and whose 90% confidence intervals overlap, one should be much more circumspect about the significance of estimated differences in governance between two such countries.

Despite the imprecision of these aggregate indicators, they are still very useful, for several reasons. First, since each of these aggregate indicators spans a much larger set of countries than any individual indicator, it is possible to make comparisons – however imprecise -- across a much larger set of countries than would be possible with any single indicator. Second, although imprecise, each aggregate indicator provides a more precise signal of its corresponding broader governance concept than do any of its component indicators, and moreover provides a convenient and consistent summary of the available evidence. Third, the measures of precision for each country are useful because they enable formal statistical tests of cross-country differences in governance instead of arbitrary comparisons. Fourth, it is possible to use information in the estimates of the precision of each aggregate to quantify the effect of measurement error in regression analyses that use governance indicators as right-hand side variables.

4. Governance Matters

How much does governance matter for development outcomes? In Figures 2-4, we document the strong positive association between each of the six aggregate governance indicators and three development outcomes: per capita incomes, infant mortality, and adult literacy. However, these simple correlations cannot be interpreted as evidence of a causal relationship from better governance to better development outcomes, since they do not control for other determinants of development, and may also reflect a reverse causation from development to governance. In this section, we disentangle the direct effects of governance on development outcomes by instrumenting for governance in a series of cross-sectional regressions of these outcomes on each of our six governance aggregates. We find that improvements in governance have a very large payoff in terms of development outcomes.

Our approach is motivated by Hall and Jones (1999), who argue that the key determinant of cross-country differences in output per worker is differences in what they call “social infrastructure”, and which can be broadly interpreted as some combination of the aspects of governance we discuss above. They measure social infrastructure as a simple average of a number of governance indicators from PRS and a variable measuring trade openness constructed by Sachs and Warner (1995). We extend these results by considering a wider range of governance indicators and development outcomes in a larger sample of countries.

Empirical Specification

To simplify the discussion, we present the empirical specification using the logarithm of per capita GDP as the dependent variable. When we turn to the results, we will consider the identical specifications for the two other development indicators: infant mortality and adult literacy. We follow Hall and Jones (1999) in writing an extremely parsimonious specification in which the logarithm of per capita income, y_j , is a linear function of governance, g_j , and an error term e_j :

$$(1) \quad y_j = \alpha + \beta \cdot g_j + e_j$$

The error term reflects both measurement error in per capita incomes as well as all other determinants of cross-country differences in per capita incomes that have been excluded from this simple specification. To the extent that these are correlated with governance, this will introduce omitted variables bias in simple ordinary least squares (OLS) estimates of Equation (1).

Governance itself is not randomly distributed across countries. Good governance requires time and resources to develop, suggesting that richer countries are more likely to enjoy good governance. Governance also depends on a country's political and social history, especially in those countries that inherited a set of institutions from the former colonial powers. Based on this motivation we write governance as a function per capita income y_j , as well as a set of additional observable determinants x_j :

$$(2) \quad g_j = \gamma + \delta \cdot y_j + \theta' x_j + v_j$$

where v_j is a zero-mean error term capturing other unobserved determinants of governance. Depending on the sign of the feedback from income to governance, simple OLS estimates of (1) will be biased upwards or downwards.

Finally, we have already observed that governance itself is not very precisely measured. In particular, our observed governance aggregates, g_j^* , provide a noisy signal of "true" governance:

$$(3) \quad g_j^* = g_j + u_j$$

where u_j is a zero-mean disturbance term reflecting measurement error. This will introduce a downward bias in regressions using observed governance as the explanatory variable.

Substituting Equation (3) into Equation (1) yields our empirical specification, in which we regress the log-level of per capita income, y_j , on observed governance, g_j^* :

$$(4) \quad y_j = \alpha + \beta \cdot g_j^* + (e_j - \beta \cdot u_j)$$

We identify the model with the assumption is that the observable determinants of governance included in x_j are uncorrelated with the composite error term in Equation (4). In particular, these determinants of governance must be uncorrelated with both the other determinants of income excluded from our simple specification (captured by e_j), and with the measurement error in governance (captured by u_j), i.e. $E[x_j \cdot e_j] = 0$ and $E[x_j \cdot u_j] = 0$. Under this assumption, the elements of x_j are valid instruments for measured governance g_j^* in Equation (4). Given such instruments, we can address the problems of omitted variables bias, simultaneity bias, and attenuation bias using two-stage least squares (2SLS).

We follow Hall and Jones (1999) in using the fraction of the population speaking English, and the fraction of the population speaking a major European language (English, French, German, Portuguese or Spanish) as instruments. As Hall and Jones (1999) argue, a major feature of world history in the past several centuries has been the spread of Western European influence across countries. Together with this influence came an institutional and cultural background that in certain countries was conducive to the development of strong institutions and good governance. Since the extent of this influence varies widely across countries and may safely be thought of as exogenous to economic outcomes centuries later, proxies for this influence such as the linguistic variables are good candidates for instruments.¹³

Data

Our data are drawn from readily-available sources. The six governance indicators have already been discussed in the previous sections, and refer to the period 1997-98. We measure per capita income as the average over all available years

¹³ Hall and Jones (1999) also use distance from the equator as a proxy for the strength of past Western European influences. We found this not to be a good instrument in our regressions as we could not reject the null hypothesis that it has a direct influence on per capita incomes in addition to its indirect effect through governance. Only if we combine our direct measures of governance with other measures of policy (such as the Sachs-Warner index used by Hall and Jones (1999)) does an instrument set including distance from the equator pass tests of overidentifying restrictions. Similarly, in the Hall and Jones (1999) specification, tests of overidentifying restrictions fail if the policy variable is excluded from their measure of social infrastructure.

between 1990 and 1995 of per capita GDP in 1987 US dollars adjusted for purchasing power parity.¹⁴ For 152 countries, we obtain this data directly from World Bank estimates of PPP-adjusted per capita GDP as reported in the World Development Indicators. For a further 10 countries we have data on per capita GDP converted to dollars using market exchange rates in the World Development Indicators, and we use a regression of the log-level of per capita GDP at PPP on the log-level of per capita GDP at market exchange rates to crudely impute PPP adjustments for these countries. Finally, for the remaining 16 countries for which neither measure is available, we use data for per capita incomes at PPP in 1997 from the 1998 CIA Factbook (CIA (1998)). We obtain data on infant mortality and adult literacy primarily from the World Development Indicators, supplemented for a few countries from the CIA Factbook. Our data on linguistic variables are based on the data reported by Hall and Jones for their sample of 151 countries, and are extended to our larger sample of 178 countries using Grimes (1996).

Results

Our empirical results show a strong positive causal relationship from improved governance to better development outcomes. In Table 2, we present the results for per capita incomes. The rows of this table report our results for each of the six governance aggregates when entered separately in Equation (4). In the first two columns we report the 2SLS estimates of β and the associated standard errors, for each of these indicators. The most striking feature of these results is that the magnitudes of the estimated coefficients are very large. To see this, recall that our choice of units for governance implies that the standard deviation of governance across countries is equal to one. Therefore, the coefficient on governance can be interpreted as the $100 \times (e^\beta - 1)$ -percent increase in per capita incomes due to a one-standard deviation improvement in governance. The estimated coefficients in the top panel of Table 2 (corresponding to the largest possible sample of countries for each indicator) indicate that a one standard deviation improvement in governance leads to between a 2.5-fold (in the case of voice and accountability) and a 4-fold (in the case of political instability and violence) increase in per capita income. These results clearly indicate that there is a large payoff in terms

¹⁴ The slight difference in timing between the governance and per capita income measures is driven entirely by data availability. Given that the time series variation in these indicators is very small relative to the cross-sectional variation, this discrepancy is unlikely to influence our results.

of per capita income to improvements in governance. In other words, governance does matter.

The next two columns report the results of two key specification tests which are crucial to the plausibility of this simple empirical specification. In the first of these we report the p-value associated with the null hypothesis that the instruments affect income only through their effects on governance. For five out of the six governance measures, we do not reject this null hypothesis, which we interpret as evidence in favour of our identifying assumptions $E[x_j \cdot e_j] = 0$ and $E[x_j \cdot u_j] = 0$.¹⁵

In the next column we summarize the strength of our instruments by reporting the F-statistic from the first-stage regressions of each governance indicator on the instruments. In all cases the F-statistic is highly significant, suggesting that the instruments have significant explanatory power for governance. Although this consideration is irrelevant asymptotically, in finite samples weak instruments may cause the 2SLS estimates to be biased towards the probability limits of the OLS estimates. We therefore take comfort in the finding that these linguistic variables appear to have very good explanatory power for governance. In summary, our specification tests in the full sample of countries suggest that in all cases except graft, we can have considerable confidence that the 2SLS estimator is producing consistent estimates of β and captures the causal effect from governance to per capita income.

In the remaining panels of Table 2 we report the same results for two subsamples of interest. In order to ensure the comparability of the estimated coefficients across indicators, we first restrict the sample to the set of 154 countries which appear in all six governance aggregates. Comparing the estimated coefficients in the first and second panels, we find that the results are quite similar. This reassures us that the differences in estimated coefficients across governance indicators do not simply reflect differences in the samples of countries they cover. In the bottom panel of Table 2 we investigate whether our results are driven only by the differences between developed

¹⁵ Only in the case of graft do we reject this hypothesis, suggesting that our instruments are inadequate in this case. This is not to say that graft is unimportant for economic outcomes. Rather, in this set of countries, we have found it is difficult to find exogenous variations in the causes of graft which make it possible to identify the effects of graft on per capita incomes. We do note that the tests of overidentifying restrictions do pass in the non-OECD sample, and also for the other development indicators as discussed below.

and developing countries. To do this, we re-estimate the six equations excluding all OECD economies from the sample. The results are again qualitatively similar in that we find large and highly significant positive effects of governance on per capita incomes.¹⁶

In Table 3, we report a similar set of results, replacing per capita incomes in turn with the logarithm of infant mortality per thousand live births, and the adult literacy rate. For each of these development outcomes, we re-estimate our regressions for the six governance indicators, in the full set of countries and in the non-OECD sample. Our results are very similar to those for per capita incomes. Improved governance has a strong negative impact on infant mortality, of proportionally the same magnitude as for per capita incomes. Improved governance also leads to significant increases in adult literacy, with a one-standard-deviation increase in governance leading to between a 15 and 25 percentage point improvement in literacy in the full sample of countries. The results of the specification tests are also qualitatively similar.

¹⁶ The only difference is that the F-statistics from the first-stage regressions are somewhat weaker in the non-OECD sample. This raises the possibility that the 2SLS results are biased in the direction of the OLS estimates. We do find, however, that in the full sample of countries the OLS estimates are substantially smaller than the 2SLS estimates. This indicates that the downward biases due to measurement error dominate the possible positive biases from reverse causation or omitted variables. Based on this, we speculate that the 2SLS estimates in the non-OECD sample if anything understate the true effects of governance in this sample.

5. Conclusions

In this paper, we have documented a new database of governance indicators compiled from a variety of existing sources. These indicators report the subjective perceptions of respondents regarding the quality of various aspects of governance. We summarize a subset of these indicators using six aggregate governance indicators capturing six core concepts of governance. Governance, as measured by these indicators, matters a great deal for economic outcomes. We have provided new evidence of a strong positive causal relationship from governance to better development outcomes.

