Governance Matters IV: Governance Indicators for 1996-2004

Daniel Kaufmann, Aart Kraay, and Massimo Mastruzzi

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Abstract: This paper presents the latest update of our aggregate governance indicators, together with new analysis of several issues related to the use of these measures. The governance indicators measure the following six dimensions of governance: (i) voice and accountability; (ii) political Instability and violence; (iii) government effectiveness; (iv) regulatory quality; (v) rule of law, and, (vi) control of corruption. They cover 209 countries and territories for 1996, 1998, 2000, 2002, and 2004. They are based on several hundred individual variables measuring perceptions of governance, drawn from 37 separate data sources constructed by 31 organizations. We present estimates of the six dimensions of governance for each period, as well as margins of error capturing the range of likely values for each country. These margins of error are not unique to perceptions-based measures of governance, but are an important feature of all efforts to measure governance, including objective indicators. In fact, we provide examples of how individual objective measures provide an incomplete picture of even the quite particular dimensions of governance that they are intended to measure.

We also analyze in some detail changes over time in our estimates of governance; provide a framework for assessing the statistical significance of changes in governance; and suggest a simple rule of thumb for identifying statistically significant changes in country governance over time. The ability to identify significant changes in governance over time is much higher for our aggregate indicators than for any individual indicator. While we find that the quality of governance in a number of countries has changed significantly (in both directions), we also provide evidence suggesting that there are no trends, for better or worse, in global averages of governance. Finally, we interpret the strong observed correlation between income and governance, and argue against recent efforts to apply a discount to governance performance in low-income countries.

The data, as well as a web-based graphical interface, are available at: www.worldbank.org/wbi/governance/govdata/. The Appendices and a synthesis of the paper are available at: www.worldbank.org/wbi/governance/pubs/govmatters4.html.

1. Introduction

This paper presents the latest update of our aggregate governance indicators, together with new results on the relative importance of perceptions-based and objective indicators; the significance of measured changes over time in governance; and the role of per capita income in cross-country governance comparisons. The governance indicators measure the following six dimensions of governance: (i) voice and accountability; (ii) political Instability and violence; (iii) government effectiveness; (iv) regulatory quality; (v) rule of law, and, (vi) control of corruption. They cover 209 countries and territories for 1996, 1998, 2000, 2002, and 2004. The indicators are based on several hundred individual variables measuring perceptions of governance, drawn from 37 separate data sources constructed by 31 different organizations. We assign these individual measures of governance to categories capturing key dimensions of governance, and use an unobserved components model to construct six aggregate governance indicators in each period. We present the point estimates of the dimensions of governance as well as the margins of errors for each country and period.

We begin by describing the data used to construct this round of the governance indicators in Section 2. As discussed in more detail below, we have incorporated information from a substantial number of new data sources, relative to our last set of indicators for the period 1996-2002. Since some of these data sources are also available in earlier periods, we have updated our governance estimates for this earlier period as well. As we have emphasized in our previous work, an attractive feature of the aggregation method we use is that it provides us with not only estimates of governance for each country, but also with measures of the precision or reliability of these estimates, for every country, indicator, and year. The addition of data has improved the precision of our governance indicators relative to previous years. However, the margins of error associated with estimates of governance are not trivial. This implies that cross-country comparisons of levels of governance should continue to be made with due caution. We also underscore that these margins of error are not unique to perceptions-based measures of governance, but are an important feature of all efforts to measure governance, including objective indicators.

Reformers in many governments as well as civil society and investors increasingly view governance as key for development and the investment climate, which in turn has increased the demand for monitoring the quality of governance in a country over time. Further, aid donors have also come to the view that aid flows have a stronger impact on development in countries with good institutional quality, and thus increasingly utilize measurable performance indicators —within which governance features prominently—for monitoring, evaluation and decision—making at a country level. In light of this, it is also important to measure and interpret trends over time in governance. This we address in Section 3 of the paper, where we discuss how the inevitable measurement error in both subjective and objective indicators of governance affects the conclusions that can be drawn from observed changes over time in such measures.

The most basic insight is that measurement error should temper the conclusions about actual changes in governance based on changes in any individual indicator, while aggregate indicators such as those we develop here can be more informative about changes over time in governance. In addition to this basic insight, we highlight two opposing forces that affect the interpretation of changes over time. On the one hand, if governance itself changes very slowly over time, then observed changes in the data will overstate the magnitude of actual changes in governance. On the other hand, if measurement error is also very persistent over time, then observed changes in the data will understate changes in governance. By providing a framework for assessing the statistical significance of changes in governance over time, we show how these key parameters can be estimated and argue that the former effect dominates, suggesting that changes over time in the governance indicators should be interpreted with some caution. We suggest a simple rule of thumb for identifying statistically significant changes in country governance over time, and find that governance in a number of countries has either significantly improved or deteriorate over the relative short eightyear time span covered by our data. We also document that there is little evidence of any trends – for better or worse – in global averages of governance.

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¹ For example, the International Development Association (the highly concessional loan window of the World Bank) relies heavily on the World Bank's Country Policy and Institutional Assessment, one of the ingredients in our aggregate governance indicators. The U.S. government's Millennium Challenge Account bases country eligibility in part on five of our governance indicators.

The margins of error we emphasize are not unique to the perceptions data we use to construct our aggregate governance indicators: measurement error is pervasive among all measures of governance and institutional quality. An advantage of our measures of governance is that we are able to be explicit about the accompanying margins of error, whereas these are most often left implicit with objective measures of governance. In Section 4 of this paper we investigate in more detail discrepancies between subjective and objective measures of very specific dimensions of the regulatory environment. We show that firms' survey responses about their tax burden, and the ease of starting a new business, reflect not only the *de jure* regulations governing these issues, but also the overall institutional and governance environment in which these regulations are applied. This finding emphasizes the importance of relying on a full range of measures of governance, and not exclusively subjective or objective measures, when assessing the quality of governance across countries.

In the final section of the paper we turn to two issues that arise when interpreting the strong positive correlation observed between measures of governance and per capita incomes. One critique of subjective or perceptions-based governance measures is that they are subject to "halo effects" - respondents rating countries might provide good governance scores to richer countries simply because they are richer. While this is certainly a possible source of bias, we show that it will lead to a significant upward bias in the correlation between income and governance only if these halo effects are implausibly strong. The second issue concerns the interpretation of the quality of governance in low income countries, with particular application to Sub-Saharan Africa, where the international community is rightly focusing its attention in the effort to meet the Millennium Development Goals of halving poverty by 2015. Although countries in the region on average tend to score quite poorly on most measures of governance, some observers have argued that this poor governance performance should be discounted because per capita incomes in the region are also low. Implicit in this argument is the view that there is a strong causal impact of incomes on governance. However, we argue that existing evidence does not support a strong causal channel operating in this direction – most of the correlation between governance and per capita incomes reflects causation from the former to the latter. In light of this we suggest that it would be inappropriate to divert attention from the weak average governance performance of the region (while also recognizing the individual countries that are strong governance

performers in the region), simply because the region is poor. While we focus on Africa because of the recent emphasis in the aid community on the region, the fallacy of discounting the extent of misgovernance in a country or region due to low incomes applies more generally to any setting with poor governance and low incomes.

We conclude by summarizing the key findings and noting the policy implications of our work.

2. Updated Governance Indicators for 1996-2004

In this section we briefly describe the update of our governance indicators for 2004, as well as some minor backwards revisions to the indicators for 1996-2002. Our basic methodology has not changed from past years, and a detailed discussion can be found in Kaufmann, Kraay, and Mastruzzi (2004). We construct measures of six dimensions governance:

- 1. Voice and Accountability measuring political, civil and human rights
- Political Instability and Violence measuring the likelihood of violent threats to, or changes in, government, including terrorism
- 3. Government Effectiveness measuring the competence of the bureaucracy and the quality of public service delivery
- 4. Regulatory Burden measuring the incidence of market-unfriendly policies
- 5. Rule of Law measuring the quality of contract enforcement, the police, and the courts, as well as the likelihood of crime and violence
- 6. Control of Corruption measuring the exercise of public power for private gain, including both petty and grand corruption and state capture

In Appendix D we define these six dimensions of governance in more detail.

2.1 Data and Methodology

As in past years we rely on a large number of individual data sources which provide us with information on perceptions of governance. These data sources consist

of surveys of firms and individuals, as well as the assessments of commercial risk rating agencies, non-governmental organizations, and a number of multilateral aid agencies. A full list of these sources is presented in Table 1. For this round of the data, we rely on a total of 352 individual variables measuring different dimensions of governance. These are taken from 37 different sources, produced by 31 different organizations. Appendices A and B provide a detailed description of each data source, and document how we have assigned individual data sources to our six aggregate indicators.

These 37 sources include 12 new data sources for 2004, indicated with asterisks in Table 1. The new sources come from a diverse set of organizations. Three of these come from international organizations, in the form of country assessments prepared by economists at the African Development Bank, the Asian Development Bank, and the United Nations Economic Commission for Africa. Another three are from commercial consultancies: IJET Travel Consultancies, Merchant International Group, and Political and Economic Risk Consultancy.² The remaining six come from a mix of NGOs and universities: Bertelsmann Foundation, Brown University Center for Public Policy, the Countries at the Crossroads publication of Freedom House, Fundar, the International Research and Exchanges Board, and Vanderbilt University.³ Several of these new sources also have data available prior to 2004. In order to make full use of this additional data, as well as to improve the comparability of the governance indicators over time, we have revised our previous indicators for all periods to incorporate these sources. Typically the addition of these sources has very little effect on our past indicators, but it does make them more comparable over time.

It is also important to note that our data sources reflect the perceptions of a very diverse group of respondents. Several of our data sources are surveys of individuals or domestic firms with first-hand knowledge of the governance situation in the country. These include the World Economic Forum's Global Competitiveness Report, the Institute for Management Development's World Competitiveness Yearbook, the World Bank's

² The last of these, Political and Economic Risk Consultancy, is not quite a "new" source as it appeared in our 1998 and 2000 indicators in the past, but not in the 2002 and 2004 indicators. ³ It is worth noting that we do not use the Transparency International Corruption Perceptions Index (CPI) as a component of our aggregate corruption indicator. This is because the CPI is itself an aggregate of a number of individual sources, all of which we have already included in our corruption indicator.

business environment surveys, and a variety of global polls of individuals conducted by Gallup, Latinobarometro, and Afrobarometro. We also capture the perceptions of country analysts at the major multilateral development agencies (the European Bank for Reconstruction and Development, the African Development Bank, the Asian Development Bank, the UN Economic Commission for Africa, and the World Bank), reflecting these individuals' in-depth experience working on the countries they assess. Other data sources from NGOs (such as Amnesty International, Reporters Without Borders, and Freedom House), as well as commercial risk rating agencies (such as EIU and DRI) base their assessments on a global network of correspondents typically living in the country they are rating.

As in our past work, we combine the many individual data sources into six aggregate governance indicators. The premise underlying this statistical approach should not be too controversial - each of the individual data sources we have provides an imperfect signal of some deep underlying notion of governance that is difficult to observe directly. This means that as users of the individual sources, we face a signalextraction problem – how do we isolate the informative signal about governance from each individual data source, and how do we optimally combine the many data sources to get the best possible signal of governance in a country based on all the available data? In Appendix D we describe in detail the statistical procedure we use to perform this aggregation, known as the unobserved components model. The main advantage of this approach is that the aggregate indicators are more informative about unobserved governance than any individual data source. Moreover, the methodology allows us to be explicit about the precision – or imprecision – of our estimates of governance in each country. As we discuss in more detail throughout the paper, this imprecision is not a consequence of our reliance on subjective or perceptions data on governance – rather imprecision is an issue that should be squarely addressed in all efforts to measure the quality of governance.

2.2 Estimates of Governance 1996 - 2004

In Appendix C we report the aggregate governance indicators, for all countries, for each of the six indicators and for all five periods. The governance estimates are normally distributed with a mean of zero and a standard deviation of one in each period. This implies that virtually all scores lie between -2.5 and 2.5, with higher scores

corresponding to better outcomes.⁴ This also implies that our aggregate estimates convey no information about trends in global averages of governance, but they are of course informative about changes in individual countries' relative positions over time. Below we discuss the information in our individual indicators regarding trends over time in global averages of governance.

Table 2 summarizes some of the key features of our governance indicators. In the top panel we show the number of countries included in each of the six indicators and four periods. In 2004 the Government Effectiveness indicator covers the largest set of 209 countries, with the other sources covering between 204 and 208 countries. Over time, there has been a steady increase in the number of sources included in each of our indicators. This increase in the number of data sources is reflected in an increase in the median number of sources available per country, which, depending on the governance component, ranges from four to six in 1996, and from eight to eleven in 2004. Thanks to the increase in sources, the proportion of countries in our sample for which our governance estimates are based on only one source has also declined considerably, to an average of only 7 percent of the sample in 2004.

An important consequence of this expanding data availability is that the margins of error for the governance indicators have declined, as shown in the final panel of Table 2. Depending on the governance component, in 1996 the average (for all countries) of the standard error⁶ ranged from 0.26 to 0.36, while in 2004 the corresponding range is from 0.18 to 0.27. These declines in margins of error illustrate the benefits in terms of precision of constructing composite indicators based on as much information as possible. Of course, since our aggregate indicators combine information from all of these sources, they have greater precision than any individual underlying data source. Looking across all five time periods, the median standard error of the individual data

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⁴ For a handful of cases, individual country ratings can exceed these boundaries when estimates of governance are particularly high or low.

⁵ A few of the entities covered by our indicators are not fully independent states (Puerto Rico, Hong Kong, West Bank/Gaza, Martinique, and French Guyana). A handful of very small independent principalities (Monaco, San Marino, and Andorra) are also included. For stylistic convenience all 209 entities are often referred in this paper as "countries".

⁶ As described in detail in Appendix D, our outcome of aggregation procedure is a distribution of possible values of governance for a country, conditional on the observed data for that country. The mean of this conditional distribution is our estimate of governance, and we refer to the standard deviation of this conditional distribution as the "standard error" of the governance estimate.

sources for the governance indicators was 0.58, with an interquartile range from 0.45 to 0.84.