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Table 1: Sources of Quantitative Measures of Governance

Code	Source	Publication	Nature	Country Coverage	Coverage Index
BERI	Business Environment Risk Intelligence	Business Risk Service	Poll	50 mostly developed countries	0.44
CEER	Wall Street Journal	Central European Economic Review	Survey	27 transition economies	0.85
DRI	Standard and Poor's DRI/McGraw-Hill	Country Risk Review	Poll	106 developed and developing countries	0.23 *
EBRD	European Bank for Reconstruction and Development	Transition Report	Poll	26 transition economies	0.85
EIU	Economist Intelligence Unit	Country Risk Service, & Country Forecast	Poll	114 developed and developing countries	0.19 *
FH	Freedom House	Freedom in the World	Poll	172 developed and developing countries	0.03 *
		Nations in Transit	Poll	28 transition economies	0.82
GALLUP	Gallup International	50th Anniversary Survey	Survey	44 mostly developed countries	0.50
GCS	World Economic Forum	Global Competitiveness Survey	Survey	54 developed and developing countries	0.42
GCSA	World Economic Forum	Global Competitiveness Survey, Africa	Survey	23 African countries	0.73
HFWSJ	Heritage Foundation/Wall Street Journal	Economic Freedom Index	Poll	154 developed and developing countries	0.06 *
PERC	Political Economic Risk Consultancy	Asia Intelligence	Survey	11 Asian countries	0.83
PRS	Political Risk Services	International Country Risk Guide	Poll	140 developed and developing countries	0.10 *
WCY	Institute Management Development	World Competitiveness Yearbook	Survey	46 primarily developed countries	0.59
WDR	World Bank	World Development Report	Survey	74 developed and developing countries	0.25 *

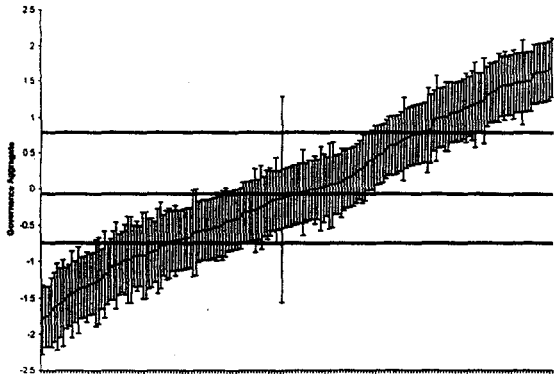
Notes: Poll stands for "polls of experts" and Survey for "survey of entrepreneurs" (except gallup, which is a survey of citizens)

(*) Representative source

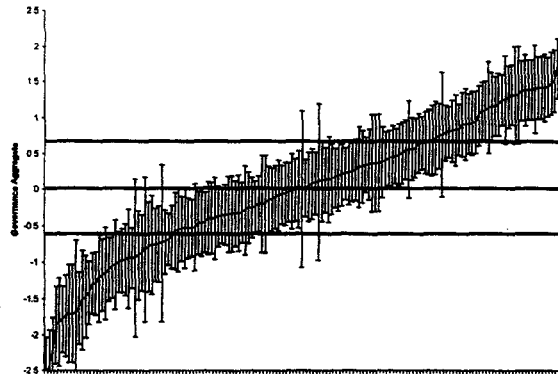
Figure 1: Aggregate Governance Indicators

(i) Process by Which Those in Authority are Selected, Monitored and Replaced

(a) Voice and Accountability

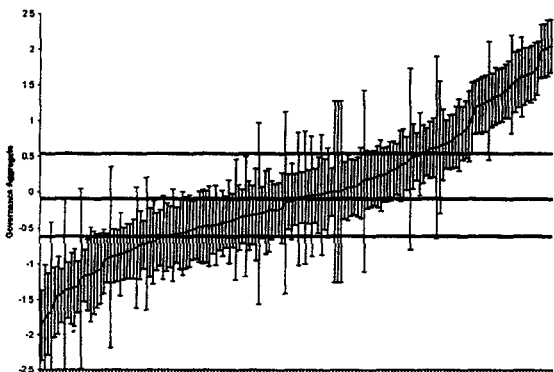


(b) Political Instability and Violence

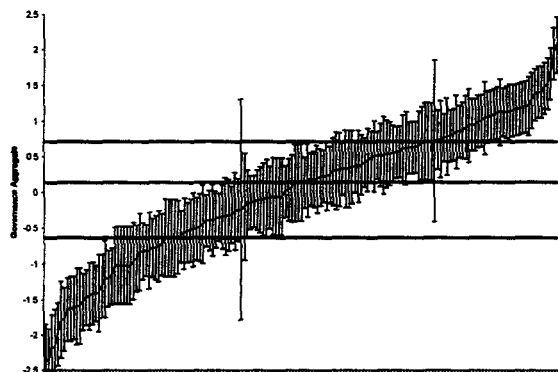


(ii) The Capacity of Government to Manage Resources and Implement Sound Policies

(a) Government Effectiveness

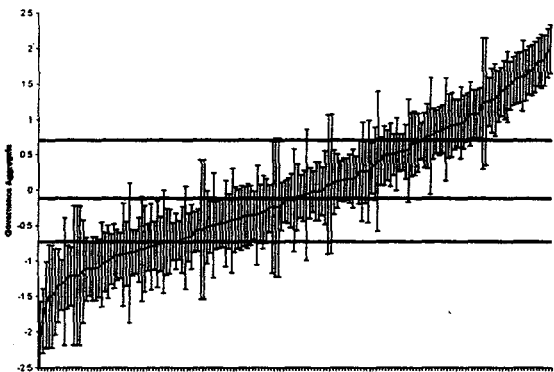


(b) Regulatory Burden

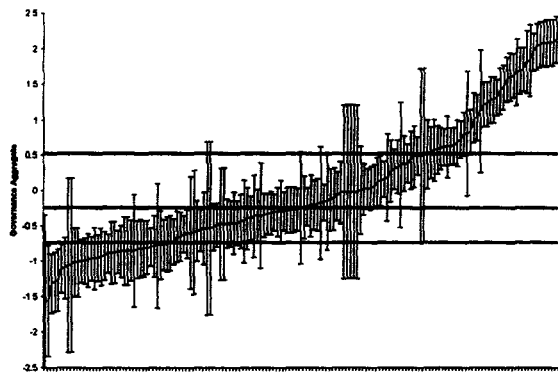


(iii) Respect of Citizens and the State for the Institutions of Society

(a) Rule of Law

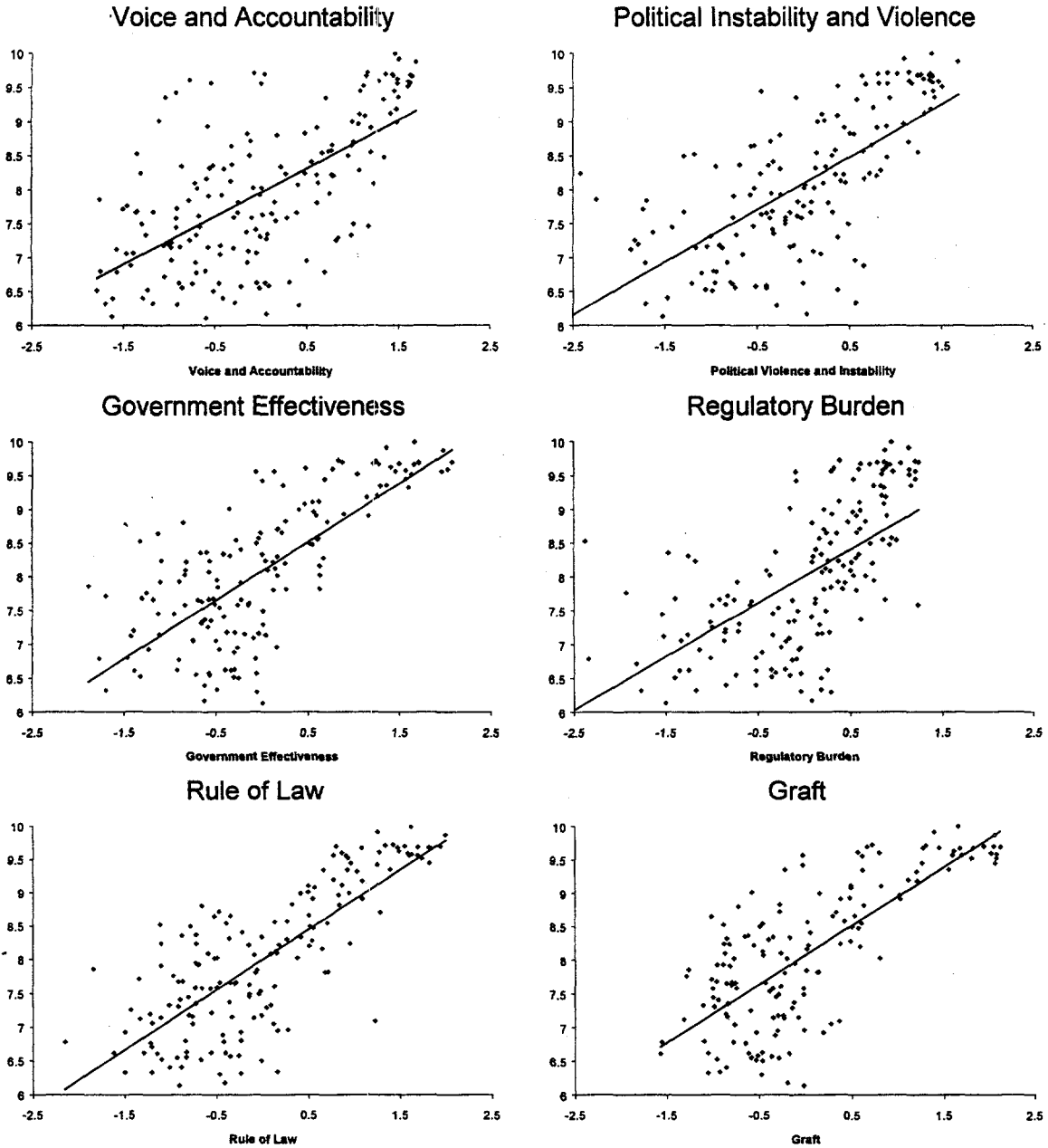


(b) Graft



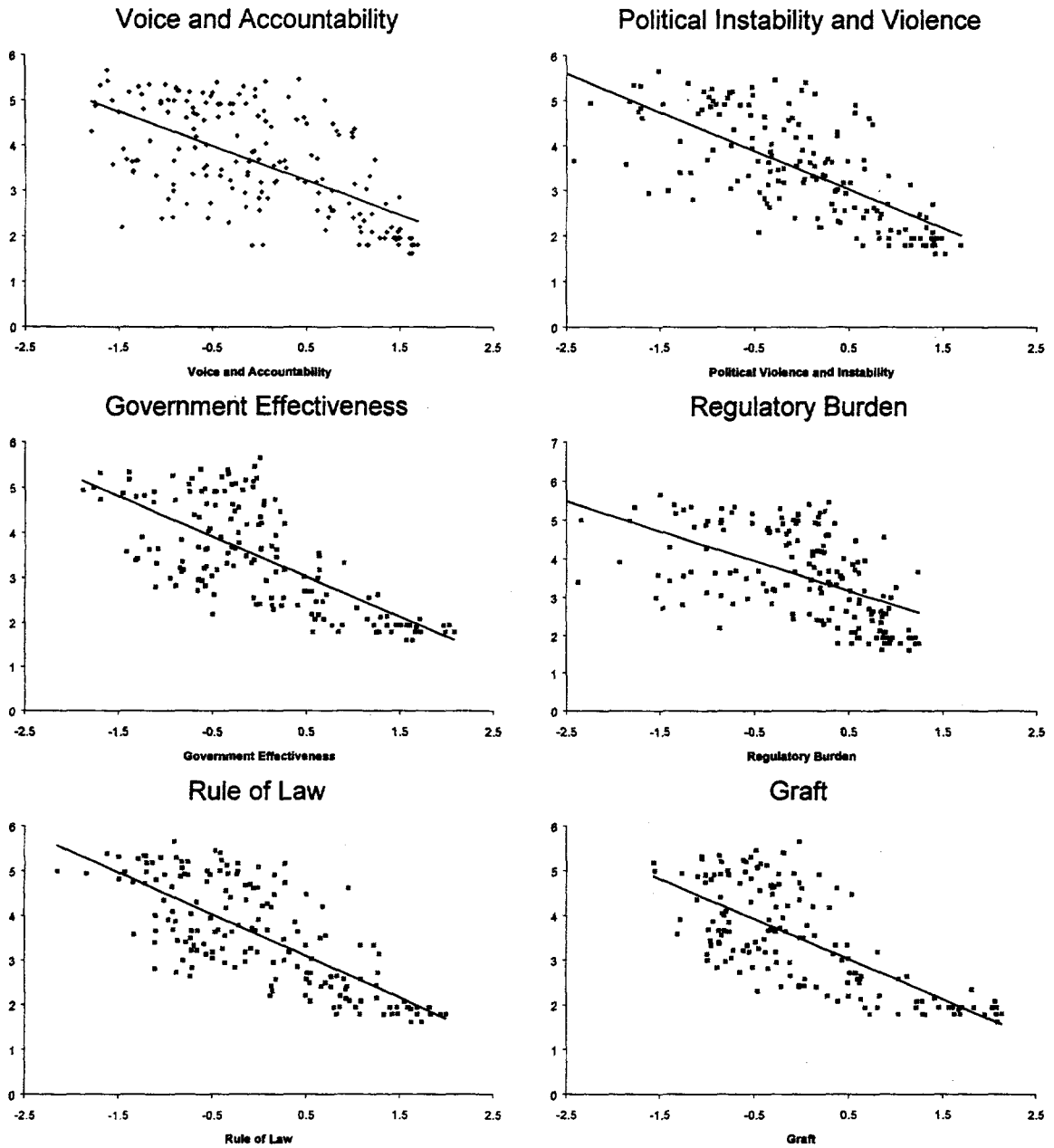
Notes: Each graph reports the value of the governance index (on the vertical axis) for each country (on the horizontal axis), together with a 90% confidence interval. The horizontal lines indicate the first, second and third quartiles of the distribution of governance. Countries are ordered in ascending order from left to right. Higher values of each index correspond to better outcomes.

Figure 2: Governance and Per Capita Incomes



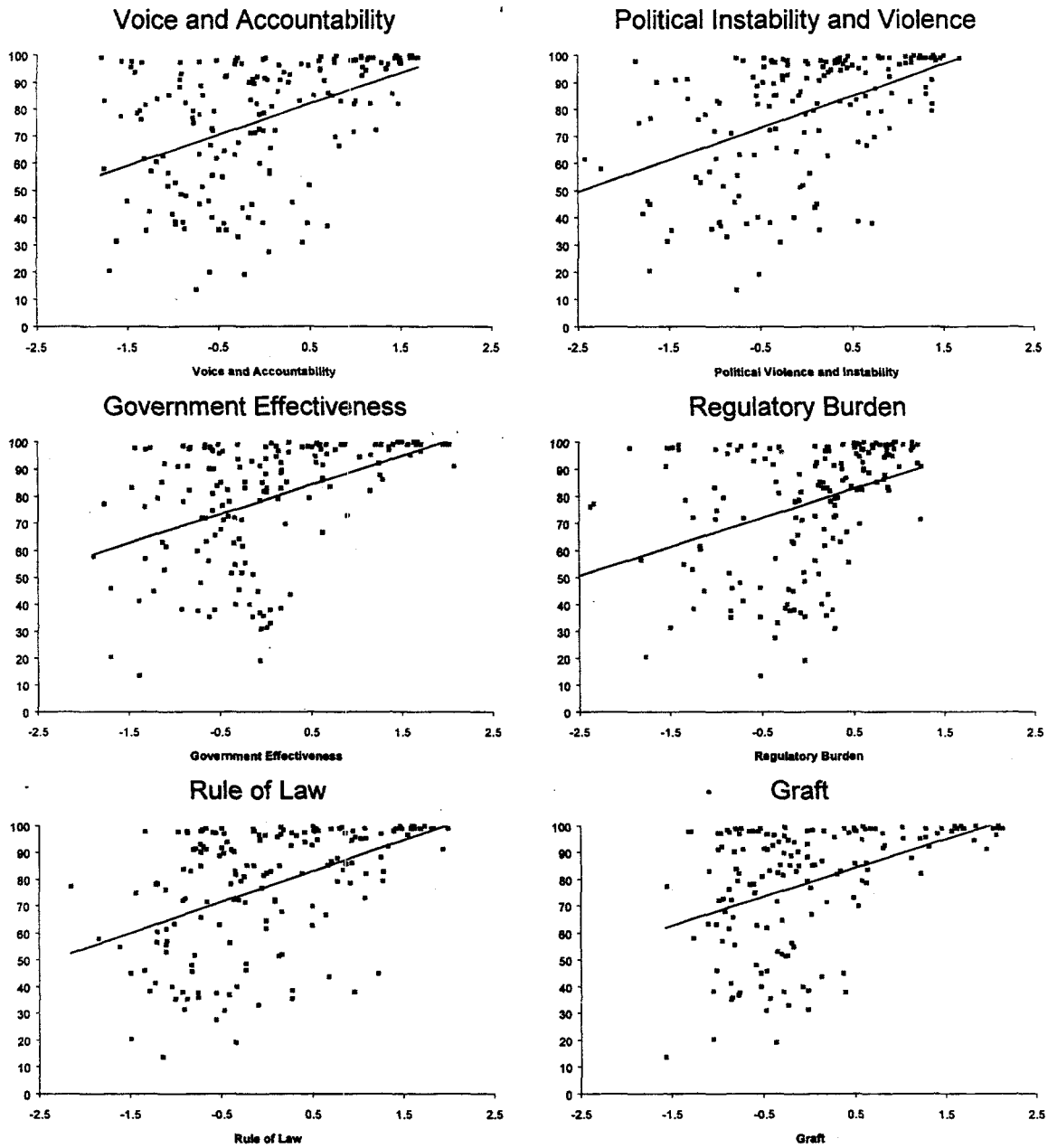
Notes: Each graph plots the indicated governance aggregate (on the horizontal axis) against the logarithm of per capita GDP at PPP (on the vertical axis) for the sample of countries covered by the governance aggregate.

Figure 3: Governance and Infant Mortality



Notes: Each graph plots the indicated governance aggregate (on the horizontal axis) against the logarithm of infant mortality per thousand live births (on the vertical axis) for the sample of countries covered by the governance aggregate.

Figure 4: Governance and Adult Literacy



Notes: Each graph plots the indicated governance aggregate (on the horizontal axis) against the adult literacy rate in percent (on the vertical axis) for the sample of countries covered by the governance aggregate.

Table 2: Regression Results for Per Capita Income

Dependent variable is the logarithm of per capita GDP at PPP

	2SLS β	s.e.	P-Value for Test of Overidentifying Restrictions	F-statistic from first-stage Regression	Number of Observations
Full Sample					
Voice and Accountability	0.888	0.109	0.167	23.025	173
Political Instability and Violence	1.394	0.177	0.485	6.301	155
Government Effectiveness	1.102	0.128	0.127	12.080	156
Regulatory Burden	1.133	0.143	0.874	18.413	166
Rule of Law	1.335	0.179	0.122	7.983	166
Graft	0.990	0.112	0.018	12.069	155
Sample of Countries Appearing in All Six Aggregates					
Voice and Accountability	0.907	0.123	0.175	17.559	154
Political Instability and Violence	1.390	0.177	0.491	5.979	154
Government Effectiveness	1.095	0.130	0.106	11.177	154
Regulatory Burden	1.085	0.155	0.792	16.998	154
Rule of Law	1.237	0.171	0.071	6.952	154
Graft	0.977	0.111	0.017	11.567	154
Non-OECD Sample					
Voice and Accountability	0.685	0.143	0.093	14.259	149
Political Instability and Violence	1.811	0.532	0.712	1.190	131
Government Effectiveness	1.561	0.452	0.486	2.552	132
Regulatory Burden	0.880	0.169	0.990	11.250	142
Rule of Law	2.079	0.670	0.365	1.227	142
Graft	1.192	0.317	0.096	2.227	131

Table 3: Regression Results for Other Development Outcomes

	2SLS β	s.e.	P-Value for Test of Overidentifying Restrictions	F-statistic from first-stage Regression	Number of Observations
Dependent Variable is Infant Mortality Per 1000 Live Births					
Full Sample					
Voice and Accountability	-0.847	0.118	0.324	23.025	173
Political Instability and Violence	-1.408	0.212	0.610	6.301	155
Government Effectiveness	-1.124	0.165	0.283	12.080	156
Regulatory Burden	-1.101	0.142	0.816	18.413	166
Rule of Law	-1.361	0.218	0.126	7.983	166
Graft	-1.025	0.140	0.013	12.069	155
Non-OECD Sample					
Voice and Accountability	-0.636	0.169	0.309	14.259	149
Political Instability and Violence	-1.842	0.722	0.966	1.190	131
Government Effectiveness	-1.573	0.590	0.853	2.552	132
Regulatory Burden	-0.812	0.186	0.790	11.250	142
Rule of Law	-2.211	0.977	0.445	1.227	142
Graft	-1.495	0.533	0.149	2.227	131
Dependent Variable is Adult Literacy Rate in Percent					
Full Sample					
Voice and Accountability	15.102	1.690	0.164	23.025	173
Political Instability and Violence	26.140	5.242	0.611	6.301	155
Government Effectiveness	20.445	3.911	0.336	12.080	156
Regulatory Burden	20.902	2.809	0.932	18.413	166
Rule of Law	25.167	5.354	0.220	7.983	166
Graft	18.602	3.544	0.080	12.069	155
Non-OECD Sample					
Voice and Accountability	15.857	2.688	0.103	14.259	149
Political Instability and Violence	55.701	20.129	0.791	1.190	131
Government Effectiveness	44.342	13.794	0.987	2.552	132
Regulatory Burden	22.281	4.224	0.672	11.250	142
Rule of Law	54.679	21.820	0.473	1.227	142
Graft	36.789	8.252	0.269	2.227	131

Appendix 1: The Governance Database

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A1.1 Business Environment Risk Intelligence (BERI)

BERI S.A. is a private source of analysis and forecasts of the business environment in a number of countries. The firm was founded in 1966 and is headquartered in Geneva, Switzerland. As of May 1999, BERI can be reached at <http://www.beri.com>.

BERI has two services that include variables of interest for the purpose of this paper: The Business Risk Service, and The FORELEND or Lender Risk Rating. We use data from the February 1998 version of Business Risk Service. Both services are supervised by Dr. F.T. Haner, founder and senior editor. Eighteen analysts analyze various data sources and produce initial draft reports, relying on an international network of sources for intelligence on countries. BERI convenes two permanent panels of about 105 experts from all over the world. These panels provide country ratings and qualitative observations on the basis of these initial reports. One panel assesses political conditions, and the other offers perspectives on the business operating environment. These ratings are constructed using the Delphi method, in which panelists are also supplied with the ratings they produced in previous assessments as well as the panel average score for each measure.

BRS monitors 50 countries three times per year, assessing 57 criteria separated into three indices. The Political Risk Index (PRI) focuses on sociopolitical conditions in a country. Diplomats and political scientists rate the present condition of eight causes and two symptoms of political risk, using a scale from 7 (no problem) to 0 (prohibitive problem). The Operation Risk Index (ORI) identifies major bottlenecks for business development, rating 15 criteria on a scale of 0 (unacceptable conditions) to 4 (superior conditions). The R factor assesses a country's willingness to allow foreign companies to convert and repatriate profits and to import components, equipment and raw materials. It is composed of 4 sub-indices, one of which assesses the quality of legal framework in terms of statutory laws and actual practice.¹⁷ The components of the PRI and ORI are reported in Table A1.1.

¹⁷ Unfortunately, this index has not yet been made available to us.