Despite this increase in precision as a benefit of aggregation, the margins of error for the aggregate governance indicators are non-trivial. We illustrate this point in Figure 1. In the two panels of Figure 1, we order countries in ascending order according to their point estimates of governance in 2002 on the horizontal axis, and on the vertical axis we plot the estimate of governance and the associated 90% confidence interval described above. We do this for two of the six governance indicators, political stability, and control of corruption. The size of these confidence intervals varies across countries, as different countries appear in different numbers of sources with different levels of precision. The resulting confidence intervals are substantial relative to the units in which governance is measured. To emphasize this point, the horizontal lines in Figure 1 delineate the quartiles of the distribution of governance estimates. Even though the differences between countries in the bottom and top quartiles are substantial, the number of countries that have 90% confidence intervals that lie entirely within a given quartile is not large. From Figure 1 it should also be evident that many of the small differences in estimates of governance across countries are not likely to be statistically significant at reasonable confidence levels. For many applications, instead of merely observing the point estimates, it is therefore more useful to focus on the range of possible governance values for each country (as summarized in the 90% confidence intervals shown in Figure 1).

As an illustration of the importance of margins of error in governance comparisons, consider the eligibility criteria for the U.S. Millennium Challenge Account (MCA). Countries' eligibility for grants from the MCA is determined by their relative positions on 16 different measures of country performance. One of these is our Control of Corruption indicator, where countries are required to score above the median among all potentially eligible countries in order to qualify for MCA funding. As we have noted elsewhere, this procedure risks misclassifying countries around the median because the margins of error for such countries often includes the median score. In contrast, for countries near the top and the bottom of potential MCA beneficiaries, we can be quite confident that they do in fact fall above and below the median, respectively.

Table 3 illustrates the role of margins of error in this calculation. We focus attention on the set of 70 countries identified as potential MCA beneficiaries for the 2005 fiscal year. For these countries, we calculate the median score on our Control of Corruption indicator for 2004. Next, using our governance estimates and their accompanying standard errors, for each country we calculate the probability that the country's level of corruption falls above the median for this group. The results of this calculation are summarized in the first column of Table 3. For 17 poorly-performing countries, or about one-quarter of the sample, there is less than a 10 percent chance that corruption in these countries actually falls above the median. For another 23 countries, or about a third of the sample, we are quite confident that corruption in these countries falls above the median, with a probability of at least 90 percent. In contrast, for the remaining 30 countries, the probability that they fall above the median is somewhere between 10 percent and 90 percent, and so we have less confidence that these countries are correctly classified. If we relax our standards of significance to 25 percent and 75 percent, we find that only about 20 countries out of 70, or 29 percent of countries fall in this zone of uncertainty.8

This example illustrates the importance of taking margins of error into account when making governance comparisons across countries. Our aggregate governance indicator is able to identify with a fairly substantial degree of confidence groups of countries where the probability that corruption is above or below the median is large. But at the same time there remains an intermediate group of countries where we can be less confident that they are correctly classified as being "good" or "bad" performers based on their point estimates of governance alone.

It is also important to note how this example illustrates the benefit of aggregating many sources of data on corruption, as we do. The remaining columns of Table 3 show perform the same calculations, but relying on successively less precise measures of governance. The second and third columns use our own Control of Corruption

⁷ See http://www.mcc.gov/ for details on the MCA eligibility criteria.

⁸ We first performed these MCA-related calculations in late 2002, shortly after the announcement of the initial MCA eligibility criteria. At that time, using the older version of our 2000 Control of Corruption indicator, we found that 23 out of 61 countries (or 38 percent of countries) fell in this intermediate zone. This much higher proportion of intermediate countries reflected the fact that the old version of or 2000 Control of Corruption indicator relied on substantially fewer data sources than we now have available to us for both 2000 and 2004.

indicators for 2000 and 1996. These indicators cover fewer countries, and because they rely on a smaller set of sources available at the time, the margins of error for individual countries are higher than in 2004 (see the standard errors reported in the last row). In 1996, for example, 35 percent of the countries for which data is available fall in the intermediate category where the probability that they fall in the top half of the sample is between 25 percent and 75 percent – as opposed to only 29 percent of countries falling in this grey area with the 2004 indicator. The last three columns of the table show the same information for three of our individual sources, WMO, DRI, and GCS. These individual sources have substantially higher margins of error than our aggregate indicators, and in the case of DRI and GCS also cover substantially fewer countries. In addition, we see that there is greater uncertainty about country rankings when relying on just a single indicator: for GCS, for example, the fraction of countries falling in the intermediate category rises to 40 percent. This illustrates the benefit of relying on aggregate indicators which are more informative than individual indicators when trying to classify countries according to their levels of governance.

2.3 Changes over Time in Governance at the Country Level

We now turn to the changes over time in our estimates of governance in individual countries. Figure 2 illustrates these changes for two selected governance indicators over the period 1996-2004. In both panels, we plot the 2004 score on the horizontal axis, and the 1996 score on the vertical axis. We also plot the 45-degree line, so that countries above this line correspond to declines in the quality of governance, while countries below the line correspond to improvements in governance. The first feature of this graph is that most countries are clustered quite close to the 45-degree line, indicating that changes in our estimates of governance in these countries are relatively small over the eight-year period covered by the graph. A similar pattern emerges for the other four dimensions of governance (not shown in Figure 2), and, not surprisingly the correlation between current and lagged estimates of governance is even higher when we consider shorter time periods.

However, our estimates of governance do change substantially for some countries in some periods. For example, from 1996 to 2004, countries like Cote d'Ivoire, Zimbabwe, Nepal and the Central African Republic show substantial declines in, among others, the Voice and Accountability measure, while countries like Argentina and Sierra Leone deteriorate on Regulatory Quality, and Zimbabwe, Cyprus, Israel, and Moldova decline on Control of Corruption measures, contrasting countries like Latvia and Bahrain which show substantial improvements in Control of Corruption, while Croatia, Nigeria, and Bosnia and Herzegovina improve in Voice and Accountability, for instance. ⁹

In Figure 2 we have labeled those countries for which the change in estimated governance over the 1996-2004 period is sufficiently large that the 90% confidence intervals for governance in the two periods do not overlap. While this is not a formal test of the statistical significance of changes over time in governance, it is a very simple and transparent rule of thumb for identifying large changes in governance. In the next section of this paper we will discuss in more detail how to assess the statistical significance of changes in governance. We also note that there are of course more "large" changes in governance if we relax our standards to asking whether, say, 75 percent confidence intervals overlap or not. In this case, we would identify an average of 35 large changes per indicator, as opposed to an average of 15 per indicator for non-overlapping 90 percent confidence intervals.

For the rest of this subsection we provide details on why our estimates of governance have changed for those countries where changes are large according to this simple rule of thumb. In Table 4 we provide more detail on all of the large changes in our six governance indicators over the period 1996-2004. The first three columns report the level of governance in the two periods, and the change. The remaining columns provide information on the two main potential sources of changes in our estimates of governance for a particular country: (1) changes over time in individual data sources' assessments

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⁹ Focusing on the shorter 1998-2004 period (yet one which has a larger country overlap) also yields a number of countries that have undergone large changes, such as the decline exhibited in Control of Corruption, Government Effectiveness and Rule of Law for West Bank/Gaza (for which there was no data in 1996), Ivory Coast, Zimbabwe and Eritrea, and the deterioration in Voice and Accountability during the period in Nepal, Kyrgyz Republic, and Russia, contrasting the improvements in Control of Corruption in the Slovak Republic, Croatia, Serbia, Bulgaria, Madagascar and Colombia, or in Political Stability/Violence in Rwanda, Sierra Leone, Angola, Turkey, South Africa and Senegal, for instance.

of governance, and (2) changes due to the addition of new data sources for a country. Consider first changes over time in the underlying data sources that are available in both periods for a country. In the column labeled "Agree" we report the number of sources available in both periods which move in the same direction as the aggregate indicator. The columns labeled "No Change" and "Disagree" report the number of sources on which that country's score does not change or moves in the opposite direction to the aggregate indicator. For each country we also summarize the extent to which changes in the individual sources agree with the direction of change in the aggregate indicator by calculating the "Agreement Ratio", or "Agree" / ("Agree" + "Disagree").

The agreement ratio is quite high for countries with large changes in governance. Averaging across all countries and indicators, we find an average agreement ratio of 0.86 for the period 1996-2004, as reported in Table 5. For the six indicators the agreement ratio ranges from a low of 0.76 for Government Effectiveness to a high of 0.93 for Voice and Accountability. This provides some confidence that for countries with large changes in our governance estimates, these changes are being driven primarily by changes in underlying sources. In fact, there are only three cases where the agreement ratio is less than one-half: Indonesia and Zambia for Regulatory Quality, and Iceland for Control of Corruption.¹⁰ It is also worth noting that the agreement ratios for large changes in governance are much higher than the agreement ratios for all changes in governance. This can also be seen in Table 5 which computes the same agreement ratio, but for all countries over the period 1996-2004. The agreement ratio averages 64 percent, suggesting that for the more typical smaller changes in our governance estimates, there is much more disagreement across individual sources about the direction of the change than there is for large changes.

The remaining columns of Table 4 measure how the addition of new sources of governance data in 2004 contributes to the change in the estimate of governance for a country. We do this by first calculating what our estimate of governance in the second

¹⁰ For Indonesia, the large decline in the overall score was due to a fairly substantial decline in one underlying source, HER, as well as the addition of new sources in 2004 that provided lower scores than the ones available in both periods. In the case of Iceland, the large improvement seems to be driven entirely by Iceland's big improvement, from an unusually low base, in the score assigned to it by GCS in 1996. Finally, in the case of Zambia the three sources that move in the opposite direction from the aggregate indicator do so only very slightly and these very small improvements are strongly offset by worsening in the remaining two sources.

period would have been had we used only sources available in both periods. We also calculate what our estimate of governance would be if we were to rely only on the new sources added in the second period relative to the first period. If this latter score is higher (lower) than the former, then we know that the new data sources on average rate the country better (worse) than do the existing sources available in both periods, and this effect on its own will contribute to an improvement (decline) in estimated governance for the country. The overall score for the country in the second period is just a weighted average of these two scores. We report these two scores, and the accompanying weights, in the last four columns of Table 4.

Interestingly, and reassuringly, the addition of new sources does not appear to have very substantial effects on the changes over time in the governance estimates. To assess this, we have computed the absolute difference between the "balanced" score and the score based on new sources, and expressed this as a fraction of the absolute change in the overall governance estimate over the two periods. Averaging across all the entries in Table 4 gives a figure of 9 percent. Taken together, this evidence suggests that for the large changes in governance shown in this table, we can have a good deal of confidence that it is mostly driven by changes in the underlying sources on which the aggregate indicators are based. In contrast, we should be much more cautious in our interpretation of many of the smaller changes in our aggregate governance indicators.

2.4 Trends in Global Governance

We now examine the limited available evidence on trends in global averages of governance. As we have already noted, our aggregate governance indicators are not informative about trends in global averages because we have normalized these averages to zero in each period, as a choice of units. While the aggregate indicators are of course informative about the relative performance of individual (or groups of) countries, in order to assess trends in global governance we need to return to our underlying individual data sources.

¹¹ Of all the large changes we identify in this way, there is only one case where a data source was dropped: Israel, which was dropped by BERI in 2000. For all the remaining cases changes in the composition of data sources reflect only the addition of new sources.

In Table 6 we summarize trends in world averages in a number of our individual data sources. Most of the sources in this table are polls of experts, with data extending over the whole period 1996-2004. Only one of them, GCS, is a survey with sufficiently standard format to enable comparisons over this period of time. The first five columns present the average across all countries of each of the sources in each of the years. The underlying data have been rescaled to run from zero to one, and for each source and governance component, we report the score on the same question or average of questions that we use in the aggregate indicator. The next five columns report the standard deviation across countries for each source. The final column reports the t-statistic associated with a test of the null hypothesis that the world average score is the same in 1996 as in 2004.

The picture that emerges from Table 6 is sobering. There is very little evidence of statistically significant improvements in governance worldwide. The 22 eight-year changes reported here are divided exactly in half into 11 improvements and 11 declines in global averages. Interesting there are nine cases of statistically significant changes at the 10 percent level or better (t-statistics greater than 1.64 in absolute value), and these are split between three improvements and six declines. It is not clear how much importance ought to be ascribed to these trends in world averages. On the one hand, these statistics represent the only information we have on trends over time, and so they should be taken seriously. On the other hand, it is also clear that there is substantial disagreement among sources about even the direction of changes in global averages of governance. For now we cautiously conclude that we certainly do not have any evidence of any significant improvement in governance worldwide, and if anything the evidence is suggestive of a deterioration, at the very least in key dimensions such as regulatory quality, rule of law, and control of corruption.

3. Statistical Significance of Changes in Governance over Time

Reformers in many governments as well as civil society and investors increasingly view governance as key for development and the investment climate, which in turn has increased the demand for monitoring the quality of governance in a country over time. Further, aid donors have also come to the view that aid flows have a stronger impact on development in countries with good institutional quality. In light of this, it is important not only to measure levels, but also to assess trends over time in governance. The presence of measurement error in all types of governance indicators, including our own, makes assessing trends in governance a challenging undertaking. In this section we develop a formal statistical methodology, as well as some simple rules of thumb, for identifying changes in governance that are likely to be statistically and practically significant.

In our description of the data in the previous section we have emphasized the importance of measurement error in governance indicators, and its consequences for interpreting cross-country differences in measures of governance. We have also identified a limited number of episodes in which changes over time in our aggregate governance indicators are large relative to the associated margins of error. In this section of the paper we provide a more formal statistical analysis of changes over time in governance. At a most basic level, it should be clear that the presence of measurement error in the underlying data implies that we should be cautious about reading too much into observed changes in individual and composite measures of governance, both subjective and objective. In this section we formalize this common-sense notion and expand it to consider how persistence over time in both governance and measurement error affect the statistical inferences we can make about changes over time in governance from the available data.