Table A1.1 Business Environment Risk Intelligence

Political Risk Index (PRI)

Internal Causes of Political Risk

- 1 Fractionalization of the political spectrum and the power of these factions.
- 2 Mentality, including xenophobia, nationalism, corruption, nepotism, willingness to compromise, etc.
- 3 Fractionalization by language, ethnic and/or religious groups and the power of these factions.
- 4 Social conditions, including population density and wealth distribution.
- 5 Restrictive (coercive) measures required to retain power.
- 6 Organization and strength of forces for a radical government.

External Causes of Political Risk

- 7 Dependence on and/or importance to a major hostile power.
- 8 Negative influences of regional political forces.

Symptoms of Political Risk

- 9 Societal conflict involving demonstrations, strikes, and street violence.
- 10 Instability as perceived by non-constitutional changes, assassinations, and guerilla wars.

Operation Risk Index (ORI)

- 11 Policy Continuity
- 12 Enforceability of contracts
- 13 Attitude towards foreign investors and profits
- 14 labor Costs/Productivity
- 15 Degree of privatization
- 16 Professional services and contractors
- 17 Monetary inflation
- 18 Communications and transportation
- 19 Balance of Payments
- 20 Local management and partners
- 21 Bureaucratic Delays
- 22 Short-term credit
- 23 Economic Growth
- 24 Long-term loans and venture capital
- 25 Currency convertibility

A1.2 The Wall Street Journal Central European Economic Review (CEER)

The Central and Eastern Europe Review (CEER) is part of the European branch of the Wall Street Journal (WSJ), an American publishing company. As of May 1999 the CEER can be reached at: <http://interactive.wsj.com/public/current/summaries/ceer98-2.htm>

Since 1995, CEER carries out an annual survey of business analysts in Europe and the United States regarding the economic situation in Eastern Europe. Respondents are asked to rate 27 Eastern European countries on their attractiveness as a place to do business over the coming year, based on their perceptions of factors including corruption, rule of law and political stability. The factors considered in the survey are reported in Table A1.2. To the best of our knowledge, respondents in this survey are not provided with definitions of the specific concepts on which they are asked to rate countries.

CEER reports the average response in their December/January issue. We use data from the December/January 1999 issue for political stability and rule of law, and data from the December/January 1998 issue for corruption.

**Table A1.2: The Wall Street Journal
Central European Economic Review**

Concepts Measured in 1998 Survey

- 1 Economic Strength
- 2 Balance of Payments
- 3 Business Ethics
- 4 Integration into World Economy
- 5 Liquidity/Ease of Buying Stocks
- 6 Rule of Law
- 7 Price Stability
- 8 Productivity
- 9 Currency Stability/Investment Climate
- 10 Political Stability

Concepts Measured in 1997 Survey

- 11 Economic Growth
- 12 Price Stability
- 13 Integration into World Economy
- 14 Currency Stability/Investment Climate
- 15 Rule of Law
- 16 Ease of Portfolio Position
- 17 Productivity
- 18 Balance of Payments
- 19 Political Stability
- 20 Corruption

A1.3 Standard and Poor's DRI/McGraw-Hill (DRI)

DRI is an economic consulting and information company which provides data, analysis, forecasts and expert advice to strategic planners, business and financial analysts, and policy makers. It was founded in 1973 as a unit of Standard & Poor's and is based in the United States. As of May 1999, DRI can be contacted at: <http://204.151.55.106/index.htm>.

In 1996, DRI launched the Country Risk Review (CRR), a quarterly publication providing country risk assessments to international investors. A first draft of the risk ratings in this publication are produced by country analysts, who then submit their preliminary assessment to regional review committees charged with analyzing and challenging these assessment. The global risk service committee evaluates the reviewed assessments to ensure quality and cross-country consistency. The country analysts then produce the final country risk review. In this paper we use data from the first quarter of 1998 version of the Country Risk Review.

The CRR assesses the relationship between country risk and its effects on the profitability of investments. For each country, DRI identifies a number of "potential sources of risk", specifies measurable "risk events", measures how probable those risk events are, and assesses the severity of impact that each outcome would have. Based on these considerations, DRI produces a risk score for each country.

The CRR identifies a total of 33 "immediate risk events" and 18 "secondary risk events" for 106 developed and developing countries. Immediate risk events are classified into policy risks (tax, and non-tax), and outcome risks (price, and non-price). Secondary risk events are classified into domestic political risks, external political risks, and economic risks. These risk events are described in Table A1.3.

For each risk event, DRI produces a short run and a long run risk rating. These ratings provide subjective estimates of the likelihood that a particular risk event will occur within one and five years respectively. DRI follows a methodology to ensure that the five year forecasts are consistent with the short-term forecasts. Although these indicators nominally measure the likelihood of future changes in governance concepts, in practice the long-run ratings provide good measures of the current levels of governance.¹⁸

¹⁸ This judgement is based on a private communication with Farid Abolfathi, Director of the Country Risk Review. In response to our request of advice as to whether to use DRI's risk ratings on corruption as a proxy for current levels of corruption he replied: "Our approach focuses on the risk of increases in corruption, but our experience has been that these are highly correlated to corruption levels, particularly in a sample with large variance. Finally, if you are mainly interested in using our numbers as a proxy for corruption levels in a cross section of countries, I recommend using the five-year ones."

Table A1.3. Standard and Poor's DR/McGraw-Hill: Country Risk Service Immediate Risk Events

Risk Event	Definition
POLICIES TAX	
1 Capital Gains Taxes	A 10-percentage point increase in the rate of capital gains tax for foreign-owned businesses
2 Corporate Taxes	A 10-percentage point increase in the rate of corporate income tax during any 12-month period.
3 Export Taxes	A 5-percentage point increase in the average rate of export taxes during any 12-month period.
4 Import Taxes	A 10-percentage point increase in the average rate of import taxes/tariffs during any 12-month period.
5 Labor Taxes	A 5-percentage point increase in the rate of labor tax (social security, etc.) during any 12-month period.
6 Sales Taxes	A 5-percentage point increase in the average rate of sales taxes during any 12-month period.
7 Withholding Taxes	A 5-percentage point increase in the average rate of withholding taxes during any 12-month period.
POLICIES NON-TAX	
8 Enforceability of Government Contracts	A 1 point decline on a scale from "0" to "10" in the enforceability of contracts during any 12-month period.
9 Enforceability of Private Contracts	A 1-point decline on a scale from "0" to "10" in the legal enforceability of contracts during any 12-month period.
10 Ownership of Business by Non-Residents	A 1-point increase on a scale from "0" to "10" in legal restrictions on ownership of business by non-residents during any 12-month period.
11 Ownership of Equities by Non-Residents	A 1-point increase on a scale from "0" to "10" in legal restrictions on ownership of equities by non-residents during any 12-month period.
12 Regulations -- Environmental	An increase in environmental regulations, with respect to their level at the time of the assessment, that reduces total aggregate investment in real LCU terms by 5 percentage points.
13 Regulations -- Exports	A 2% reduction in export volume as a result of a worsening in export regulations or restrictions (such as export limits) during any 12-month period, with respect to the level at the time of the assessment.
14 Regulations -- Imports	A 2% reduction in import volume as a result of a worsening in import regulations or restrictions (such as import quotas) during any 12-month period, with respect to the level at the time of the assessment.
15 Regulations -- Other Business	An increase in other regulatory burdens, with respect to the level at the time of the assessment, that reduces total aggregate investment in real LCU terms by 10%
16 Transferability of Funds	A 1-point increase on a scale from "0" to "10" in restrictions on non-resident outward transfer of funds during any 12-month period.
OUTCOMES PRICE	
Measures included:	Real Currency Depreciation (vs. US\$), Equity Prices (in real LCU), Currency Appreciation, Factor Costs -- Commercial Real Estate Costs, Factor Costs -- Construction Materials Prices, Factor Costs -- Power and Energy Prices, Factor Costs -- Wages
OUTCOMES NON-PRICE	
17 Losses and Costs of Corruption	A 1-point increase on a scale from "0" to "10" in corruption during any 12-month period.
18 Losses and Costs of Crime	A 1-point increase on a scale from "0" to "10" in crime during any 12-month period.
Other measures included:	Default / Restructuring by Banks, Default / Restructuring on Govt. US\$ loans, Domestic Demand, Export Disruption (Sanctions/trade conflict), Import Disruption (Sanctions/trade conflict), Infrastructure Disruption or Shortage, Losses and Costs of Physical Hazards, Skilled-Labor Shortages

Table A1.3. Standard and Poor's DRI/McGraw-Hill (cont.): Country Risk Service Secondary Risk Events

Risk Event	Definition
DOMESTIC POLITICAL RISKS	
19 Military Coup Risk	A military coup d'etat (or a series of such events) that reduces the GDP growth rate by 2%
20 Major Insurgency/Rebellion	An increase in scope or intensity of one or more insurgencies/rebellions that reduces the GDP growth rate by 3% during any 12-month period.
21 Political Terrorism	An increase in scope or intensity of terrorism that reduces the GDP growth rate by 1% during any 12-month period.
22 Political Assassination	A political assassination (or a series of such events) that reduces the GDP growth rate by 1% during any 12-month period.
23 Civil War	An increase in scope or intensity of one or more civil wars that reduces the GDP growth rate by 4% during any 12-month period.
24 Major Urban Riot	An increase in scope, intensity, or frequency of rioting that reduces the GDP growth rate by 1% during any 12-month period.
25 Labor Strike and Unrest	An increase in scope, intensity, or frequency of labor strikes/turmoil that reduces the GDP growth rate by 1% during any 12-month period.
26 Kidnapping of Foreigners	An increase in scope, intensity, or frequency of kidnapping of foreigners that reduces the GDP growth rate by 1% during any 12-month period.
27 Government Instability	An increase in government personnel turnover rate at senior levels that reduces the GDP growth rate by 2% during any 12-month period.
28 Government Ineffectiveness	A decline in government personnel quality at any level that reduces the GDP growth rate by 1% during any 12-month period.
29 Institutional Failure	A deterioration of government capacity to cope with national problems as a result of institutional rigidity or gridlock that reduces the GDP growth rate by 1% during any 12-month period.
EXTERNAL POLITICAL RISKS	
30 Military Mobilization/Small Inter-State War	An increase in scope or intensity of an inter-state military conflict that reduces the GDP growth rate by 2-5% during any 12-month period.
31 Major Inter-State War	An increase in scope or intensity of a military conflict that reduces the GDP growth rate by more than 5% during any 12-month period.
Other measures included:	Economic Sanction Risk, Trade Conflict Risk
ECONOMIC RISKS	
Other measures included:	Interest Rate (Real increase), Consumer Price Inflation, Real Estate Price Decline (Commercial)

A1.4 European Bank for Reconstruction and Development (EBRD)

The EBRD is an international organization dedicated to fostering the transition towards open market-oriented economies and promoting private and entrepreneurial initiative in the countries of Central and Eastern Europe and the Commonwealth of Independent States (CIS). The EBRD is based in London, and as of May 1999 can be reached at <http://www.ebrd.org>.

The EBRD publishes an annual Transition Report, which includes a number of governance variables in its Transition Indicators and Survey of Legal Reforms. We use data from the 1998 edition of the Transition Report.

Transition Indicators

The Transition Report The EBRD presents eight "Transition Indicators" whose goal is to "represent the cumulative progress in the movement from a centrally planned economy to a market economy." The indicators are based on an a subjective analysis of objective data in a number of issues (checklist). Table A1.4 presents a detailed description of these indicators.

Legal Reform Survey

In 1998, the EBRD conducted a survey of local public officials, private firms, academics, lawyers, and other experts, in order to assess the progress made in financial legal reform in transition economies. The survey considered two areas of financial legal reform: banking and securities activities. For each area, two indices describing the extensiveness and effectiveness of the financial legal framework were developed, for a total of four ratings. The "extensiveness" ratings measure how closely legal rules affecting investment follow international standards. "Effectiveness" reflects how clear, accessible and adequately-supported the legal rules are. Both are intended to provide a measure of how conducive the laws of these countries are to fostering investment. This survey covered 26 countries. Table A1.4 presents a detailed description of each of the ratings.

Table A1.4. European Bank for Reconstruction and Development

Transition Report, Transition Indicators

Score	Definition
1	Large Scale privatization
1	Little private ownership
2	Comprehensive scheme almost ready for implementation, some sales completed
3	More than 25% of large-scale enterprise assets in private hands or in the process of being privatized but possible with major unresolved issues regarding corporate governance
4	More than 50% of state-owned enterprise and form assets in private ownership and significant progress on corporate governance of these enterprises
5	Standards and performance typical
2	Small Scale privatization
1	Little progress
2	Substantial share privatized
3	Nearly comprehensive program implemented
4	Complete privatization of small companies with tradable ownership rights
5	Standards and performance typical of advance industrial economies: no estate ownership of small enterprises effective tradability of land
3	Governance and restructuring
1	Soft budget constraints (tax credit and subsidy policies weakening financial discipline at the enterprise level); few other reforms to promote corporate governance
2	Moderately tight credit and subsidy policy but weak enforcement of bankruptcy legislation and little action taken to strengthen competition and corporate governance
3	Significant and substantial actions to harden budget constraints and to promote cooperate governance effectively
4	Standards and performance typical of advance d industrial economies: effective corporate control exercised through domestic financial institutions and markets, fostering market-driven restructuring
4	Price liberalization
1	Most prices formally controlled by the government
2	Price controls for several important product categories, state procurement at non-market prices remains substantial
3	Substantial progress on price liberalization: state procurement at non-market prices largely phased out
4	Comprehensive price liberalization, utility pricing which reflects economic costs
5	Standards and performance typical of advance industrial economies, comprehensive price liberalization, efficiency-enhancing regulation of utility pricing
5	Trade and foreign exchange system
1	Widespread import and /or export controls or very limited legitimate access to foreign exchange
2	Some liberalization of import and/or export controls, almost full current account convertibility in principle but with a foreign exchange regime that is not fully transparent
3	Removal of almost all quantitative and administrative import and export restrictions, almost full current account convertibility
4	Removal of all quantitative and administrative import and export restrictions and all significant export tariffs, insignificant direct involvement in exports and imports by ministries and state owned trading companies no major non-uniformity of customs duties for non-agricultural goods and services, full current account convertibility
5	Standards and performance norms of most advance d industrial economies: removal of most tariff barriers , membership in WTO
6	Banking reform & interest rate liberalisation
1	Little progress beyond establishment of a two-tier system
2	Significant liberalisation of interest rates and credit allocation; limited use of directed credit or interest rate liberalisation ceilings
3	Substantial progress in establishment of bank solvency and of a framework for prudential supervision and regulation; full interest rate liberalisation with little preferential access to cheap refinancing; significant lending to private enterprises and significant presence of private banks
4	Significant movement of banking laws and regulation towards BIS standards; well-functioning banking competition and effective prudential supervision; significant term lending to private enterprises; substantial financial deepening
5	Standards and performance norms of advanced industrial economies: full convergence of banking laws and regulations with BIS standards; provision of full set of competitive banking services
7	Securities markets & non-bank financial institutions
1	Little progress
2	Formation of securities exchanges, market-makers and brokers; some trading in government paper and/or securities; rudimentary legal and regulatory framework for the issuance and trading of securities
3	Substantial issuance of securities by private enterprises; establishment of independent share registries, secure clearance and settlement procedures, and some protection of minority shareholders; emergence of non-bank financial institutions (e.g. investment funds, private insurance and pension funds, leasing companies) and associated regulatory framework
4	Securities laws and regulations approaching IOSCO standards; substantial market liquidity and capitalisation; well-functioning non-bank financial institutions and effective regulation

Table A1.4. European Bank for Reconstruction and Development (cont.)

Transition Report, Progress in Financial Transition

8 The extensiveness of legal rules on banking and securities activities

- 1 Legal rules governing banking and securities are very limited in scope. For example, capital adequacy standards and restrictions on affiliated lending in banking do not exist. There may be no functioning stock exchange in this jurisdiction, or the capital markets' legal infrastructure may be in its earliest stage of development.
- 2 Legal rules governing banking and securities are somewhat limited in scope. Although regulations in banking have been amended to accord with core principles, at least one important area of regulation remains deficient - for example, capital adequacy, use of international accounting standards, use of consolidated comprehensive supervision. Oversight of securities markets is limited, and regulation of securities intermediaries and investment funds, for example, are either non-existent or rudimentary.
- 3 Legislation for banking and securities activities is reasonably comprehensive but would benefit from further refinement in some areas. Banking regulations generally conform to the Basic Committee's Core Principles, although regulations concerning bank insolvency and deposit protection may not have been adopted. Further refinement to regulation of securities intermediaries and/or investment funds and creation of shareholder depositories and registers is needed to achieve conformity with minimum international standards.
- 4 Comprehensive regulation exists with respect to banking and securities activities that conforms generally to minimum international standards. But refinement is still needed in at least one important aspect of either banking or securities regulation. For example, many countries in this category still need to enact rules concerning money laundering (including "know your customer" provisions) or bank insolvency. Legislation concerning shareholder depositories and registries is either non-existent or is in its early stages of implementation.
- 5 Banking and capital markets legislation and regulation is comprehensive and conforms to minimum international standards.

9 The effectiveness of legal rules on banking and securities activities

- 1 Legal rules governing financial institutions and markets are usually very unclear and often contradictory. The regulatory support of the laws is rudimentary. Supervisory mechanisms are either non-existent or poor. There are no meaningful procedures in place to make financial laws and regulations fully operational.
- 2 Legal rules are somewhat unclear and sometimes contradictory. Supervision of banking and securities activities exists on an ad hoc basis. But there are few, if any, meaningful procedures in place to enforce the law. There may be a lack of adequately trained staff in either banking or capital markets regulatory authorities.
- 3 Although legal rules governing banking and securities activities are reasonably clear, regulatory and supervisory support of the law may be inconsistent so as to create a degree of uncertainty. Although the regulator may have engaged in corrective actions against failing banks and securities markets practices, enforcement problems still exist.
- 4 Legal rules governing banking and securities activities are readily ascertainable. Banking and securities laws are generally well supported administratively and judicially, particularly regarding the efficient functioning of enforcement measures against failing institutions and illegal market practices. For example, the regulator has taken corrective action against individuals and securities intermediaries and is evident, but could still benefit from more systematic and rigorous enforcement. Courts have the authority to review enforcement decisions or other corrective actions for banks and/or securities firms.
- 5 Regulators possess comprehensive enforcement powers and exercise authority to take corrective action on a regular basis. Examination of securities intermediaries and licensing of intermediaries is frequent, as is the use of corrective action, such as prosecution for insider dealing, revocation of bank licences, liquidation of insolvent banks and consolidation of banks.

A1.5 The Economist Intelligence Unit (EIU)

The Economist Intelligence Unit is a for-profit organization producing analysis and forecasts of the political, economic and business environment in more than 180 countries. The EIU was founded in 1949 and is based in London. As of May 1999, the EIU can be reached at <http://www.eiu.com>.

In 1997, the EIU launched two quarterly publications which contain some governance measures: The Country Risk Service, and the Country Forecasts. The assessments in these publications are based on regular contributions from a global network of more than 500 information-gatherers. A panel of regional experts checks the accuracy, consistency and impartiality of these assessments. In this paper, we combine data from the 1999 first quarter edition of the Country Risk Service, and from the 1994-98 historical risk rating from the Country Forecast.

Country Risk Service (CRS)

The CRS provides international investors with risk ratings for seven broad categories of country risk—Political, Economic Policy, Economic Structure, Liquidity, Currency, Sovereign Debt, and Banking Sector—and covers 100 emerging markets. Within each category, subjective assessments are produced for a number of sub-issues. However, only the seven broad risk ratings are actually published.¹⁹

The Political Risk category is the most relevant rating for the purposes of this paper. It is divided into elements of Political Stability and elements of Political Effectiveness. Political stability asks whether the political scene is free of internal or external threats to security. Political effectiveness examines the quality of governance.

Country Forecasts (CF)

The CFs measure the quality or attractiveness of the business environment in 60 countries. The rankings examine ten separate criteria—the political environment, the macroeconomic environment, market opportunities, policy towards free enterprise and competition, policy towards foreign investment, foreign trade and exchange controls, taxes, financing, the labor market and infrastructure—and are designed to reflect the main criteria used by companies to formulate their global business strategies. Each criteria covers a number of issues for which two assessments are produced: A historical rating, covering the last 5 years, and a forecast rating covering the next five years.

For the purpose of this paper, the most interesting criteria covered is the political environment. All the issues covered under this heading are based on subjective qualitative assessments produced by EIU's staff.

Combining the CRS and CF Ratings

The Political Risk rating from the CRS and the Political Environment ratings from the CF ratings cover almost identical concepts, although using different rating scales. We convert the CF ratings to the same units as the CRS ratings, and augment the CRS ratings with the CF

¹⁹ Although, these estimates are produced all that is actually published are the risk ratings for the broad categories. We would like to thank Merli Baroudi, editor of the Country Risk Service, for kindly providing us some of the sub-components of the Political Risk Index.

ratings for the 14 mostly OECD economies appearing in the CF but not the CRS. This results in an indicator covering 114 developed and developing countries.²⁰

Table A1.5 The Economist Intelligence Unit.

Political Stability

- 1 War (Armed conflict)
- 2 Social unrest (Social unrest)
- 3 Orderly political transfers (Change in government)
- 4 Politically motivated violence (Terrorism threat)
- 5 International disputes (International disputes)

Political Effectiveness

- 6 Pro business orientation (Government policy)
- 7 Institutional effectiveness (Government efficacy)
- 8 Bureaucracy (Red tape bureaucracy)
- 9 Transparency/fairness (Legal system)
- 10 Corruption (Corruption)
- 11 Crime (Crime)

Country Risk Service – Political Risk (In parenthesis, Country Forecast – Political Environment)

²⁰ The only difference between these two sources is that the CRS makes assessments with respect to a specified year and quarter, while the CF provides historical averages for the previous five years. Given the OECD countries in the CF that we add to the CRS are likely to have very stable governance, this discrepancy in timing is of minor concern.

A1.6 Freedom House (FHFV, FHNT)

Freedom House is a non-governmental organization dedicated to the promotion of democratic values around the world. Freedom House was established in 1941 and is headquartered in New York City. As of May 1999, Freedom House can be reached on the web at <http://www.freedomhouse.org>.

In 1997 and 1998, Freedom House produced two publications containing governance measures: Freedom in the World and Nations in Transit. Freedom in the World was launched in 1955, and became an annual publication in 1978 with a consistent methodological approach. In 1997-98, it covered 191 countries and 60 related territories. Nations in Transit was launched in 1995. In 1998, it covered 28 post-communist countries. In this paper we use data from the 1997-98 edition of Freedom in the World and the 1998 edition of Nations in Transit.

Freedom House develops its assessments using a team of academic advisors, in-house experts, published resources, and local correspondents including human rights activists, journalists, editors and political figures. Freedom House staff also conduct regular fact-finding missions to countries being assessed. An academic advisory board provides input to the project in general.

Freedom in the World (FHFV)

FHFV evaluates political rights and civil liberties around the world. Freedom House defines political rights as those freedoms that enable people to participate freely in the political process, and civil liberties as the freedom to develop views, institutions and personal autonomy apart from the state. In 1997, Freedom House also published an assessment of freedom of the press, taking into consideration freedoms in law and in practice, freedom from political and economic influence over media content and actual violations of press freedom such as arrests or murders of journalists

For all countries, the subjective assessments are based on checklists of rights and freedoms, reported in Table A1.6. A Freedom House team assigns a rating to each item on the checklist and produces an initial assessment for each country. The team then assess whether the checklists might have missed an important factor for a particular country. The scores are then reviewed to ensure quality and consistency across countries, and a final rating is produced.