3.1 Changes in Individual Indicators

It is useful to begin our discussion with the simplest possible example of how measurement error impacts our interpretation of changes over time in observed governance indicators, both subjective and objective. Suppose that we have only one source of governance data observed at two points in time, and we want to make

inferences about how governance has changed in a country. To keep notation as simple as possible, we suppress country subscripts and write the observed data at time t, y(t), as the sum of true unobserved governance in that period, g(t), and an error term capturing measurement error:

(1)
$$y(t) = g(t) + \varepsilon(t)$$
, $t=1,2$

As a choice of units, we assume that true governance has mean zero and standard deviation one, and that the error term has zero mean. For simplicity we assume that the variance of the error term is the same in both periods and is equal to σ^2 . Note that σ^2 is the noise-to-signal ratio in the observed governance data (the ratio of the variance of the error to the variance of unobserved governance). We also allow for the possibility that both governance and the error term are correlated over time, with correlations ρ and r, respectively. Finally we assume that both governance and the error term are normally distributed. With these simplifying assumptions, consider the problem of making inferences about the change in unobserved governance, g(t)-g(t-1), conditional on observing data y(t) and y(t-1) in the two periods. Using the fact that unobserved governance and the data are jointly normally distributed, we can use the properties of the multivariate normal distribution to arrive at the following expressions for the mean and variance of the change in governance, conditional on the observed data:

(2)
$$E[g(t) - g(t-1)|y(t), y(t-1)] = \frac{(1-\rho) \cdot (y(t) - y(t-1))}{1+\sigma^2 \cdot (1-r) - \rho}$$
$$V[g(t) - g(t-1)|y(t), y(t-1)] = \frac{2 \cdot (1-\rho) \cdot (1-r) \cdot \sigma^2}{1+\sigma^2 \cdot (1-r) - \rho}$$

It is natural to use this conditional mean as our best estimate of the change in governance, and the conditional variance as an indicator of the confidence we have in the estimate. This is in fact exactly analogous to how we obtain estimates of levels of governance and associated standard errors using the unobserved components model described in Appendix D.

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¹² The simple example here is a special case of a more general model we discuss below.

To interpret these expressions, consider first the case where there is no persistence in governance or in the error terms, i.e. ρ =r=0. In this case, our estimate of the change in governance is simply $\frac{y(t)-y(t-1)}{1+\sigma^2}$. In particular, we should take the observed change in the single source and scale it down by a factor of $\frac{1}{1+\sigma^2}$ to reflect the fact that the data measures governance with error. It is also clear from Equation (2) that the higher is ρ , the more we should discount observed changes in governance. Intuitively, if we knew that governance changes very slowly over time, then any observed change in the data is more likely to reflect changes in the error term, and so we should discount this observed change more heavily. In the limit where governance is perfectly correlated in the two periods, we would know for sure that any change observed in the data must reflect only fluctuations in the error term, and so we would completely discount the observed change in the data. That is, our estimate of the change in governance would be zero regardless of the observed change in the data.

The effect of persistence in the error terms works in the opposite direction: we should scale down the observed change in the data by less the larger is the correlation over time in the error terms. Again the intuition for this is simple – if we know that the error with which a given source measures governance is persistent over time, then any observed change in the source is likely to understate the true change in unobserved governance. As a result our best estimate of the change in governance will be larger than the observed change in the data. Interestingly, if the correlation in unobserved governance and the error term are equal to each other, i.e. ρ =r, then these two effects offset exactly and the discount applied to the observed change in governance is $\frac{1}{1+\sigma^2}$.

How much confidence should we have in the statistical significance of the change in unobserved governance based on the observed data? Suppose that we observe a change in the indicator equal to k standard deviations of the changes in this variable, i.e. $y(t) - y(t-1) = k \cdot \sqrt{2 \cdot \left(1 + \sigma^2 \cdot (1-r) - \rho\right)}$. Does this signal a significant change in governance? In order to test the null hypothesis that the change in governance is zero, we can construct the usual z-statistic associated with this

hypothesis, i.e. the ratio of the mean of the change in governance conditional on the data to the square root of the conditional variance, which simplifies to:

(3)
$$Z = \frac{E[g(t) - g(t-1)|y(t), y(t-1)]}{\sqrt{V[g(t) - g(t-1)|y(t), y(t-1)]}} = \frac{k}{\sigma} \cdot \sqrt{\frac{1-\rho}{1-r}}$$

Not surprisingly, the observed change in the data is more likely to signal a significant change in unobserved governance the larger is the observed change in the data (i.e. the larger is k), and the lower is the signal-to-noise ratio in the data (i.e. the smaller is σ). And building on the intuitions above, the observed change in the data is also more likely to signal a significant change in unobserved governance the lower is the persistence in unobserved governance, ρ , and the higher is the persistence in the error term, r.

Figure 3 puts some numbers to this simple calculation. We graph the number of standard deviations of the observed change in the data, k, on the horizontal axis, and we plot the z-statistic in Equation (3) on the vertical axis for different values of the key parameters. We set σ^2 =0.36, as this is the median value for the noise-to-signal ratio across all of the individual data sources we use to construct our six governance indicators in each of the five periods. In an earlier paper we have argued that the noiseto-signal ratio in objective measures of governance is likely to be at least as large as this. 13 The thin upward-sloping line traces out the z-statistic as a function of k for this value of the noise-to-signal ratio, but assuming that the correlation in governance and the error term are zero, i.e. ρ =r=0. The z-statistic is greater than the 90-percent critical value for changes in the observed data that are more than one standard deviation away from the mean change. This suggests that if there is no persistence in governance or in the error terms, quite a large proportion of observed changes in individual governance indicators would in fact signal a significant change in unobserved governance. In fact, if changes in the observed governance indicator are approximately normally distributed, the largest one-third of all absolute changes would signal changes in governance that are significant at the 90% level.

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¹³ See Kaufmann, Kraay and Mastruzzi (2004)

The bold upward-sloping line corresponds to the more empirically relevant case where there is persistence in both governance and the error terms. The line is drawn for the same noise-to-signal ratio as before, and in addition we assume that the correlation of unobserved governance over time is ρ =0.9 and the correlation in the error term is r=0.4. In the next subsection we show how these parameters can be estimated using our governance data, and find that these values are typical ones. In particular, we shall see shortly that unobserved governance tends to be highly persistent over the eight-year period spanned by our dataset, and although the error terms are also typically positively correlated over time they are much less so than governance. Based on the intuitions developed above, this suggests that much larger observed changes in governance indicators would be required to signal statistically significant changes in unobserved governance. This is exactly what we find. The bold line crosses the 90% critical value at k=2.5, indicating that only those observed changes in the data more than 2.5 standard deviations away from the mean would signal a statistically significant change in governance. Again, if changes in the observed governance indicators are normally distributed, this would imply that only the top one percent of all absolute changes would correspond to significant changes in governance. This in turn suggests that drawing conclusions about changes in governance based on changes in individual governance indicators should be done with an abundance of caution.

In Figure 4 we use *de jure* and *de facto* data on business entry (discussed in more detail in the next section) as an illustration of the difficulty of identifying statistically significant changes over time in governance using individual indicators. In this graph, we plot the change between 2003 and 2004 in the Global Competitiveness Survey question regarding the ease of business entry, against the change in the number of days required to start a business from the Doing Business project of the World Bank (see World Bank (2004)), taken over the same period. We interpret both of these measures as providing noisy signals of changes in the regulatory environment. From the discussion above, only the largest of these changes (in absolute value) are likely to signal statistically significant changes in underlying governance. In particular, if we take our representative assumptions regarding the persistence in governance and in the error terms, we saw that only the top one percent of changes in the observed indicators signal

¹⁴ We would like to thank Caralee McLiesh for kindly providing the unpublished regulation of entry data for 2003.

changes in governance that are significant at the 90 percent level. Even if we relax our standards of significance to 75 percent, only changes in the observed data that are more than 1.8 standard deviations away from the mean, or about the top seven percent of all changes, will signal significant changes in governance in each individual indicator. This translates to roughly five large changes per indicator. We have labeled the top five changes in absolute value for both indicators in Figure 4.

Another striking observation from Figure 4 is that the correlation between the changes over time in these measures is virtually zero. This illustrates the likelihood that relying on individual measures of governance to assess changes over time may lead to very different conclusions depending on which measure is chosen. Further, it also suggests that aggregate indicators which combine information from several different sources might provide a more robust indicator of changes over time in governance. In the next subsection we extend our discussion of the significance of changes over time in governance to the case of composite indicators in order to explore this more fully.

3.2 Changes in Aggregate Indicators

We now elaborate on the previous discussion to address the problem of making inferences about changes over time in country governance based on our aggregate indicators. Just as we found that aggregate indicators are more informative about levels of governance than individual indicators, changes over time in aggregate indicators can be more informative about trends in governance than changes in individual indicators. To formalize this we develop a two-period version of the unobserved components model that we have used to construct the aggregate indicators in each period. We then use it to be more precise about the statistical significance of changes over time in our estimates of governance.

Let y(j,k,t) denote the governance assessment provided by individual data source k in period t for country j. We use a two-period version of the unobserved components model to express this observed data as a linear function of unobserved governance in country j at time t, g(j,t), and an error term capturing the various sources of measurement error that we have been discussing, $\epsilon(j,k,t)$:

(4)
$$y(j,k,t) = \alpha(k,t) + \beta(k,t) \cdot (g(j,t) + \varepsilon(j,k,t))$$

The intercept and slope parameters $\alpha(k,t)$ and $\beta(k,t)$ vary by data source and over time. As in our single-period model we assume that unobserved governance and the error terms are normally distributed with mean zero. We maintain the identifying assumption that unobserved governance and the all the error terms are mutually independent, i.e. $E\big[g(j,t)\cdot \epsilon(j,k,s)\big]=0 \text{ for all sources } k \text{ and periods } t \text{ and } s, \text{ and } E\big[\epsilon(j,k,t)\cdot \epsilon(j,m,s)\big]=0 \text{ for all sources } k \text{ different from } m \text{ and for all periods } t \text{ and } s.$ We also maintain as a choice of units that the variance of unobserved governance is one in each period, i.e. $E\big[g(j,t)^2\big]=0 \text{ for all } t. \text{ Our only substantive new assumption is that unobserved governance is correlated over time, as are the error terms, i.e. } E\big[g(j,t)\cdot g(j,t-1)\big]=\rho$, and $E\big[\epsilon(j,k,t)\cdot\epsilon(j,k,t-1)\big]=r_k\cdot\sigma(k,t)\cdot\sigma(k,t-1), \text{ so that } \rho \text{ and } r_k \text{ are the correlations over time of governance and the error term in source } k, \text{ respectively.}$

Next let y(j,t) denote the Kx1 vector of observed data for each country; $\alpha(t)$, $\beta(t)$, $\sigma(t)^2$ and r denote the Kx1 vectors of the parameters in period t; and let B(t), $\Sigma(t)$ and R denote KxK matrices with the vectors $\beta(t)$, $\sigma(t)^2$ and r on their diagonals. Then using the properties of the multivariate normal distribution, the joint distribution of unobserved governance in the two periods in a country, conditional on the observed data for that country is normal with mean and variance:

$$E\begin{bmatrix}g(j,t) & y(j,t) \\ g(j,t-1) & y(j,t-1)\end{bmatrix} = \begin{pmatrix} \iota' & \rho \cdot \iota' \\ \rho \cdot \iota' & \iota' \end{pmatrix} \Omega^{-1} B^{-1} \begin{pmatrix} y(j,t) - \alpha(t) \\ y(j,t-1) - \alpha(t-1) \end{pmatrix}$$

$$V\begin{bmatrix}g(j,t) & y(j,t) \\ g(j,t-1) & y(j,t-1)\end{bmatrix} = \begin{pmatrix} 1 & \rho \\ \rho & 1 \end{pmatrix} - \begin{pmatrix} \iota' & \rho \cdot \iota' \\ \rho \cdot \iota & \iota' \end{pmatrix} \Omega^{-1} \begin{pmatrix} \iota' & \rho \cdot \iota' \\ \rho \cdot \iota & \iota' \end{pmatrix}$$

where B is a block-diagonal matrix with B(t) and B(t-1) on the diagonal, and ι is a Kx1 vector of ones. The covariance matrix Ω has the following block form:

$$\begin{split} &\Omega = \begin{pmatrix} \Omega_{11} & \Omega_{12} \\ \Omega_{21} & \Omega_{22} \end{pmatrix} \text{, with } \; \Omega_{11} = \mathfrak{u}' + \Sigma(t) \text{, } \; \Omega_{12} = \Omega_{21}' = \rho \mathfrak{u}' + R \Sigma(t)^{1/2} \Sigma(t-1)^{1/2} \text{, and} \\ &\Omega_{22} = \mathfrak{u}' + \Sigma(t-1) \text{.}^{15} \end{split}$$

The conditional mean and variance in Equation (5) are just the two-period generalizations of the estimates of governance and their precision based on the one-period unobserved components model that we used in Section 2, i.e. Equation (5) is the exact analog of Equations D2 and D3 in Appendix D. In fact, if we set ρ =r $_k$ =0 for all sources k, then we recover exactly the estimates of governance that we had before. The advantage of this two-period formulation is that we now have specified the joint distribution of governance in the two periods for each country, conditional on the observed data in the two periods. Since we have modeled the joint distribution over the two periods of governance, we can base inferences about governance in the two periods, as well as changes in governance, on this joint distribution. We also note that the discussion of inference about changes over time in governance based on individual indicators in the previous section is just a special case of this more general formulation. ¹⁶

We implement this two-period model using our actual dataset, over the period 1996-2004. We restrict attention to a balanced set of sources that are available in both periods for the two indicators. In order to implement this calculation, we need to have estimates of the parameters of the model in both periods (the α 's, β 's, and σ 's), as well as estimates of the correlation over time of the errors in the individual sources (the r's) and the correlation of unobserved governance itself, ρ . We obtain these parameters in

block form:
$$V_{11} = \begin{pmatrix} 1 & \rho \\ \rho & 1 \end{pmatrix}$$
, $V_{12} = \begin{pmatrix} \iota' & \rho \cdot \iota' \\ \rho \cdot \iota' & \iota' \end{pmatrix} B$, and $V_{22} = B\Omega B'$. Standard results for the

partitioned multivariate normal distribution imply that the distribution of governance conditional on the observed data is normal with mean and variance given by Equation (5).

 $^{^{15}}$ To obtain Equation (5), note that the (2K+2)x1 vector $\big(g(t),g(t-1),y(t),y(t-1)\big)'$ is normally distributed with mean $\big(0,0,\alpha(t),\alpha(t-1)\big)'$ and variance-covariance matrix V with the following

¹⁶ To see this, set the number of sources K=1 and assume that $\alpha(t)$ =0, $\beta(t)$ =1, and $\sigma(t)$ = σ for this one source. Equation (5) then gives the conditional mean and variance of the level of governance in the two periods based on this single source. The expected change in governance conditional on the data is then just the difference between the conditional means in the two periods, and the conditional variance of the change is just the sum of the variances in the two periods less twice the covariance.

two steps. First, we estimate the one-period unobserved components model in 1996 and in 2004, to obtain estimates of the α 's, β 's, and σ 's. We refer to this as the "static model" estimates. We also retrieve the estimates of governance and standard errors from the static model, to use as a basis for comparisons with the two-period model. Second, we calculate the correlation over time of these static estimates of governance as an estimate of ρ . In this second step we also insert the estimated parameters of the static model into Equation (4) and retrieve estimates of the errors in the sources in the two periods as residuals. The correlation over time in these estimated residuals serves as our estimate of the correlation in the errors. We then insert all the estimated parameters, together with the data, into Equation (5) to obtain our final estimates of governance in the two periods conditional on the data, as well as the variance-covariance matrix of these estimates. We refer to these as the "dynamic model" estimates.

Table 7 summarizes the results of this calculation for the six governance indicators. In the top panel we present some summary statistics to aid in the comparison of governance estimates based on the single-period, or static model, and the two-period, or dynamic model. In the first two columns we report the correlation between the estimates of governance based on the static and dynamic models, in the two periods, 2004 and 1996. These correlations are virtually one for all six indicators in both periods, suggesting that our estimates of the levels governance do not change very much if we take into account persistence in governance and in the error terms. The third column reports the correlation of the change over time in the estimates of governance according to the two models. In light of the high correlations in levels between the two models, it is not very surprising that the correlation of changes is also very high, averaging 0.93 across the six indicators.

The next two columns of Table 7 report the average absolute change in the governance estimates for the static and dynamic models. These changes are roughly half as large in the dynamic model than in the static model, averaging 0.17 and 0.32 respectively. The reason the dynamic model gives much smaller estimates of the change in governance over time is because the estimated persistence in governance is quite strong relative to the estimated persistence in the error terms. Averaging across the six indicators, the persistence in unobserved governance is estimated to be 0.89.

This is over twice as large as the persistence in the error terms, which averages 0.42 across all sources and indicators. Based on our intuitions from the simple example above, we should expect to find substantially smaller estimates of the change in governance when we take this pattern of persistence into account, and this is in fact what happens.

The bottom panel of Table 7 summarizes the consequences of this persistence for inference about changes in governance. Formally our objective is to test the null hypothesis that the change in unobserved governance is zero conditional on the observed data. We begin by calculating the z-statistic associated with this hypothesis for each country, using the static and dynamic models. For the static model, we simply take the absolute change in our estimate of governance, and divide by the square root of the sum of the variances of the estimate of governance in the two periods. For the dynamic model, we calculate the variance of the change in governance as the sum of the estimated variances in the two periods, minus twice the estimated covariance between the two periods. The square root of this variance becomes the denominator of the z-statistic for the dynamic model. The average z-statistics are smaller in the dynamic model than in the static model, again consistent with the intuitions developed above. For the static model, the z-statistics average 0.82, as opposed to 0.59 for the dynamic model. This in turn implies fewer statistically significant changes in governance based on the dynamic model, as reported in the next two columns. The average number of significant changes at the 10 percent level falls by half from 21 to 10 once we take persistence into account.

Although a relatively small number of changes in the aggregate indicators signal statistically significant changes in unobserved governance, it is worth noting that the proportion of significant changes is much higher for the aggregate indicator than it is for individual indicators. Recall from the previous subsection that only the top one percent of changes in an individual indicator with typical persistence in unobserved governance and the error term would be significant at the 90 percent level. This is not because individual indicators do not register large changes for individual countries – in fact frequently they do so. Rather, it is because the margins of error associated with changes in individual data sources are large. In contrast, for the aggregate indicators we find that between five and seven percent of all changes signal statistically significant

changes in governance at the same significance level, reflecting the greater precision of the aggregate indicators. This illustrates the benefits of aggregation for assessing changes over time, as well as levels, of governance.

We also note that a substantially larger proportion of changes in governance are significant if we relax the standard of significance to 75 percent, for example. For the case of a typical individual indicator, we have already seen that the top seven percent of changes in the observed data would signal significant changes in unobserved governance. For our composite indicators this fraction is higher. For example, for the Voice and Accountability measure, seven percent of the changes are significant at the 90 percent level, while 12 percent of changes, or 23 cases, would be significant at the 75 percent level. Finally, these calculations somewhat understate the number of significant changes because they are based on a subset of our data sources that are available in both periods – had more of our sources in 2004 been available in 1996, we would have had even more significant changes over time.¹⁷

Finally, it is useful to compare the statistically significant changes in governance identified by the dynamic model with the "large" changes in governance we identified in Section 2.3 of this paper using a very simple rule of thumb. We begin by identifying all changes in governance based on the static model for which the 90 percent confidence intervals in the two periods do not overlap, as per the rule of thumb. Note that this is a more stringent condition for identifying significant changes in governance than the t-tests for the static model we have just discussed. On average, there are nine significant changes in governance per indicator according to this rule of thumb applied to the simple static model, as compared with 10 in the dynamic model. There is a remarkable degree of overlap between the significant changes identified by the rule of thumb and the dynamic model. On average, eight of the nine changes identified by the rule of thumb are also significant in the dynamic model. Moreover, comparing the second and third-

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¹⁷ We have also analyzed changes over the period 1998-2004, and find a similar proportion of changes to be statistically significant. While on the one hand we are looking at changes in governance over a shorter period of time, on the other hand we have more data sources available in both periods on which to base our assessment of changes.

¹⁸ Requiring 90 percent confidence intervals not to overlap is equivalent to requiring the absolute change in estimated governance to be larger than the sum of the standard errors in the two periods. This sum is always larger than the square root of the sum of the squares of these standard errors.

last columns of this panel, it is clear that the dynamic model turns up very few significant changes not identified by the rule of thumb. Although the simple rule of thumb and the more formal model turn up more or less the same set of significant changes in governance, it is important to note that the magnitude of these changes is substantially smaller in the formal dynamic model.

In summary, we have developed a dynamic version of the single-period unobserved components model that we have used to construct our aggregate governance indicators. The advantage of specifying a dynamic version of the model is that it allows us to make formal statistical inferences about changes in unobserved governance based on our changes in the composite governance indicators. But this advantage comes at a cost. The two-period model is substantially more complicated to implement, particularly when the set of underlying data sources is not the same in both periods. Given that the number of data sources we use has expanded substantially over time, this is a significant limitation. Fortunately, however, we have seen that using a simple rule of thumb for identifying large changes over time in our static or single-period estimates of governance corresponds quite closely to formal inference regarding the significance of changes in governance. Because of this, we continue to use the singleperiod unobserved components model to construct the aggregate governance indicators in each period, and recommend using the simple rule of thumb that 90 percent confidence intervals do not overlap for identifying changes in governance that are likely to be statistically significant.

4. De Jure vs. De Facto Measures of Governance

A recurrent theme in this paper is that individual sources of governance data are imperfect and provide only noisy signals of unobserved governance. We emphasize at the outset that this problem is not unique to the subjective or perceptions-based measures of governance on which we rely. Rather, it is pervasive in all efforts to measure governance, or any other socioeconomic variable for that matter. What are the sources of this measurement error? In the case of our governance data, we emphasize two distinct sources. First, as always, specific concepts may be imperfectly measured. Survey responses to a question such as "is it difficult to start a business?" reflect sampling variation in the survey. Expert assessments of the difficulty of starting a business rely on the imperfect information available to such experts, and hence also contain measurement error. Second, and perhaps more important, is that there are inevitably gaps between the specific concept being measured and the broader notion of governance that it is intended to proxy. For example, the ease of starting a business is just one of many dimensions of the regulatory environment, and as such is an imperfect proxy even if the narrow concept of business entry regulation were perfectly measured.

This broad notion of measurement error clearly also applies to "objective" or quantifiable measures of governance. Consider for example the very useful "Doing Business" project of the World Bank, which has compiled objective measures of various dimensions of the regulatory environment across countries, by interviewing law firms around the world about formal rules and regulations in their countries. These measures are subject to the same two sources of measurement error. As always there may be gaps between the de jure rules on the books, and their de facto application. And as with the subjective measures, there are gaps between this specific dimension of regulation and the overall quality of the regulatory environment. The same limitations apply to many other objective measures of governance that have been proposed. Trade taxes as a share of total tax revenue has been suggested as a proxy variable for the ability and willingness of the government to broaden its tax base. This measure is also subject to measurement error given the dubious quality of data on public finances in many developing countries, and moreover is an imperfect proxy of a government's fiscal capability. Similarly, although it is easy to observe whether a country has an independent anti-corruption commission, it is much more difficult to measure whether such a commission is in fact independent or empowered to act.

Although objective indicators of governance are subject to measurement error, this uncertainty is rarely quantified or made explicit. In an earlier paper we made an effort to quantify the margins of error associated with several leading objective indicators of governance. We found that this broad notion of measurement error was as important for objective indicators as for the subjective indicators we develop. We did not however attempt to distinguish between the two sources of measurement error: difficulty in measuring specific concepts, on the one hand, and the gap between specific concepts and broader notions of governance, on the other. In this section of the paper we make an effort to focus on the first source of measurement error. In particular, we focus on understanding the gaps between *de facto* perceptions of quite specific dimensions of governance, and the corresponding *de jure* regulations.

We consider two measures of the *de facto* environment facing firms, taken from the survey of over 8000 firms in 104 countries carried out by the World Economic Forum in 2004 as an input to their Global Competitive Report. These two variables capture firms' assessment of the ease of starting a business, as well as their reported tax burden. ²⁰ We match these with two closely-related *de jure* measures from other sources. For ease of starting a business, we draw on the Doing Business project at the World Bank discussed above. From this dataset we take the number of days required to start a business. For perceptions of the tax burden, we have independently collected statutory tax rates for the sampled countries, and within it, for the types of firms by sector, and mapped these rates into the firm level data. We then aggregate these up to the country level to obtain average measures of the statutory tax burden. ²¹

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¹⁹ See Kaufmann, Kraay and Mastruzzi (2004).

²⁰ For the past number of years, collaboration between WBI and the WEF has resulted in an indepth coverage of governance in the survey, and in the WBI contribution of a governance chapter for each GCR. For details on the data we use for the text described above, and the related coverage of these governance issues at the micro-level, see the Governance chapter in the GCR 2004, at http://www.worldbank.org/wbi/governance/pubs/gcr2004.html.

The main source for the effective tax rates was the PricewaterhouseCoopers report "Corporate taxes: worldwide summaries (2003-2004)", covering 85 of our sample of 104 countries. As some countries have differential tax rates, to map the country-level data from the report to the individual firm-level data from the GCS we used, in addition to country criterion, individual characteristics such as size, sector, and whether the firm exports or not. For those countries for which the report has no information we used the country average calculated by KPMG in their "Corporate tax rate survey".

We begin with simple ordinary least squares regressions of perceptions of ease of starting a business on the corresponding objective measure (first column of Table 8). Not surprisingly, the objective measure enters negatively and is highly statistically significant with a t-statistic of more than five, indicating that firms perceive it more difficult to start a business in countries where the number of days required to do so is large. More interesting for our purposes is the observation that the R-squared of the regression is very modest, at only 0.23.

We cannot say at this point whether this reflects measurement error in the subjective or the objective measure, as either one would contribute to a low R-squared. One hypothesis however is that the objective measure fails to capture the extent to which the formal requirements to start a business are altered by the presence of corruption or other forms of informality in their application. To investigate this possibility we add our aggregate measure of Control of Corruption to the regression.²² We find that this variable enters positively and highly significantly, indicating that perceptions of the ease of starting a business are significantly better in countries with less corruption, even after controlling for the *de jure* rules governing business entry. Once we add corruption, the coefficient on the *de jure* rules falls by half, and its significance also drops to the 10 percent level. Moreover the adjusted R-squared of the regression doubles to 0.44, indicating substantial explanatory power for this additional variable.

There is however an obvious difficulty with this result. It could well be the case that firms' responses to the question regarding business entry are non-specific, in the sense that they will provide low responses if their assessment of the overall business environment is negative. This generalized dissatisfaction could account for the significance of the corruption variable, rather than the extent to which business entry procedures are tainted by corruption. We address this possibility in the next three columns. One test for this problem of non-specificity is to ask whether unrelated objective measures of the business environment also predict perceptions about ease of entry. We do this in the third column by adding the objective tax burden question to the regression. If firm responses reflect generalized dissatisfaction, we might expect this variable also to enter significantly, yet it does not. In the fourth column we instead add

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²² Recognizing that the dependent variable is one of many individual data sources entering in the regression, we lag the corruption measure and use the 2002 version.

firms' responses to a question about the overall regulatory environment that they face. Again we find that corruption remains highly significant, and in this case the general question about regulation is also highly significant. This suggests that while non-specificity of responses may be a concern, it does not fully account for the significance of the corruption measure in the previous specifications. Interestingly, in both specifications, we find that the coefficient on the objective entry measure becomes larger and more significant as we add these control variables. Finally we note that all these results go through when we put all four variables in the regression.