Nations in Transit (FHNT)

FHNT evaluates the progress in democratic and economic reform in post-communist countries. Country surveys are written by Freedom House staff or consultants and are reviewed by academics and senior Freedom House staff. Each report is divided into nine sections, ranging from the political process to progress in price liberalization. For each section, a preliminary rating is based on a checklist of issues. The academic oversight board establishes the final ratings by consensus following extensive discussions and debate, which are reviewed by the Freedom House rating committee.

Table A.1.6. Freedom House

Freedom in the World

1 Political Rights

Is the head of state and/or head of government or other chief authority elected through free and fair elections?

Are the legislative representatives elected through free and fair elections?

Are there fair electoral laws?

Are the voters able to endow their freely elected representatives with real power?

Do the people have the right to freely organize in different political parties or other competitive political groupings of their choice, and is the system open to the rise and fall of these competing parties or groupings?

Is there a significant opposition vote, de facto opposition power, and a realistic possibility for the opposition to increase its support or gain power through elections?

Are the people free from domination by the military, foreign powers, totalitarian parties, religious hierarchies, economic oligarchies or any other powerful groups?

Do cultural, ethnic, religious and other minority groups have reasonable self-determination, self-government, autonomy or participation through informal consensus in the decision-making process?

2 Civil Liberties

Are there free and independent media, literature and other cultural expressions? (Note: in cases where the media are state controlled but offer pluralistic points of view, the Survey gives the system credit)

Is there open public discussion and free private discussion?

Is there freedom of assembly and demonstration?

Is there freedom of political or quasi-political organization?

Are citizens equal under the law, with access to an independent, nondiscriminatory judiciary, and are they respected by the security forces?

Is there protection from political terror, and from unjustified imprisonment, exile or torture, whether by groups that support or oppose the system, and freedom from war or insurgency situations?

Are there free trade unions and peasant organizations or equivalents, and is there effective collective bargaining?

Are there free professional and other private organizations?

Are there free businesses or cooperatives?

Are there free religious institutions and free private and public religious expressions?

Are there personal social freedoms, which include such aspects as gender equality, property rights, freedom of movement, choice of residence, and choice of marriage and size of family?

Is there equality of opportunity, which includes freedom from exploitation by or dependency on landlords, employers, union leaders, bureaucrats or any other type of denigrating obstacle to a share of legitimate economic gains?

Is there freedom from extreme government indifference and corruption

3 Freedom of the Press

Laws and Practice: Assess whether or not dissent is allowed, if private media are permitted alongside governmental broadcasting, if independent media, in practice, are permitted to express diverse views

Political Influence over Media Content: This category reflects political pressure on the content of both privately owned and government media, and takes into account the day-to-day conditions in which journalists work, threats from organized crime, or from religious extremists, for example, often generate self-censorship and so negatively affect the media environment

Economic influence over Media Content: Economic influence may come from the government or from private entrepreneurs. This reflects competitive pressures in the private sector that distort reportage as well as economic favoritism or reprisals by government for unwanted press coverage

Actual Incident of Violations of Press Freedom: Murders, arrests, suspension and other violations create a sense of fear which may discourage objective reporting

Table A.1.6. Freedom House (cont.)

Nations in Transit

- 4 Political Process
Deals with elections, referenda, party configuration, conditions for political competition, and popular participation in elections
- 5 Civil Society
Highlights the degree to which volunteerism, trade unionism, and professional associations exist, and whether civic organizations are influential
- 6 Independent Media
Press freedom, public access to a variety of information sources, and the independence of those sources from undue government or other influences.
- 7 Rule of Law
Considers judicial and constitutional matters as well as the legal and de facto status of ethnic minorities.
- 8 Government and Public Administration
Government decentralization, independent and responsibilities of local and regional governments, and legislative and executive transparency are discussed.
- 9 Privatization
Details legislative and actual states of privatization
- 10 Macroeconomic Policy
Covers tax reform, fiscal and monetary policy, and banking reform
- 11 Microeconomic Policy
Covers property rights, price liberalization; and the ability to operate a business, international trade and foreign investment, and the energy sector

A1.7 Gallup International

Gallup International Association is a group of 49 marketing agencies around the world. Gallup was founded in 1947 and is headquartered in Switzerland. As of May 1999, Gallup International can be reached at <http://www.gallup-international.com/survey1.html>.

In 1997, Gallup International celebrated its 50th anniversary with a survey of around 30,000 people in 44 countries. Opinions were collected on a variety of topics including corruption in society. For corruption, Gallup asked respondents "From the following groups of people can you tell me for each one of them if there are a lot of cases of corruption, many, few cases or no cases of corruption at all: 1) politicians, 2) trade unionists, 3) public officials, 4) businessmen, 5) judges, 6) ordinary citizens, 7) clergy/priests, and 8) journalists."

We construct a country index of corruption in the public sphere as the average responses regarding politicians, public officials and judges. We assign a value of 2 to "a lot", a value of 1 to "many" and a value of 0 to "few or none". For each of these three categories, we construct a weighted average of these three numbers using the fraction of respondents in each category. We then construct a simple average across the three categories as the country index.

Table A1.7 Gallup International 50th Anniversary Survey

From the following groups of people can you tell me for each one of them if there are a lot of cases of corruption, many, few cases or no cases of corruption at all:

- 1) politicians
- 2) trade unionists
- 3) public officials
- 4) businessmen
- 5) judges
- 6) ordinary citizens
- 7) clergy/priests
- 8) journalists

A1.8 World Economic Forum (GCS, GCSA)

The World Economic Forum (WEF) is an independent, not-for-profit organization bringing together top leaders from business, government, academia and the media to address key economic, social and political issues in partnership. The WEF was founded in 1971 and is headquartered in Geneva, Switzerland. As of May 1999, the WEF can be reached at: <http://www.weforum.org>.

Since 1996, The WEF has sponsored the Global Competitiveness Report, an annual publication produced in collaboration with the Harvard Institute for International Development (HIID). As background for this report, the WEF conducts a survey of about 3000 enterprises in 60 countries, the Global Competitiveness Survey. Since 1998, the WEF has also sponsored the Africa Competitiveness Report, also produced in partnership with HIID. As background for this report, the WEF conducted a survey of 650 enterprises in 23 African countries, the Global Competitiveness Survey Africa. In this paper, we rely on data from the 1998 editions of the Global Competitiveness Survey and the Global Competitiveness Survey Africa.

Global Competitiveness Survey (GCS)

This survey measures the perceptions of business executives about the country in which they operate. The survey asks top managers to rank on a 1 to 7 scale their opinion on several issues that can not be measured otherwise. The survey covers eight broad topics: 1) Openness, 2) Government, 3) Finance, 4) Infrastructure, 5) Technology, 6) Management, 7) Labor, and 8) Institutions.

Global Competitiveness Survey Africa (GCSA)

The GCSA follows the same methodology as the GCS, although there are some minor differences in the questionnaires of the two surveys. Table A1.8 describes the questions from this survey included in the governance database.

Table A1.8 World Economic Forum

Global Competitiveness Report

Year	Number	Question
Openness		
1 98	q101	Negative impact of tariffs on costs and availability of equipment and materials
2 98	q102	Negative impact of hidden barriers to trade
Government		
3 98	q201	Likelihood of dramatic change in institutions
4 98	q204	Competence of public sector personnel
5 98	q205	Time spent with bureaucracy
6 98	q208	Political pressure on public services
7 98	q209	The tax system hinders business competitiveness
8 98	q210	Extent of tax evasion
9 98	q211	Wasteful government expenditure
Finance		
10 98	q303	Domestic banks are protected from foreign competition
11 98	q311	Barriers to entry in banking sector are very high
12 98	q312	Interest rates are heavily regulated
Infrastructure		
13 98	q414	Private sector participation in infrastructure projects is not permitted
Technology		
14 98	q511	Intellectual property protection
Institutions		
15 98	q801	Extent of market competition
16 98	q802	Effectiveness of anti-trust policies
17 97	q803	Irregular, additional payments connected with import and export permits, business licensees, exchange controls, tax assessments, police protection or loan applications
18 98	q803	Irregular, additional payments connected with import and export permits, business licensees, exchange controls, tax assessments, police protection or loan applications
19 98	q805	Independence of the judiciary from interference by the government and/or parties to the dispute
20 97	q806	Legal system effectiveness at enforcing commercial contracts
21 98	q806	Legal system effectiveness at enforcing commercial contracts
22 97	q808	Private business capacity to file lawsuits at independent and impartial courts against government
23 98	q808	Compliance with court rulings and /or arbitration awards
24 98	q809	Frequency of "irregular payments" to officials and judiciary
25 97	q810	Citizens' willingness to accept legal means to adjudicate disputes rather than depending on physical force or illegal means
26 98	q810	Private business has recourse to independent and impartial courts for challenging the legality of government actions
27 98	q811	Likelihood of winning a court case filed against the government
28 97	q813	The highest power is always peacefully transferred
29 98	q813	Government commitments
30 98	q814	Police effectiveness in safeguarding personal security
31 98	q815	Costs of organized crime for business

Table A1.8 World Economic Forum (cont.)

Africa Competitiveness Report

Number	Question
Institutions	
32	1 (Now) Extent of market competition
33	2 Effectiveness of anti-trust policies
34	3 (Now) Legal system effectiveness at enforcing commercial contracts
35	4 (Now) Private business has recourse to independent and impartial courts for challenging the legality of government actions
36	5 (Now) Private business can readily file and try lawsuits against other business, foreign or domestic, at independent and impartial courts
37	6 Citizens' willingness to accept legal means to adjudicate disputes rather than depending on physical force or illegal means
38	7 Change in Institutions,
39	9 Costs of uncertain rules, laws, or government policies
40	10 Government honors commitments of previous regimes
41	11 Strength and expertise of the civil service to avoid drastic interruptions in government services in times of political instability
42	13 Police effectiveness in safeguarding personal security
43	14 Costs of organized crime for business
44	15 Costs of petty crime and theft for business
Openness	
45	1 (Now) Negative impact of tariffs on costs and availability of equipment and materials
46	2 (Now) Negative impact of hidden barriers to trade
47	14 Openness of public sector contracts to foreign investors
48	15 Policies for dividend remittances as obstacles to development
Macroeconomics	
49	1 Dominance of state owned or state controlled enterprise
50	2 Regulatory burden
51	5 Competence of public sector personnel,
52	4 State interference in private business
53	6 Regulatory discretionality (vague regulations)
54	8 The tax system hinders business competitiveness
55	9 Extent of tax evasion
56	10 Wasteful government expenditure,
Finance	
57	1 Domestic banks are protected from foreign competition
Governance	
58	1 (Now) Irregular, additional payments connected with import and export permits, business licensees, exchange controls, tax assessments, police protection or loan applications
General questions	
59	a Regulations for starting a business as an obstacle to business development
60	b Price controls as an obstacle to business development
61	c Regulations on foreign trade as an obstacle to business development
62	f Foreign currency regulations as an obstacle to business development
63	d Transfer costs associated with exporting capital as an obstacle to business development
64	m General uncertainty on costs of regulations as an obstacle to business development
65	n Crime and theft as an obstacle to business development
66	o Corruption as an obstacle to business development
67	p Tribal conflict as an obstacle for business development
68	q Government coups or political instability as an obstacle to development

A1.9 Heritage Foundation/Wall Street Journal (HFWSJ)

The Heritage Foundation is a research and educational institute whose mission is to formulate and promote conservative public policies. The Heritage Foundation was established in 1973 and is headquartered in Washington, DC. As of May 1999, the Heritage Foundation can be reached on the web at <http://www.heritage.org>.

In 1995 the Heritage Foundation, in partnership with the Wall street Journal, launched its annual Index of Economic Freedom. This index covers 161 countries and measures economic freedoms and prospects for growth in the global economy. The index is designed for cross country research and to assist international investors and aid donors to allocate their resources. We use data from the 1998 edition of this Index.

This index is based on a detailed assessment of 10 different factors, including foreign investment codes, taxes, tariffs, banking regulations, monetary policy, and the black market. For some of these, assessments are mechanically based on objective data, while others are generated as subjective ratings based on a pre-specified checklist. These checklists are completed drawing on a large number of public and private sources. The 10 factors underlying the 1998 Index of Economic Freedom are listed in Table A1.9

Table A1.9 Heritage Foundation / Wall Street Journal: Index of Economic Freedom

- 1 Trade:
 - What is the average tariff rate?
 - Are there any significant non-tariff barriers?
 - Is there corruption in the customs service?
 - 2 Taxation(*)
 - What is the top income tax rate?
 - What tax rate applies to the average income level?
 - What is the top corporate tax rate?
 - What other taxes exist?
 - 3 Government Intervention
 - What is the government consumption level as a percentage of the economy?
 - To what extent does the government own businesses and industries?
 - How much of the economy's output is produced by the government?
 - 4 Monetary Policy
 - What is the average inflation rate from 1985 to 1994?
 - What is the average inflation rate for 1995?
 - 5 Capital Flows and Foreign Investment
 - Does the country have an investment code?
 - Does it provide 100 percent foreign ownership?
 - Are these restrictions on which industries and companies foreign investors can invest in?
 - Are these restrictions and performance requirements on foreign companies?
 - Can foreigners own land?
 - Are foreign and domestic companies treated the same under the law?
 - Does the country allow foreign companies to repatriate their earnings?
 - Can foreign companies receive local financing?
 - 6 Banking
 - Does the government own any banks?
 - Can foreign banks open branches and subsidiaries?
 - Does the government influence the allocation of credit?
 - Are banks free to operate without government regulations such as deposit insurance?
 - Are banks free to offer all types of financial services like buying and selling real estate, securities and insurance policies?
 - 7 Wage and Price Controls
 - Does the government have a minimum wage?
 - Are businesses free to set their own prices without government influence?
 - Does the government set prices for any products?
 - If so, to what extent?
 - Does the government provide subsidies to businesses to affect prices?
 - 8 Property Rights
 - Is the legal system free from government influence?
 - Is there a commercial code defining contracts?
 - Does the country allow foreign arbitration of contract disputes?
 - Can property be expropriated by the government?
 - Is there corruption within the judiciary?
 - Are there major delays in receiving judicial decisions?
 - Is private property legally granted and protected?
 - 9 Regulation
 - Is a license required to operate a business?
 - Is it easy to obtain a business license?
 - Is there corruption within the bureaucracy?
 - Does the government force businesses to subscribe to strict established work weeks, paid vacations, maternity leaves, etc.?
 - Does the government force businesses to subscribe to strict environmental, consumer safety, and worker health regulations?
 - Does the existence of regulations pose a burden on business? To what extent?
 - 10 Black Market
 - Is there a significant level of a country's labor supplied on the black market?
 - Is there a significant level of a country's transportation supplied on the black market?
 - Is there a significant level of a country's agricultural production supplied on the black market?
 - Is there a significant level of a country's manufacturing supplied on the black market?
 - Is there a significant level of a country's services supplied on the black market?
 - Is there a significant level of piracy of intellectual property in the black market?
 - Is there a significant level of smuggling in the country?
- (*) The taxation index is itself the average of two sub-indices, one on income taxes and another one on corporate taxes.

A1.10 Political Risk Services (PRS)

The PRS group is an affiliate of Investment Business with Knowledge (IBK), a United States-based corporation providing up-to-date country information for international business. PRS was founded in 1980 and is headquartered in Syracuse, New York. As of May 1999 can be reached at <http://www.prsgroup.com>.

Since 1982, PRS produces the International Country Risk Guide (ICRG) which provides assessments of a political, economic and financial risks in a large number of developed and developing countries. These assessments are based on the analysis of a worldwide network of experts, and is subject to a peer review process at subject and regional levels to ensure the coherence and comparability across countries. In this paper we use data from the 1998 edition of the International Country Risk Guide.

The ICRG assesses three major categories of risk: political (with 12 components), financial (5 components) and economic (6 components). We use components of the Political Risk Index, which report subjective assessments of the factors influencing the business environment in a particular country. Table A1.10 presents the different components of the political risk ratings.

Table A1.10 International Country Risk Guide: Political Risk Components

- 1 Government Stability**
Measures the government's ability to carry out its declared programs, and its ability to stay in office. This will depend on issues such as: the type of governance, the cohesion of the government and governing party or parties, the closeness of the next election, the government's command of the legislature, and popular approval of the government policies.
- 2 Socioeconomic Conditions**
Quantifies general public satisfaction with the government's economic policies. A range of factors, such as infant mortality, medical provision of housing or interest rates, enter into this category according to how important they are for each particular country.
- 3 Investment Profile**
Includes the risk to operations (scored from 0 to 4, increasing in risk); taxation (scored from 0 to 3), repatriation (scored from 0 to 3); repatriation (scored from 0 to 3) and labor costs (scored from 0 to 2). They all look at the government's attitude towards investment.
- 4 Internal Conflict**
Assess political violence and its influence on governance. Highest scores go to countries with no armed opposition, and where the government does not indulge in arbitrary violence, direct or indirect. Lowest ratings go to civil war torn countries. Intermediate ratings are awarded on the basis of the threats to the government and business: whether the acts of violence have a political objective or not, whether violent groups represent a sizeable minority or not, how well organized these groups are and how much popular support they receive, how frequent the act of violence are, and whether they are geographically limited or not.
- 5 External Conflict**
Rates both the risk for the government and for foreign investment. Measures may consist of trade restrictions, embargoes, geopolitical disputes, armed threats, border disputes, foreign supported insurgencies, and full scale warfare.
- 6 Corruption**
Measures corruption within the political system, which distorts the economic and financial environment, reduces the efficiency of government and business by enabling people to assume positions of power through patronage rather than ability, and introduces an inherent instability in the political system. The most common form of corruption met directly by business is financial corruption in the form of demands for bribes connected with import and export licenses, exchange controls, tax assessments, police protection or loans. This measure is also concerned with actual or potential corruption in the form of patronage, nepotism, job reservation, "favor-for-favor", secret party funding, and suspiciously close ties between politics and business. The major risk arising from corruption is that a major political scandal produces a popular backlash resulting in a fall or overthrow of the government, a major reorganizing or restructuring of the country's political institution, or at worst a breakdown in law and order, rendering the country ungovernable. One possible leading indicator for political corruption is the
- 7 Military in Politics**
The military are not elected by anyone, so their participation in government, either direct or indirect, reduces accountability and therefore represents a risk. The threat of military intervention might lead as well to an anticipated potentially inefficient change in policy or even in government. It also works as an indication that the government is unable to function effectively and that the country has an uneasy environment for foreign business.
- 8 Religion in Politics**
Religious tensions may stem from the domination of society and/or governance by a single religious group that seeks to replace civil law by religious law and to exclude other religions from the political and/or social process. The risk involved here range from inexperienced people imposing inappropriate policies though civil dissent to civil war.
- 9 Law and Order**
The Law sub-component is an assessment of the strength and impartiality of the legal system, while the Order sub-component is an assessment of popular observance of the law (they are assessed separately).
- 10 Ethnic Tensions**
Measures tensions attributable to racial, nationality, or language divisions, gauging how intolerant, unwilling to compromise the different groups might be.
- 11 Democratic Accountability**
Quantifies how responsive government is to its people, on the basis that the less response there is the more likely is that the government will fall, peacefully or violently. It includes not only if free and fair elections are in place, but also how likely is the government to remain in power or remain popular.
- 12 Bureaucratic Quality**
Measures institutional strength and quality of the civil service, assess how much strength and expertise bureaucrats have and how able they are to manage political alternations without drastic interruptions in government services, or policy changes. Good performers have somewhat autonomous bureaucracies, free from political pressures, and an established mechanism for recruitment and training.

A1.11 Political Economic Risk Consultancy (PERC)

The Political and Economic Risk Consultancy specializing in strategic information and analysis for companies doing business in the countries in East and Southeast Asia. PERC was founded in 1976 and is headquartered in Hong Kong. As of May 1999, PERC can be reached at <http://www.asiarisk.com/perc.html>.

PERC has conducted three surveys of expatriate business managers in the East Asia region. The results of these surveys were published under the titles "Corruption in Asia in 1998" (from Asian Intelligence Issue #507 April 1, 1998), "Transparency Problems In Asia" (from Asian Intelligence Issue #498, November 19, 1997), and "Shortcomings of the Media in Asia" ([PUBLICATION INFO]). Based on the average responses in these surveys, PERC has produced country ratings. In this paper, we use data from each of these three surveys.

Corruption in Asia in 1998

In this survey, foreign managers working within the East Asia region were questioned about their perception of corruption, the quality of the legal system, and the professionalism and reliability of the police and judiciary. We have obtained their data on corruption for 12 countries, based on a total of 427 responses. With respect to corruption, respondents were asked "To what extent does corruption exist in a way that detracts from the business environment for foreign companies?".

Transparency Problems in Asia

In this survey, foreign managers in the East Asia region were asked about their perceptions of transparency in the business environment. A precise definition of transparency was not provided to respondents.

Quality of the Media

In this survey, businessmen (including foreign and local managers) in the East Asia region were asked their perceptions regarding the degree of censorship practiced, the quality of local media, access to foreign print media, and access to foreign broadcast media.

Table A1.11 Political Economic Risk Consultancy

1	Corruption
2	Transparency
3	Quality of the Media
	Degree of censorship practiced
	Quality of local media
	Access to foreign print media
	Access to foreign broadcast media

A1.12 Institute for Management Development (WCY)

The Institute for Management Development is an research and educational organization based in Lausanne, Switzerland. As of May 1999, it can be reached at <http://www.imd.ch>.

The Institute for Management Development has published the World Competitiveness Yearbook since 1987. Until 1996, this was a joint effort with the World Economic Forum. We use data from the 1998 edition of the World Competitiveness Yearbook.

The World Competitiveness Yearbook analyzes the competitive environment in 47 countries. It is based on both objective data and surveys of perceptions. The survey questions cover 4,000 local and foreign enterprises operating in the countries under analysis. Mean scores on the survey questions are reported in the yearbook for all countries. In Table A1.12 we list the questions included in the governance database.

Table A1.12 World Competitiveness Survey

Number	Question
Domestic economy	
1 y108	The parallel economy as an obstacle to business development
Internationalization	
2 y230	Protectionism as an obstacle to imports from abroad
3 y231	Controls on foreign investors ownership of companies
4 y232	Obstacles to foreign bidders on public contracts
Government	
5 y316	Real personal taxes as a burden to work initiative
6 y320	Improper practices in the public sphere
7 y321	Real corporate taxes as a burden to entrepreneurial activity
8 y324	Extent of tax evasion
9 y326	Legal framework as an obstacle to competitiveness
10 y328	Transparency: The government communicates its intentions successfully
11 y329	Political system as an obstacle to development
12 y330	Exposure of public service to political interference
13 y331	Bureaucracy as an obstacle to business development
14 y332	Effective implementation of government decisions
15 y333	Custom's administration as a burden to international trade
16 y336	Price controls
17 y340	Competition laws as an obstacle to fair competition
18 y341	Confidence in the fair administration of justice in the society
19 y343	Confidence among people that their person and property is protected
Finance	
20 y420	Legal Regulation of Financial Institutions
Science	
21 y720	Protection of intellectual property

A1.13 World Bank/University of Basel (WDR)

The World Bank is an international organization dedicated to eradicating poverty in the world. It was founded in 1945 and is located in Washington. As of May 1999, the World Bank can be reached at <http://www.worldbank.org>.

As background for the 1997 World Development Report (WDR) on the role of the state, the World Bank conducted a survey of approximately 3000 enterprises on 69 countries. This survey was designed to measure the perception of firms on the constraints that government actions impose on them. The results of this survey are in the public domain and may be downloaded from <http://www.worldbank.org/html/edi/gac/pubs.htm>.