The second and third panels of Table 8 reveal interesting differences between developing countries on the one hand, and OECD and newly-industrialized countries, on the other. In the developing country sample, the results described above go through for the most part. However, it is interesting to note that the magnitude and significance of the objective measure is in general smaller in the developing country sample, and larger in the industrial country sample, while the converse is true for the corruption variable. Taken together these results suggest that firm perceptions of the ease of starting a business depend on both *de jure* rules, as well as the institutional environment in which those rules are applied. Moreover, the relative importance of *de jure* rules seems to be higher in industrial than in developing countries. More broadly, the lesson from this simple exercise is that it can be misleading to rely exclusively on either perceptions of *de facto* governance or objective measures of the *de jure* rules.

We perform the same sequence of regressions using the question on perceptions of tax burdens from GCS as the dependent variable. The results are broadly similar to those discussed above, and are reported in the continuation of Table 8. In the full sample of countries, we find that perceptions of tax burdens are strongly correlated with our *de jure* measure of statutory tax rates. While in the full sample of countries we do not find corruption to enter significantly, it does in the developing country sample where we might expect corruption to matter more for perceptions of the tax burden. As before, we address the possibility that the tax burden question captures generalized dissatisfaction rather than a specific concern with taxation by including the objective measure of days to start a business, and we find that the corruption variable remains significant. Also consistent with our priors, we find that differences in statutory tax rates have much stronger explanatory power for perceptions of tax burden in the

industrial country sample. While the overall results are not quite as strong as for the business entry example discussed above, qualitatively the picture that emerges is quite similar.

In sum, the results suggest that assessments of governance should not be based solely on objective measures of the *de jure* situation. We have seen that firms' perceptions of the ease of starting a business, and the weight of their tax burden, depend not only on the *de jure* regulations that they face, but also on the environment in which these regulations are applied. Many laws and regulations are often adopted, yet implementation is subverted due to the many informal mechanisms that often prevail. In these settings frequently the essence of how policies and regulations are actually implemented may be missed by objective indicators. This is not to say, of course, that firm-based surveys of perceptions are devoid of margins of error and related challenges. Rather, the results we have shown emphasize the importance of relying on a range of measures to assess governance, and on recognizing that no single measure is a perfect proxy for governance.

5. Interpreting Governance-Income Correlations

In this section of the paper we briefly discuss two methodological issues that arise in interpreting the strong positive correlation observed between measures of governance and per capita income across countries. We first consider – and discount – the possibility that these strong correlations are a consequence of "halo effects", i.e. an upward bias in perceptions of governance in rich countries simply because they are rich. We also discuss – and refute – the argument that the weak governance performance of countries in Africa should be discounted in some sense because these countries are poor.

5.1 Halo Effects

Perceptions-based measures of governance such as the ones we develop here are potentially subject to a number of biases. One common critique is that perceptions of governance are biased upwards in rich countries because respondents view the development success of the country in question as evidence that institutional quality is good. This type of bias is sometimes referred to as a "halo effect". ²³ This in turn implies that part of the observed high correlation between per capita incomes and governance spuriously reflects this bias.

To formalize the idea of halo effects, suppose that we can write our observed estimates of governance, g*, as the sum of true governance, g, and an error term, u:

$$(6) g^* = g + u$$

The essence of the halo effect argument is that this error term u is correlated with per capita incomes, y. The relevant question then is the extent to which this spurious correlation can account for the high observed correlation between measured governance and per capita incomes. Intuitively, it should be clear that in order for halo effects to substantially account for the correlation between incomes and measured governance, it

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²³ A recent statement of this critique can be found in Glaeser, La Porta, Lopez-de-Silanes, and Shleifer (2004), who assert that much of the correlation between subjective measures of governance and levels of development is attributable to this type of bias.

must be the case that the correlation between the error and income is large. Perhaps less obviously, it must also be the case that the variance of the error term is large relative to the variation in governance. Otherwise, even if the error term is strongly correlated with income, the fact that it accounts for little of the variance in measured governance means that it will have little impact on the correlation between measured governance and per capita income. Our argument in a nutshell is that for reasonable assumptions on the importance of measurement error, this measurement error would have to be implausibly highly correlated with per capita incomes in order to constitute a significant source of bias.

To formalize this intuition, we decompose the observed correlation between measured governance and per capita income into a term reflecting the true correlation between governance and income, and a term attributable to the halo effect:

(7)
$$CORR(g^*,y) = \sqrt{1-s} \cdot CORR(g,y) + \sqrt{s} \cdot CORR(u,y)$$

where $s=V[u]/V[g^*]$ is a measure of how noisy the governance indicator is. Note also that the correlation between measured governance and per capita income that we see in the data is around 0.8.

To understand this expression, suppose that the true correlation between governance and income were zero, so that all of the observed correlation between income and governance is due to the second term capturing halo effects. This consists of two ingredients: the actual correlation of the error term with per capita income, which is multiplied by the square root of the share of the variance in governance due to the error term. Suppose that the governance indicator is very noisy so that the share of the variance approaches one. Then the correlation of the error term with per capita income must be equal to the observed correlation in the data. Suppose however that the governance indicator is at least somewhat informative, so that s is less than one. Then in order to match the observed correlation in the data, the halo effect correlation in the error term must be even larger than the 0.8 observed in the data. This example illustrates how the importance of halo effects in accounting for the observed correlation between governance and per capita income depends on both the strength of the halo

effect itself, as well as the relative importance of measurement error in the governance indicator.

This example is extreme because we have assumed that the true correlation between governance and income is zero. We now relax this assumption and revisit the question of how strong halo effects need to be to account for the observed correlation between measured governance and per capita income of 0.8. We do this with the help of Figure 5, which graphs the strength of the halo effect, i.e. CORR[u,y], on the vertical axis, against the share of the variance in governance due to the residual, i.e. s, on the horizontal axis. The different lines on the graph correspond to different assumptions for the true correlation between governance and income. We have already discussed the intuition for the case where this correlation is zero, shown as the highest line in the graph. When the share of the variance in governance due to measurement error is one, the halo effect correlation must be equal to 0.8. As we move to the left and the governance indicator becomes more informative, the required correlation increases.

The lines corresponding to successively higher true correlations between governance and income fall everywhere below the first series. This is because once we allow for some correlation between true governance and income, the halo effect needed to account for the correlation between observed governance and income is weaker. Interestingly, however, even if the true correlation is quite substantial at 0.6, the lowest line in Figure 5 tells us that halo effects must still be quite considerable, with a correlation of at least 0.5, to match the observed data.²⁴ This lower bound occurs for intermediate values of the share of the variance of governance due to measurement error. It is also interesting to ask what a reasonable value for this share might be, in order to pin down more precisely how strong halo effects must be. One way to do so is to consider the standard errors of the governance estimates, which average around 0.25 as compared with the standard deviation of measured governance of 1. This suggests that the share of the variance of governance due to the error term is in fact quite small at s=0.25²=0.06. For this low variance share, the halo effect correlation would need to be

²⁴ We do not consider higher values for the true correlation than 0.6. This is because we are trying to see the extent to which halo effects might result in an observed correlation of 0.8 which is substantially higher than the true correlation. If the observed correlation and the true correlation are close to each other, then the halo effects argument becomes unimportant empirically.

0.9 in order to match the observed data. If the true correlation between governance and income were much lower, for example at 0.4, then even if measurement error in governance were perfectly correlated with per capita income it would not be possible to generate the observed correlation between governance and per capita incomes.

This strong conclusion is driven by the assumption that that measurement error accounts for a relatively small portion of the variation in observed governance. As a result this measurement error needs to be very highly correlated with incomes in order to match the data. One could argue that we are understating the importance of measurement error by relying on the estimated standard errors from our governance indicators. After all, these are based on the assumption that measurement error is uncorrelated across different sources of governance data. However, if halo effects are important, the measurement error in individual sources will be correlated not only with per capita income, but also with each other. This in turn would imply a greater imprecision of the governance estimates. To capture this possibility, suppose that the standard error of the governance estimates were twice as large as what we actually have, at 0.5. This implies s=0.25, and for this value of s we can see from Figure 5 that the halo effect correlation would still need to be very high at almost 0.6 in order to match the data.

In summary, these results suggest to us that although halo effects may well be present in perceptions-based measures of governance, these halo effects need to be implausibly strong in order to impart a substantial upward bias in the correlation between measured governance and per capita incomes. Moreover, it is worth noting that there may well be other factors offsetting such halo effects. One is the tendency of survey respondents in developed countries to be particularly critical of their own institutions.²⁶ It is also worth noting that some cross-country polls of experts deliberately apply higher standards to rich countries when assessing their governance.²⁷ Overall, then, we do not

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²⁵ In Kaufmann, Kraay and Zoido-Lobaton (1999), Table 5, we show that the estimated margins of error would be roughly twice as large if we assume that the correlation of error terms across sources is 0.5 instead of 0.

²⁶ For treatments of these effects in survey data, see Kaufmann and Wei (1999) and Hellman, Kaufmann and Schankerman (2000)

For example, in our discussions with PRS, we learned that this source penalizes rich countries that in their view have the resources to reduce corruption but fail to do so.

think that halo effects are a significant source of bias in the correlations between governance and per capita incomes our data.²⁸

5.2 Controlling for Income in Governance Comparisons

In a recent paper, Sachs and others (2004) have argued that weak governance is not a major factor in Africa's poor growth performance. The argument is that, once we control for per capita income, countries in Sub-Saharan Africa do not have particularly poor governance indicators. This point is illustrated in Figure 6, which plots our 2004 Rule of Law measure (on the vertical axis) against the logarithm of real per capita GDP in the mid-1990s (on the horizontal axis). Note that the per capita income variable has been rescaled to have mean zero and standard deviation of one, as does the governance indicator. Countries in Sub-Saharan Africa are highlighted in red. A striking observation from this graph is that over half (27 out of 46) of the countries in the region actually fall above the simple ordinary least squares regression line, shown in black. At first glance, this appears to lend credence to the argument that governance in Africa is on average what one might expect given the region's low income levels.

However, it is misleading to conclude from this simple graph that Africa's governance performance is reasonable given its per capita income. This interpretation of the graph is valid only to the extent that the OLS regression line would capture a causal relationship from higher income to better governance. But a large body of research indicates that there is substantial causation in the other direction as well – better governance leads to higher incomes. Moreover, the magnitude of the estimated effect of governance on per capita incomes in the long run is large.²⁹ Available estimates suggest that a one standard deviation improvement in governance would lead to a two-to three-fold difference in income levels in the long run. A one standard deviation change in governance would correspond to, for example the difference between Kenya

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²⁸ It is of course possible that halo effects are associated with countries' recent growth performance, rather than with income levels. We can use the analysis of this section to consider this case as well. The main insight is that since the correlation between recent growth and governance is typically fairly modest, growth-related halo effects would not need to be as large in order to impart a proportionately larger bias to this correlation.

²⁹ See for example Hall and Jones (1999), Acemoglu, Johnson and Robinson (2000), Kaufmann and Kraay (2002), Alcala and Ciccone (2004), Rodrik, Subramanian and Trebbi (2004), and Rigobon and Rodrik (2004).

and Turkey on our 2004 Rule of Law indicator. This means that the simple OLS relationship will exaggerate the positive effects of income on governance because it also reflects the strong effect in the opposite direction, from governance to incomes. In order to compare governance in Sub-Saharan Africa to what might be expected given income levels, we need to first isolate these two directions of causation, so to be able to focus in particular on the causal effect of income on governance.

The red and green lines in Figure 6 show two alternative estimates of the causal effect of income on governance. The (slightly) upward-sloping one, in red, comes from Rigobon and Rodrik (2004). They study the causal relationships between per capita income, democracy, rule of law, openness to international trade, and geography, using identification through heteroskedasticity to isolate the causal effects. As expected, this red line is substantially flatter than the OLS regression line, consistent with the intuition that the latter relationship overstated the true causal effect of incomes on governance. This flattening has important consequences for our conclusions about the quality of governance in Africa controlling for income levels. Once we isolate this much weaker effect of income on governance, we find that only 7 out of 46 countries in the region fall above the regression line: Ghana, Lesotho, Cape Verde, Namibia, South Africa, Botswana, and Mauritius. In contrast, the vast majority of countries in Africa have governance that is worse than their income levels would predict.

The weakly downward-sloping green line presents another estimate of the effect of income on governance, coming from Kaufmann and Kraay (2002). In this paper we used a different approach to identification and found a zero or even negative impact of income on governance. While this finding may be somewhat extreme, it leads to the same conclusions regarding the quality of governance in Africa – now only 6 out of 46 countries in the region fall above the regression line, indicating governance levels better than what per capita incomes would predict.

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³⁰ We use their specification excluding democracy, which implies that a one standard deviation increase in log per capita GDP improves rule of law by 0.14 standard deviations. They use a different measure of rule of law for the mid-1990s taken from Knack and Keefer (1995). However, its correlation with our rule of law indicator is above 0.8, so we can reasonably use the estimated coefficient from this paper with our governance indicator, suitably standardized. Note also that in the system of equations estimated by Rigobon and Rodrik (2004) the conditional expectation of governance given per capita income also reflects the indirect effects of income on openness, which in turn affects the rule of law. However, these estimated indirect effects are so small that our conclusions are essentially unaffected by ignoring them.

Overall this evidence suggests that it would be inappropriate to discount the governance performance of countries in Sub-Saharan Africa based on their low income levels. The reason is simple. The only way to justify such a discount is to argue that higher incomes exert a positive causal effect on governance. But available evidence suggests that the causal impact of incomes on governance is small. Rather, the observed correlation between governance and per capita incomes primarily reflects causation in the other direction: better governance raises per capita incomes.

6. Conclusions

There is by now broad consensus among academics and policymakers alike that good governance matters for economic development. There is also growing awareness in the aid community that good governance matters for the effectiveness of development assistance. In light of this it is important to be able to measure levels and changes over time in governance across countries. This paper represents the latest installment of our aggregate governance indicators which seek to provide such information. Relative to previous years, these indicators reflect a significant expansion of our underlying data set of several hundred individual variables measuring perceptions of governance, drawn from 37 separate data sources.

In our work we have emphasized the difficulty of measuring governance. We have argued that one of the strengths of our composite governance indicators is that they can be more informative than individual data sources: on average the aggregation reduces the margin of error by about one-half. Further, given the increasing number of separate data sources now at our disposal to construct these aggregate indicators, we find that the margins of error of the latest period under measure are smaller than in earlier periods. However, these margins of error, even in our most recent aggregate indicators, still remain substantial, and thus all our previous cautionary suggestions regarding interpretation continue to apply.

At the same time, we have emphasized that these margins of error are not unique to perceptions-based measures of governance, but are an important feature of all efforts to measure governance. In fact, in previous work we have documented that objective measures also have substantial margins of error. Moreover, we believe that the type of perceptions data on which we rely provides insights into governance that are difficult to obtain from more objective or quantifiable measures. For example, we show that firms' perceptions of the difficulty of starting a new business, or of their tax burdens, do not depend solely on the relevant legal framework governing business entry and taxation. Rather, firms' views on these issues are also importantly influenced by the degree of corruption in their country (particularly so in developing countries), suggesting that not only do formal rules matter, but also the institutional environment in which these rules are applied and enforced. Thus, wherever objective data on governance or

investment climate are collected (such as de jure data of the numbers of steps required by the regulations to start a business), a comprehensive analysis of governance and institutional change ought to be complemented by data from the reports of the economic agents on the ground, such as firms or users of services, which inevitably will contain an element of subjectivity.

Policymakers are often particularly interested in trends in institutional quality: is governance improving or worsening over time in a particular country? As we have emphasized in our work, the presence of measurement error in all types of governance indicators, including our own, makes assessing trends in governance a challenging undertaking. In this paper we developed a formal statistical methodology, as well as a simple rule of thumb, for identifying changes in governance that are likely to be statistically and practically significant. Over the eight-year period from 1996-2004 spanned by our governance indicators, we find that in about 5 to 7 percent of countries we can be confident (at the 90 percent significance level) that governance has changed substantially. And at a lower 75 percent significance level, roughly 20 percent of all observed changes stand out as significant. Importantly, we show that there is a great deal of agreement among our many data sources about the direction of change in governance in these countries. Overall this reminds us that while often institutional quality changes takes place haltingly, gradually, or not at all, there are also countries where one can point to sharp improvements or deteriorations even over a fairly short eight-year period. Significant and rapid institutional change, while not the norm, is feasible and does take place in practice.

Finally, we have discussed two important issues that arise in interpreting the strong positive correlation between governance and income levels. Some observers have argued that these positive correlations are substantially due to "halo effects" – perceptions of governance in rich countries are good simply because the countries are rich. We have argued that such halo effects would need to be implausibly large to account for cross-country correlations between governance and incomes.

We have also considered the frequently-heard argument that poor levels of governance should be significantly discounted where the country is poor. Put differently, to what extent does it make sense to ask whether a country is well or poorly governed

given its income level? This issue is often raised in the context of Sub-Saharan Africa, where too many countries are both very poor, and very poorly governed. We make the simple observation that in order to answer this question, it is necessary to isolate the causal impact of income levels on governance. Simply relying on the observed correlation is inappropriate, as much of this reflects strong causal effects running from governance to per capita incomes. While identifying the effects of income on governance is difficult, the few available estimates suggest that this feedback effect is minimal. As a result, there is little basis on which to argue that the poor governance performance many countries in Sub-Saharan Africa should be discounted simply based on low income levels.

In conclusion, it is important to keep some perspective on this contribution. While these aggregate governance indicators have been useful in providing a general snapshot of the countries of the world for various broad components of governance, now for 8 years, and while the margins of error have declined over time, they remain a rather blunt instrument for specific policy advice at the country level. As we have argued in the past, these aggregate indicators need to be complemented with in-depth in-country governance diagnostics, based on micro-surveys of households, firms and public officials within the country. The lessons being drawn from these combined aggregate and micro-data sets do point to the importance of moving concretely to the next stage of governance reforms, in Africa and elsewhere. These, among others, are to stress reforms in transparency (such as natural resource revenue transparency mechanisms, disclosure of assets of politicians, voting records of parliamentarians, political campaign contributions, and fiscal accounts), in altering incentives in institutions so to increasingly focus on prevention and deterrence (rather than overly relying on prosecutions), and in working more closely with other key actors outside the public sector as well, such as the heretofore neglected private sector.

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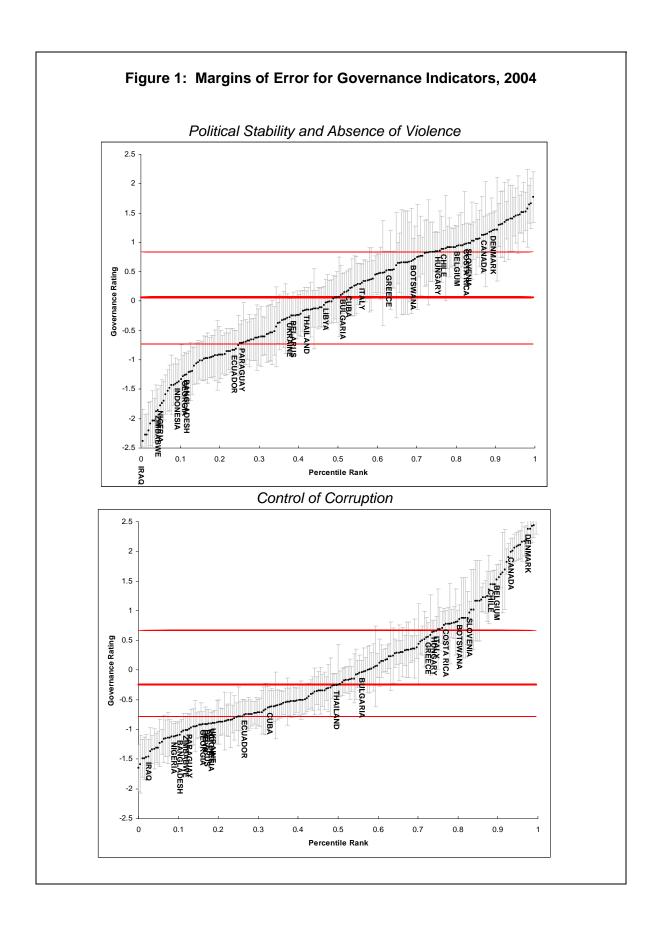
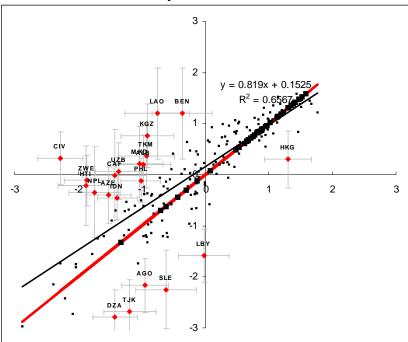
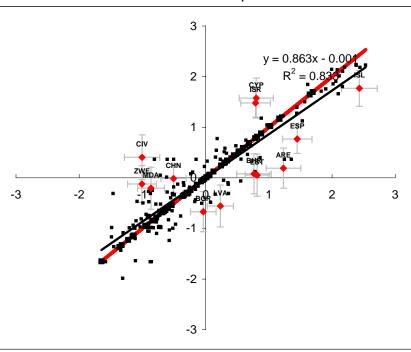


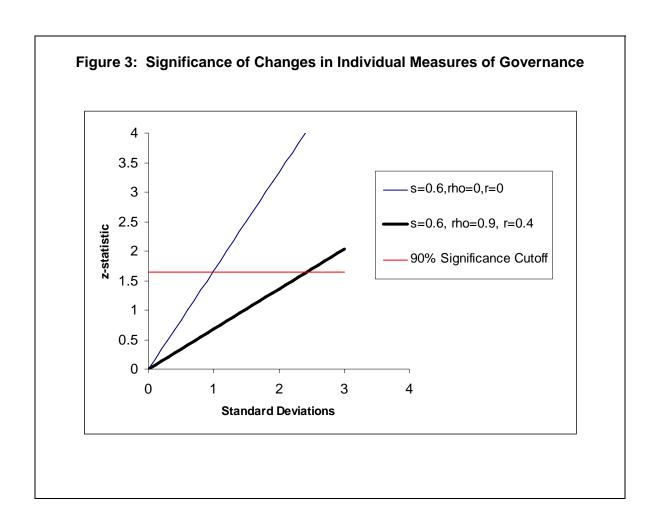
Figure 2: Changes Over Time in Governance Indicators 1996-2004

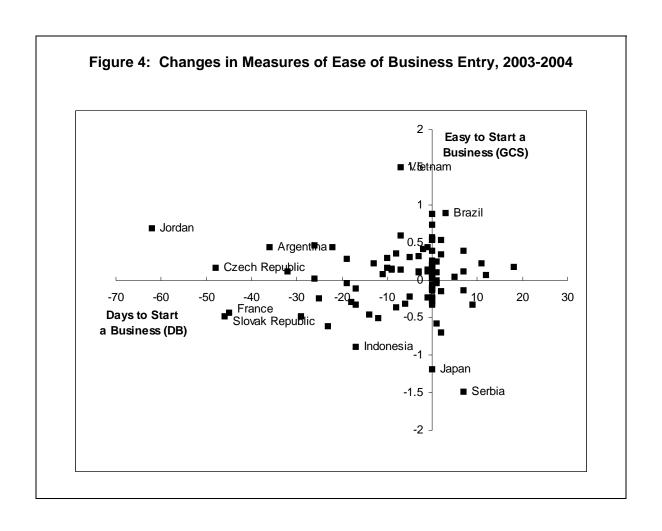
Political Stability and Absence of Violence

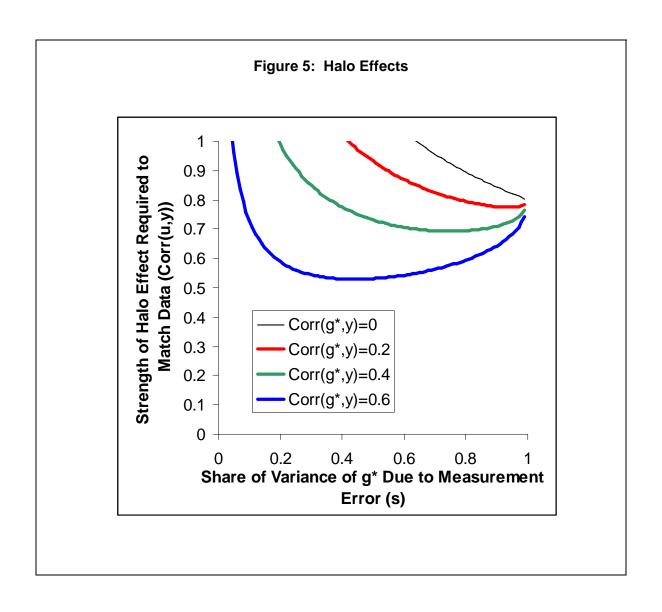


Control of Corruption









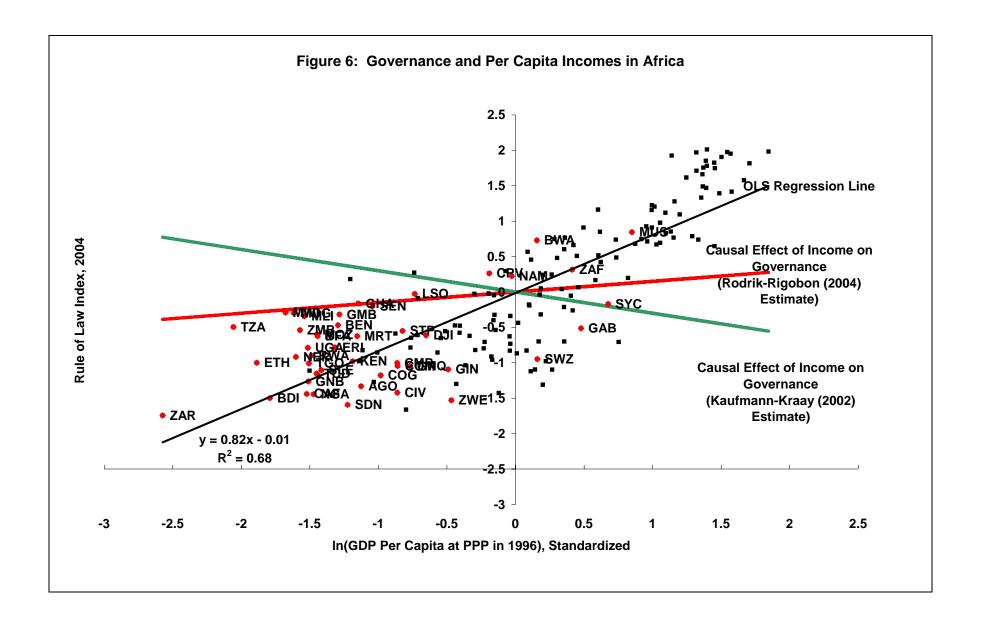


Table 1: Sources of Governance Data

Source	<u>Publication</u>	<u>Code</u>	Type 1/	Country Coverage 2/	Repre- sentative	<u>1996</u>	<u>1998</u>	<u>2000</u>	2002	2004
African Development Bank*	Country Policy & Institutional Assessments	ADB	Р	50				х	х	x
Afrobarometer	Afrobarometer Survey	AFR	S	12					Х	х
Asian Development Bank*	Country Policy & Institutional Assessments	ASD	Р	26				X	Х	Х
Bertelsmann Foundation*	Bertelsmann Transformation Index	BTI	Р	116						х
Brown University's Center for Public Policy*	Global E-Governance	EGV	Р	192	Х				Х	х
Business Environment Risk Intelligence	Business Risk Service	BRI	Р	50		х	х	X	Х	Х
Business Environment Risk Intelligence	Qualitative Risk Measure	QLM	Р	115	Х	Х	Х	Х	Х	х
Columbia University	State Capacity Project	CDU	Р	98	Х			X	Х	Х
Economist Intelligence Unit	Country Risk Service	EIU	Р	115	Х	Х	Х	Х	Х	х
European Bank for Reconstruction & Development	Transition Report	EBR	Р	26		х	х	x	Х	х
Freedom House*	Countries at the Crossroads	CCR	Р	30						Х
Freedom House	Nations in Transition	FHT	Р	27		Х	Х	Х	Х	х
Freedom House	Freedom in the World	FRH	Р	192	Х	х	х	x	Х	х
Furnar*	Index of Budget Transparency	LAI	S	10					Х	х
Gallup International	Gallup Millennium Survey	GMS	S	60				x		
Gallup International	50th Anniversary Survey	GLP	S	44			Х			
Gallup International	Voice of the People Survey	GAL	S	62					Х	х
Global Insight's DRI McGraw-Hill	Country Risk Review	DRI	Р	111	Х	х	х	X	Х	х
Heritage Foundation/Wallstreet Journal	Economic Freedom Index	HER	Р	161	Х	Х	Х	Х	Х	х
IJET Travel Intelligence*	Country Security Risk Assessment	IJT	Р	167	x					Х