In a separate effort, the same questionnaire was implemented by Aymo Brunetti and Beatrice Weder of the University of Basel, in five additional countries. Data and information on this research project can be found at: <http://www.unibas.ch/wwz/wifor/survey>

In the governance database, we combine information from these two sources and use the country average responses to the questions listed in Table A1.13.

Appendix 2: Components of Aggregate Governance Indicators

Table G1. Voice and Accountability

Code	Table (Appendix 1)	Row	Concepts measured
Representative sources			
EIU	A 1.5	3	Change in government, orderly transfer
		9	Legal system, transparency, fairness
FH	A 1.6	2	Civil Liberties: Freedom of speech, of assembly and demonstration, of religion, equal opportunity, of excessive governmental intervention
		1	Political Rights: free and fair elections, representative legislative, free vote, political parties, no dominant group, respect for minorities
		3	Free Press: Laws and practice, independence, and violations)
PRS	A 1.10	7	Military in politics: Reduces accountability
		11	Democratic accountability: Responsiveness of the government to its people, free and fair elections
WDR	A 1.13	3	Business is kept informed of important developments in rules and policies
		4	Business has a voice to express its concerns over changes in laws or policies
Non-representative sources			
FHNT	A 1.6	4	Political process: Elections, party configuration, political competition, and participation
		5	Civil society: Volunteerism, trade unionism, professional associations.
		6	Independent media
PERC			Media: independence and quality
WCY98	A 1.12		Transparency of the business environment
		10	Transparency: The government communicates its intentions successfully

Table G2. Political Instability and Violence

Code	Table (Appendix 1)	Row	Concepts measured
Representative sources			
DRI	A 1.3		Risks reduction of GDP by 1-4% due to:
		24	Major Urban Riot
		20	Major insurgency/rebellion
		19	Military coup
		21	Political terrorism
		22	Political assassination
		23	Civil war
EIU	A 1.5	1	Armed conflict, war
		2	Social unrest
		4	Terrorist threat, political violence
PRS	A 1.10	4	Internal Conflict: Political violence and governance, from no tolerance of arbitrary violence to civil war torn countries (from best to worse score)
		10	Ethnic tensions: Based on intolerance and prone to conflict
WDR	A 1.13	15	Terrorism as an obstacle to business development
		5	Likelihood of unconstitutional government changes
Non-representative sources			
BERI	A 1.1	1	Fractionalization of the political spectrum
		3	Fractionalization by ethnic, language and religious groups
		5	Restrictive (coercive) measures to retain power
		6	Organization/power of radical group
		9	Societal conflict: Strikes, Violence, Demonstrations
		10	Constitutional Changes, Assassinations, Guerrillas
CEER	A 1.2	19	Political stability
GCS97	A 1.8		
GCS98		3	Likelihood of dramatic change in institutions
		28	The highest power is always peacefully transferred
GCSA	A 1.8	3	Likelihood of dramatic changes in institutions
		68	Government coups or political instability as an obstacle to development
		67	Tribal conflict as an obstacle for business development

Table G3. Government Effectiveness

Code	Table (Appendix 1)	Row	Concepts measured
Representative sources			
EIU	A 1.5	6	Government policy (pro-business)
		7	Government/Institutional efficacy
		8	Red tape / bureaucracy
DRI	A 1.3	29	Institutional failure: Institutional rigidities that hinder bureaucratic efficiency
		28	Government ineffectiveness: Quality of the government's personnel
		27	Government instability: High turnover that lowers the quality of the government's personnel
PRS	A 1.10	1	Government stability: Its ability to carry out programs
		12	Bureaucratic quality: Civil service's institutional strength, free from political influences
WDR	A 1.13	18	Likelihood that when a government official acts against the rules, one can go to another official or a superior and get correct treatment
		19	Management time spent with bureaucrats
		20	The efficiency customs
		21	The general condition of roads you use
		22	The efficiency of mail delivery
		23	The quality of public health care provision
		24	Government efficiency in delivering services
		1	Predictability of changes in rules and laws
		2	Credibility of government's commitment to policies
		Non-representative sources	
BERI	A 1.1	21	Bureaucratic delays
FHNT	A 1.6	8	Government and administration: Decentralization and transparency
GCS98	A 1.8	4	Competence of public sector personnel relative to private sector
		9	Wasteful government expenditure
		29	Government commitments are honored by new governments
		5	Management time spent with bureaucracy
		6	Public service vulnerability to political pressure
GCSA	A 1.8	4	Competence of public sector personnel relative to private sector
		9	Wasteful government expenditure
		29	Government commitments are honored by new governments
		41	Strength and expertise of the civil service to avoid drastic interruptions in government services in times of political instability
WCY98	A 1.12	14	Effective implementation of government decisions
		13	Bureaucracy as an obstacle to business development
		12	Exposure of public service to political interference

Table G4. Regulatory Burden

Code	Table (Appendix 1)	Row	Concepts measured
Representative sources			
HFWSJ	A 1.9	9	Regulation (regulations that impose a burden on business)
		3	Government intervention in economy
		7	Wage/Price control
		1	Trade policy (tariff and no-tariff barriers to trade)
		5	Capital flows and foreign investment (financial regulations for foreigners)
		6	Banking (free from government intervention, financial regulations domestic)
DRI	A 1.3	13	Export regulations
		14	Import regulations
		15	Other regulations (regulatory burden)
		10	Legal restrictions on ownership of business by non-residents
WDR	A 1.13	11	Legal restrictions on ownership of equity by non-residents
		9	Regulations of starting new business as an obstacle to business development
		10	Price controls as an obstacle to business development
		11	Regulations on foreign trade as obstacle for business development
		12	Foreign currency regulations as obstacle for business development
		13	General uncertainty about the of costs of regulations as an obstacle to business development
Non-representative sources			
EBRD8	A 1.4	4	Price liberalization
		5	Trade regulations
			Competition policy
		8	Banking: Extensiveness of legal rules
		9	Banking: Effectiveness of legal regulations
		8	Securities: Extensiveness of legal rules
GCS98	A 1.8	9	Securities: Effectiveness of legal regulations
		10	Protection of domestic banks from foreign competition
		11	Barriers to entry in banking sector
		12	Interest rates are heavily regulated
		1	Participation of private sector in infrastructure projects
		15	Extent of market competition
		16	Effectiveness of anti-trust policies
		1	Negative impact of tariffs on costs and availability of equipment and materials
		2	Negative impact of hidden barriers to trade
		7	The tax system hinders business competitiveness

Table G4. Regulatory Burden (cont.)

Code	Table (Appendix 1)	Row	Concepts measured
Non-representative sources (cont.)			
GCSA	A 1.8	15	Extent of market competition
		16	Effectiveness of anti-trust policies
		39	Costs of uncertain rules, laws, or government policies
		1	Negative impact of tariffs on costs and availability of equipment and materials
		2	Negative impact of hidden barriers to trade
		47	Openness of public sector contracts to foreign investors
		48	Policies for dividend remittances as obstacles to development
		49	Dominance of state owned or state controlled enterprises
		50	Regulatory burden
		52	State interference in private business
		53	Regulatory discretionality (vagueness of regulations)
		54	The tax system hinders business competitiveness
		57	Protection of domestic banks from foreign competition
		59	Regulations for starting a business as an obstacle to business development
WCY98	A 1.12	60	Price controls as an obstacle to business development
		61	Regulations on foreign trade as an obstacle to business development
		62	Foreign currency regulations as an obstacle to business development
		63	Transfer costs associated with exporting capital as an obstacle to business development
		64	General uncertainty on costs of regulations as an obstacle to business development
		20	Legal regulation of financial institutions
		2	Protectionism as an obstacle to imports from abroad
		3	Controls on foreign investors ownership of companies
		4	Obstacles to foreign bidders on public contracts
		11	Political system as an obstacle to development
		5	Real personal taxes as a burden to work initiative
		7	Real corporate taxes as a burden to entrepreneurial activity
		9	Legal framework as an obstacle to competitiveness
15	Custom's administration as a burden to international trade		
16	Price controls		
17	Competition laws as an obstacle to fair competition		

Table G5. Rule of Law

Code	Table (Appendix 1)	Row	Concepts measured
Representative sources			
DRI	A 1.3	18	Losses and Costs of Crime
		26	Kidnapping of Foreigners
		9	Enforceability of private contracts
		8	Enforceability of government contracts
EIU	A 1.5	10	Corruption in banking
		11	Crime
HFWSJ	A 1.9	10	Black Market
		8	Property Rights
PRS	A 1.10	9	Law and order tradition
WDR	A 1.13	6	Theft and crime (now)
		7	Confidence in authority to secure property (now)
		8	Unpredictability of the judiciary (now)
		14	Crime and theft as obstacles to business
Non-representative sources			
BERI	A 1.1	12	Enforceability of contracts
CEER	A 1.2	6	Rule of Law
FHNT	A 1.6	7	Rule of law
GCS98	A 1.8		
GCS97		8	Extent of tax evasion
		31	Costs of organized crime for business
		30	Police effectiveness in safeguarding personal security
		14	Intellectual property protection
		23	Compliance with court rulings and /or arbitration awards
		20	Legal system effectiveness at enforcing commercial
		19	Independence of the judiciary from interference by the government and/or parties to the dispute
		26	Private business has recourse to independent and impartial courts for challenging the legality of government actions
		27	Likelihood of winning a court case filed against the government
		20	Legal system effectiveness at enforcing commercial contracts
		22	Private business capacity to file lawsuits at independent and impartial courts against government
		25	Citizens' willingness to accept legal means to adjudicate disputes rather than depending on physical force or illegal means

Table G5. Rule of Law (cont.)

Code	Table (Appendix 1)	Row	Concepts measured		
Non-representative sources (cont.)					
GCSA	A 1.8	20	Legal system effectiveness at enforcing commercial contracts		
		26	Private business has recourse to independent and impartial courts for challenging the legality of government actions		
		36	Private business can readily file and try lawsuits against other business, foreign or domestic, at independent and impartial courts		
		25	Citizens' willingness to accept legal means to adjudicate disputes rather than depending on physical force or illegal means		
		31	Costs of organized crime for business		
		44	Costs of petty crime and theft for business		
		30	Police effectiveness in safeguarding personal security		
		8	Extent of tax evasion		
		65	<i>Crime and theft as an obstacle to business development</i>		
		WCY98	A 1.12	1	The parallel economy as an obstacle to business development
				8	Extent of tax evasion
				18	Confidence in the fair administration of justice in the society
				19	Confidence among people that their person and property is protected
21	Protection of intellectual property				

Table G6. Graft

Code	Table (Appendix 1)	Row	Concepts measured
Representative sources			
DRI	A 1.3		Corruption among public officials, effectiveness of anticorruption initiatives
EIU	A 1.5	10	Corruption among public officials
PRS	A 1.10	6	Corruption in the political system as a "threat to foreign investment"
WDR	A 1.13	17	Frequency of "additional payments" to "get things done"
		15	Corruption as "obstacle to business"
Non-representative sources			
BERI	A 1.1	2	Mentality regarding corruption
CEER	A 1.2		Effect of corruption on "attractiveness of country as a place to do business"
FHNT	A 1.6		Perceptions of corruption in civil service, business interests of policymakers
GALLUP GCS98			Frequency of "cases of corruption" among public officials
GCS97	A 1.8	17	Irregular, additional payments connected with import and export permits, business licenses, exchange controls, tax assessments, police protection or loan applications (GCS98 and GCS97 for 5 additional countries)
		24	Frequency of "irregular payments" to officials and judiciary
GCSA	A 1.8	17	Irregular, additional payments connected with import and export permits, business licenses, exchange controls, tax assessments, police protection or loan applications
		66	Corruption as an obstacle to business development
PERC			Effect of corruption on business environment for foreign companies
WCY98	A 1.12	6	Improper practices in the public sphere

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