^{1/} P=Poll, S=Survey

^{2/} Countries included in most recently available version of source

^{*} indicates new source added in 2004

Table 1, Cont'd: Sources of Governance Data

Source	Publication	<u>Code</u>	<u>Type 1/</u>	Country Coverage 2/	Repre- sentative	<u>1996</u>	<u>1998</u>	<u>2000</u>	2002	<u>2004</u>
Institute for Management and Development	World Competitiveness Yearbook	WCY	s	49		х	х	х	х	x
International Research & Exchanges Board*	Media Sustainability Index	MSI	Р	18					x	Х
Latinobarometro	Latinobarometro Surveys	LBO	S	17		х	Χ	X	X	Х
Merchant International Group*	Gray Area Dynamics	MIG	Р	155	Х				x	Х
Political & Economic Risk Consultancy*	Corruption Survey	PRC	S	14			Х	х	Х	Х
Political Risk Services	International Country Risk Guide	PRS	Р	140	Х	х	Х	x	x	Х
PriceWaterhouseCoopers	Opacity Index	PWC	S	35				X		
Reporters Without Borders	Reporters Without Borders	RSF	Р	138	Х				X	Х
State Department / Amnesty International	Human Rights Dataset	HUM / PTS	Р	192	Х	х	Х	X	Х	Х
United Nations Economic Commission for Africa*	Africa Governance Indicators	AGI	Р	23				х	x	Х
USAID / Vanderbilt University*	Democracy Surveys in Central America	USD	S	8						Х
World Bank	Business Enterprise Environment Survey	BPS	S	27				X	Х	Х
World Bank	World Business Environment Survey	WBS	S	80	Х		Х	X		
World Bank	Country Policy & Institutional Assessments	PIA	Р	136		X	Х	X	X	Х
World Economic Forum	Global Competitiveness Report	GCS	S	104	Х	х	Х	x	x	Х
World Economic Forum	Africa Competitiveness Report	GCSA	S	23			Х			
World Markets Research Center	World Markets Online	WMO	Р	202	X				Х	Х

^{1/} P=Poll, S=Survey

^{2/} Countries included in most recently available version of source

^{*} indicates new source added in 2004

Table 2: Summary Statistics on Governance Indicators

	Voice and Accountability	Political Stability	Government Effectiveness	Regulatory Quality	Rule of Law	Control of Corruption	<u>Average</u>
Number of Coun	tries						
1996	192	165	180	182	167	151	173
1998	192	166	184	185	186	184	183
2000	192	166	187	188	188	187	185
2002	199	186	202	197	197	197	196
2004	207	207	209	204	208	204	207
Median Number	of Sources Per Cour	ntry					
1996	4	4	4	4	6	4	4
1998	4	4	4	4	7	5	5
2000	5	6	6	5	8	7	6
2002	7	7	8	7	10	8	8
2004	8	8	9	8	11	8	9
Proportion of Co	ountries with Only O	ne Data Sourc	e				
1996	0.15	0.13	0.21	0.15	0.07	0.18	0.15
1998	0.14	0.10	0.19	0.13	0.11	0.18	0.14
2000	0.14	0.06	0.07	0.07	0.05	0.07	0.08
2002	0.10	0.10	0.05	0.07	0.07	0.08	0.08
2004	0.06	0.06	80.0	0.08	0.08	80.0	0.07
Average Standar	d Error						
1996	0.26	0.36	0.29	0.34	0.26	0.29	0.30
1998	0.25	0.30	0.29	0.34	0.25	0.25	0.28
2000	0.25	0.32	0.25	0.32	0.22	0.24	0.27
2002	0.21	0.26	0.22	0.22	0.19	0.20	0.22

Table 3: Classifying Countries for the MCA Control of Corruption WMO DRI GCS 2000 2004 2004 2004 2004 1996 Probability of Being Above the Median Is: Number of Countries Below 10% 3 17 15 16 Below 25% 24 24 19 17 11 6 Between 25% and 75% 20 20 18 38 11 12 Above 75% 26 25 15 15 12 12 Above 90% 23 22 11 6 7 8 **Total Number of Countries** 70 69 52 70 34 30 Proportion of Countries Below 10% 0.24 0.22 0.31 0.14 0.15 0.10 Below 25% 0.34 0.35 0.37 0.32 0.20 0.24 Between 25% and 75% 0.29 0.29 0.35 0.54 0.32 0.40 Above 75% 0.37 0.36 0.29 0.21 0.35 0.40 Above 90% 0.33 0.32 0.21 0.09 0.21 0.27 Average Standard Error 0.18 0.25 0.35 0.41 0.42 0.44

Table 4: Large Changes in Governance, 1996-2004

	Gove	rnance	Score	Sc	ources ava	ilable in l	both periods	Sources Added			Wei	ghts
	2004	1996	Change	Agree	No change	Dis- agree	Agree/ (agree+ Disagree)		2004 (balanced sources)	2004 (sources added)	Balanced	Added
Voice & Accountability												
BIH BOSNIA-HERZEGOVINA	-0.14	-1.20	1.07	2	0	0	1.00	8	-0.19	-0.11	0.27	0.74
CAF CENTRAL AFRICAN REPUBLIC	-1.20	-0.17	-1.03	2	0	0	1.00	3	-1.08	-1.24	0.67	0.36
HRV CROATIA	0.46	-0.50	0.96	4	0	0	1.00	7	0.34	0.72	0.74	0.27
ERI ERITREA	-1.96	-1.10	-0.86	1	1	0	1.00	4	-1.75	-2.03	0.62	0.41
GMB GAMBIA	-0.59	-1.34	0.75	3	0	0	1.00	5	-0.46	-0.74	0.65	0.38
GHA GHANA	0.39	-0.35	0.74	4	0	0	1.00	8	0.38	0.36	0.61	0.41
HTI HAITI	-1.50	-0.46	-1.03	3	0	0	1.00	5	-1.66	-1.18	0.53	0.49
IDN INDONESIA	-0.44	-1.15	0.71	4	0	1	0.80	7	-0.33	-0.53	0.58	0.44
ISR ISRAEL	0.46	1.07	-0.62	4	0	1	0.80	5	0.45	0.38	0.78	0.24
CIV IVORY COAST	-1.46	-0.19	-1.27	4	0	Ö	1.00	4	-1.34	-1.54	0.71	0.32
KGZ KYRGYZ REPUBLIC	-1.06	-0.13	-0.58	3	0	0	1.00	6	-1.03	-1.02	0.66	0.35
MEX MEXICO	0.36	-0.23	0.59	5	0	1	0.83	8	0.42	0.21	0.64	0.38
NPL NEPAL	-1.00	0.23	-1.13	2	0	0	1.00	6		-1.02	0.64	
				_	-	-		-	-0.87		• • • • •	0.58
NGA NIGERIA	-0.65	-1.49	0.84	4	0	0	1.00	9	-0.71	-0.54	0.52	0.50
PER PERU	-0.04	-0.73	0.69	3	0	2	0.60	7	0.07	-0.23	0.65	0.37
SLE SIERRA LEONE	-0.49	-1.37	0.88	2	0	1	0.67	5	-0.29	-0.67	0.53	0.49
SVK SLOVAK REPUBLIC	1.10	0.37	0.72	5	0	0	1.00	5	1.06	1.04	0.86	0.16
YUG SERBIA AND MONTENEGRO	0.12	-1.38	1.50	4	0	0	1.00	7	-0.06	0.22	0.36	0.65
ZWE ZIMBABWE	-1.48	-0.30	-1.18	4	0	0	1.00	6	-1.60	-1.21	0.55	0.47
Political Stability	0.07	0.00	4.47	0	0		0.07	0	0.00	4.40	0.50	0.40
ALB ALBANIA	-0.97	0.20	-1.17	2	0	1	0.67	3	-0.60	-1.19	0.59	0.48
DZA ALGERIA	-1.42	-2.78	1.36	3	0	1	0.75	5	-1.18	-1.46	0.58	0.46
AGO ANGOLA	-0.95	-2.17	1.22	4	0	0	1.00	4	-0.73	-1.07	0.63	0.42
AZE AZERBAIJAN	-1.52	-0.40	-1.12	2	0	1	0.67	5	-1.46	-1.32	0.53	0.52
BEN BENIN	-0.37	1.20	-1.56	1	0	0	1.00	4	0.23	-0.52	0.28	0.80
CAF CENTRAL AFRICAN REPUBLIC	-1.43	-0.01	-1.42	1	0	0	1.00	3	-1.13	-1.30	0.33	0.76
HTI HAITI	-1.87	-0.21	-1.66	2	0	0	1.00	4	-1.06	-1.98	0.36	0.71
HKG HONG KONG	1.30	0.30	1.00	3	0	1	0.75	5	0.80	1.60	0.54	0.51
DN INDONESIA	-1.38	-0.45	-0.93	6	0	0	1.00	6	-1.33	-1.20	0.60	0.44
CIV IVORY COAST	-2.28	0.32	-2.60	4	0	0	1.00	4	-2.11	-2.04	0.59	0.45
KGZ KYRGYZ REPUBLIC	-0.91	0.76	-1.68	2	0	0	1.00	4	-0.77	-0.86	0.45	0.61
AO LAOS	-0.76	1.20	-1.95	1	0	0	1.00	3	-0.99	-0.51	0.33	0.76
LBY LIBYA	-0.02	-1.59	1.57	3	0	1	0.75	2	-0.13	0.26	0.75	0.30
MKD MACEDONIA	-1.04	0.21	-1.25	1	1	0	1.00	6	-0.75	-1.06	0.39	0.66
NPL NEPAL	-1.74	-0.35	-1.39	1	0	0	1.00	5	-1.40	-1.61	0.33	0.85
PHL PHILIPPINES	-1.74	-0.33	-0.90	4	0	2	0.67	6	-0.80	-1.13	0.60	0.65
				-	-							
SLE SIERRA LEONE	-0.61	-2.25	1.64	2	0	0	1.00	3	-0.10	-0.81	0.41	0.67
TJK TAJIKISTAN	-1.19	-2.67	1.48	2	0	0	1.00	4	-0.91	-1.19	0.45	0.61
TKM TURKMENISTAN	-0.92	0.36	-1.29	2	0	0	1.00	3	-1.22	-0.47	0.51	0.56
UZB UZBEKISTAN ZWE ZIMBABWE	-1.37 -1.86	0.07 -0.11	-1.43 -1.74	3 4	0	0 1	1.00 0.80	4 3	-1.74 -1.51	-0.67 -2.00	0.56 0.66	0.48 0.39
Government Effectiveness												
ARG ARGENTINA	-0.33	0.45	-0.78	5	1	1	0.83	6	-0.30	-0.36	0.66	0.37
CIV IVORY COAST	-1.30	-0.11	-1.19	4	0	0	1.00	6	-1.21	-1.24	0.51	0.52
LVA LATVIA	0.60	0.04	0.56	3	0	1	0.75	7	0.63	0.40	0.63	0.39
TU LITHUANIA	0.70	0.04	0.64	3	1	0	1.00	8	0.65	0.40	0.59	0.43
					-	0						
SLE SIERRA LEONE	-1.32	-0.24	-1.07	2	0		1.00	5	-0.83	-1.38	0.30	0.74
TZA TANZANIA	-0.37	-1.18	0.81	4	0	0	1.00	9	-0.36	-0.37	0.35	0.67
ZWE ZIMBABWE	-1.20	-0.26	-0.94	4	0	1	0.80	6	-0.95	-1.35	0.54	0.49

Table 4, Cont'd: Large Changes in Governance, 1996-2004

	Gove	rnance	Score	Sc	ources ava	ilable in l	both periods	Sources Added			Wei	ghts
	2004	1996	Change	Agree	No change	Dis- agree	Agree/ (agree+ Disagree)		2004 (balanced sources)	2004 (sources added)	Balanced	Added
Regulatory Quality												
ARG ARGENTINA	-0.81	0.82	-1.63	7	0	0	1.00	3	-0.87	-0.44	0.79	0.25
BOL BOLIVIA	0.05	0.82	-0.77	3	0	2	0.60	4	0.25	-0.53	0.72	0.32
BIH BOSNIA-HERZEGOVINA	-0.66	-2.09	1.43	1	0	0	1.00	8	-0.72	-0.60	0.24	0.80
CUB CUBA	-1.81	-0.77	-1.04	3	0	1	0.75	3	-1.89	-1.11	0.73	0.31
ISL ICELAND	1.82	0.53	1.29	3	0	0	1.00	3	1.39	1.70	0.50	0.57
IDN INDONESIA	-0.42	0.27	-0.69	3	0	4	0.43	4	-0.38	-0.49	0.77	0.26
LTU LITHUANIA	1.16	0.38	0.79	4	0	1	0.80	6	0.99	1.07	0.67	0.37
MMR MYANMAR	-2.34	-1.12	-1.23	3	0	1	0.75	3	-2.33	-1.68	0.73	0.31
PRY PARAGUAY	-0.60	0.58	-1.18	3	0	1	0.75	4	-0.59	-0.56	0.70	0.34
SVK SLOVAK REPUBLIC	1.15	0.27	0.88	6	0	1	0.86	5	1.03	0.97	0.75	0.28
VEN VENEZUELA	-1.24	-0.08	-1.16	6	0	1	0.86	3	-1.29	-0.73	0.79	0.25
ZMB ZAMBIA	-0.49	0.27	-0.76	2	0	3	0.40	6	-0.58	-0.33	0.62	0.41
ZWE ZIMBABWE	-2.15	-0.87	-1.28	4	0	2	0.67	5	-2.21	-1.57	0.67	0.36
Rule of Law												
ARG ARGENTINA	-0.71	0.28	-0.99	10	0	0	1.00	5	-0.71	-0.63	0.71	0.30
BRB BARBADOS	1.21	-0.28	1.49	1	0	0	1.00	3	1.39	0.93	0.40	0.65
HRV CROATIA	0.07	-0.53	0.60	4	1	1	0.80	7	-0.04	0.21	0.65	0.37
EST ESTONIA	0.91	0.35	0.56	4	1	1	0.80	9	0.80	0.94	0.59	0.43
IDN INDONESIA	-0.91	-0.36	-0.55	6	2	1	0.86	7	-0.79	-1.08	0.68	0.33
CIV IVORY COAST	-1.42	-0.69	-0.74	5	0	0	1.00	6	-1.29	-1.45	0.57	0.45
LTU LITHUANIA	0.60	-0.15	0.75	5	1	0	1.00	8	0.50	0.68	0.63	0.39
MLT MALTA	1.23	0.04	1.18	1	0	1	0.50	4	1.01	1.20	0.37	0.67
PRY PARAGUAY	-1.09	-0.50	-0.59	4	2	0	1.00	6	-0.96	-1.16	0.54	0.47
PHL PHILIPPINES	-0.62	-0.11	-0.50	6	2	1	0.86	5	-0.56	-0.70	0.71	0.31
SAU SAUDI ARABIA	0.20	0.75	-0.56	3	2	2	0.60	4	0.36	-0.22	0.70	0.31
SWZ SWAZILAND	-0.95	0.40	-1.34	2	0	0	1.00	6	-0.42	-1.06	0.25	0.77
THA THAILAND	-0.05	0.49	-0.54	6	1	2	0.75	5	-0.10	0.02	0.71	0.31
ZWE ZIMBABWE	-1.53	-0.24	-1.29	7	0	0	1.00	7	-1.40	-1.58	0.62	0.40
Control of Corruption												
BHR BAHRAIN	0.76	0.08	0.68	2	0	2	0.50	4	0.57	0.93	0.67	0.36
BGR BULGARIA	-0.04	-0.67	0.63	3	0	1	0.75	8	-0.11	-0.02	0.37	0.65
CHN CHINA	-0.51	-0.01	-0.49	4	1	2	0.67	5	-0.66	-0.31	0.56	0.46
CYP CYPRUS	0.80	1.58	-0.77	3	0	1	0.75	3	0.61	0.96	0.66	0.36
EST ESTONIA	0.82	0.05	0.76	3	0	0	1.00	10	0.58	0.83	0.30	0.72
ISL ICELAND	2.43	1.77	0.66	1	1	2	0.33	3	2.22	2.33	0.72	0.30
ISR ISRAEL	0.79	1.48	-0.69	4	0	2	0.67	4	0.81	0.48	0.75	0.27
CIV IVORY COAST	-1.01	0.41	-1.41	3	0	0	1.00	5	-0.88	-1.02	0.44	0.58
LVA LATVIA	0.23	-0.56	0.79	3	0	0	1.00	8	0.24	0.18	0.35	0.67
MDA MOLDOVA	-0.86	-0.21	-0.66	2	0	1	0.67	7	-0.90	-0.80	0.38	0.64
ESP SPAIN	1.45	0.77	0.68	5	2	0	1.00	4	1.42	1.16	0.75	0.27
ARE UNITED ARAB EMIRATES	1.23	0.19	1.04	4	0	0	1.00	3	1.15	1.10	0.67	0.36
ZWE ZIMBABWE	-1.01	-0.12	-0.89	4	0	1	0.80	6	-0.92	-1.02	0.55	0.47

Table 5: Agreement Ratio for All Changes in Governance, 1996-2004

ALL CHANGES

					Agree / (Agree +
		Agree	No Change	<u>Disagree</u>	Disagree)
	Sample				
Voice and Accountability	192	1.50	0.52	0.80	0.65
Political Stability	165	1.58	0.22	0.69	0.70
Government Effectiveness	180	1.51	0.51	0.70	0.68
Regulatory Quality	182	1.74	0.13	1.11	0.61
Rule of Law	167	1.62	1.34	1.13	0.59
Control of Corruption	151	1.12	0.86	0.67	0.63
Average	173	1.51	0.60	0.85	0.64

SIGNIFICANT CHANGES (90%)

					Agree / (Agree +
		<u>Agree</u>	No Change	<u>Disagree</u>	<u>Disagree)</u>
	Sample				
Voice and Accountability	19	3.32	0.05	0.32	0.93
Political Stability	21	2.52	0.05	0.38	0.91
Government Effectiveness	17	3.57	0.29	0.43	0.91
Regulatory Quality	13	3.69	0.00	1.31	0.76
Rule of Law	14	4.57	0.86	0.64	0.87
Control of Corruption	13	3.15	0.31	0.92	0.78
Average	16	3.47	0.26	0.67	0.86

Table 6: Global Trends in Governance 1996-2004 for Selected Sources

[Quasi-Balanced Sample]* ** *** †

		World Average			Sto	Std. Dev. Across Countries						
	# of Countries	<u>1996</u>	<u>1998</u>	<u>2000</u>	2002	<u>2004</u>	<u>199</u>	<u>1998</u>	<u>2000</u>	<u>2002</u>	<u>2004</u>	t-statistic for mean difference 1996-2004
Voice and Accountability	,											
EIU	115	0.41	0.42	0.42	0.46	0.46	0.30	0.32	0.31	0.28	0.28	1.5
PRS *	140	0.63	0.63	0.63	0.63	0.65	0.25	0.27	0.27	0.26	0.26	0.7
GCS **	88				0.49	0.51				0.14	0.14	••••
FRH (PR+CL)	190	0.56	0.58	0.58	0.60	0.62	0.34	0.33	0.33	0.33	0.33	1.7
FRH (Press Freedom)	188	0.54	0.53	0.54	0.55	0.53	0.24	0.26	0.25	0.25	0.25	-0.2
WMO	186				0.55	0.53				0.26	0.22	
Political Stability												
EIU	115	0.54	0.51	0.56	0.54	0.56	0.29	0.30	0.30	0.28	0.26	0.7
PRS *	140	0.78	0.71	0.73	0.75	0.75	0.15	0.20	0.17	0.14	0.13	-1.5
GCS **	88	0.73	0.74	0.63	0.66	0.67	0.14	0.16	0.18	0.17	0.13	-2.5 [-2.4]†
WMO	186				0.67	0.56				0.24	0.20	
Government Effectivene	ss											
EIU	115	0.39	0.45	0.44	0.38	0.38	0.30	0.24	0.24	0.29	0.30	-0.2
PRS *	140	0.63	0.66	0.57	0.64	0.62	0.19	0.12	0.11	0.17	0.15	-0.4
GCS **	82	0.48	0.52	0.53	0.54	0.55	0.22	0.28	0.27	0.24	0.23	1.9 [2.8]†
WMO	186				0.56	0.55				0.23	0.22	
Regulatory Quality												
EIU	115	0.42			0.51	0.55	0.25	j		0.25	0.23	4.3
GCS **	82	0.43	0.44	0.38	0.31	0.35	0.15	0.15	0.16	0.14	0.13	-3.4 [-3.0]†
WMO	186				0.58	0.61				0.25	0.17	
HERITAGE ***	155	0.50	0.48	0.49	0.50	0.50	0.30	0.31	0.31	0.29	0.28	0.0
Rule of Law												
EIU	115	0.47	0.50	0.48	0.52	0.52	0.27	0.30	0.30	0.26	0.26	1.4
PRS *	140	0.72	0.62	0.65	0.62	0.63	0.23	0.26	0.23	0.24	0.22	-3.4
GCS **	82	0.67	0.63	0.57	0.51	0.51	0.18	0.24	0.25	0.22	0.22	-4.6 [-2.9]†
WMO	186				0.58	0.57				0.23	0.20	
HERITAGE ***	155	0.50	0.48	0.46	0.44	0.44	0.30	0.31	0.31	0.29	0.28	-1.8
QLM	115	0.45	0.45	0.46	0.46	0.45	0.29	0.29	0.30	0.30	0.30	0.1
Control of Corruption												
EIU	115	0.35	0.34	0.33	0.35	0.35	0.31	0.32	0.31	0.32	0.33	0.2
PRS *	140	0.59	0.51	0.47	0.41	0.42	0.21	0.21	0.21	0.19	0.19	-7.2
GCS **	82		0.66	0.69	0.64	0.66		0.29	0.25	0.22	0.21	0.0 [-0.1]†
WMO	186				0.52	0.54				0.27	0.20	
QLM	115	0.39	0.40	0.40	0.40	0.38	0.29	0.29	0.29	0.29	0.29	-0.2

Note that all variables are scaled to run from 0 to 1

^{*} PRS Country coverage in 1996: 129 countries, all other periods 140.

 $^{^{\}star\star}$ GCS Country coverage in 1996: 58; in 1998: 59; in 2000: 75; and in 2002 and in 2004: 82.

^{***} Heritage Country coverage in 1996: 137; all other periods 155.

[†] Values in square brackets for GCS report t-stats for fully balanced sample from 1996 (same 52 countries)

Table 7: Persistence and Inference About Changes in Governance Over Time

Summary Statistics

	Correlations		Mean Abso	lute Changes	Persistence			
	Levels,	Levels,	Changes,				Average for	
	2004	1996	1996-2004	Static	Dynamic	Governance	Source Errors	
VA	1.00	0.99	0.96	0.27	0.14	0.93	0.39	
PV	0.99	0.99	0.98	0.44	0.30	0.78	0.39	
GE	0.99	0.99	0.93	0.27	0.11	0.92	0.35	
RQ	0.99	0.99	0.93	0.36	0.21	0.86	0.36	
RL	0.99	0.99	0.88	0.23	0.12	0.94	0.53	
CC	0.99	0.99	0.92	0.33	0.16	0.89	0.50	
Average	0.99	0.99	0.93	0.32	0.17	0.89	0.42	

Consequences of Persistence for Inference

	Mean t-Statistics		Number Sigr	nificant at 90%	Thumb	
	Static	Dynamic	Static	Dynamic	Number Significant	Also Significant in Dynamic Model
VA	0.85	0.57	26	13	12	12
PV	0.91	0.78	21	18	14	14
GE	0.69	0.41	12	1	1	1
RQ	0.86	0.63	25	14	11	9
RL	0.73	0.55	16	7	7	5
CC	0.90	0.58	26	7	10	7
Average	0.82	0.59	21	10	9	8

Table 8: De Jure and De Facto Measures

Dependent Variable is GCS '04: "Easy to Sta	rt a Business?'	1			
	1	2	3	4	5
All Countries					
# of Days to start business (DB '04)	-1.18	-0.43	-0.47	-0.60	-0.59
	5.46***	1.87*	1.96*	4.33***	4.19***
Corporate Tax Rate			-0.01		0.01
			1.06		0.69
Control of Corruption (2002)		0.47	0.45	0.18	0.18
		6.14***	5.84***	2.80***	2.81***
Administrative Regulations (GCS '04)				0.75	0.77
				9.86***	9.05***
Observations (# of countries)	81	81	81	81	81
Adjusted R-squared	0.23	0.44	0.44	0.71	0.71
Developing Countries					
# of Days to start business (DB '04)	-0.49	-0.32	-0.29	-0.49	-0.47
•	1.44	0.95	0.86	2.42**	2.25**
Corporate Tax Rate			0.01		0.01
			0.66		0.73
Control of Corruption (2002)		0.50	0.53	0.19	0.22
		3.30***	3.08***	1.48	1.67
Administrative Regulations (GCS '04)				0.83	0.82
				8.76***	8.73***
Observations (# of countries)	56	56	56	56	56
Adjusted R-squared	0.01	0.19	0.18	0.57	0.57
OECD + Newly-Industrialized Countries					
# of Days to start business (DB '04)	-0.97	-0.53	-0.57	-0.73	-0.74
	3.29***	1.65	1.88*	3.41***	3.33***
Corporate Tax Rate			-0.04		0.00
			1.92*		0.09
Control of Corruption (2002)		0.75	0.62	0.29	0.29
		2.85***	2.38**	1.28	1.25
Administrative Regulations (GCS '04)				0.64	0.65
				4.44***	3.51***
Observations (# of countries)	25	25	25	25	25
Adjusted R-squared	0.18	0.36	0.46	0.69	0.67

Note: DB refers to "Doing Business" study, GCS refers to Global Competitiveness Survey

Table 8, Cont'd: De Jure and De Facto Measures

Dependent Variable is GCS '04: "How Heavy Is Overall Tax Burden?"										
	1	2	3	4	5					
All Countries										
# of Days to start business (DB '04)			-0.96		-0.27					
			0.46		0.15					
Corporate Tax Rate	0.29	0.28	0.27	0.18	0.18					
	2.37**	2.29**	2.22**	1.58	1.55					
Control of Corruption (2002)		-0.77	-0.96	0.58	0.52					
		1.27	1.19	0.91	0.62					
Administrative Regulations (GCS '04)				-4.29	-4.28					
				3.91***	3.91***					
Observations (# of countries)	81	81	81	81	81					
Adjusted R-squared	0.09	0.09	80.0	0.24	0.23					
Developing Countries										
# of Days to start business (DB '04)			-2.06		-1.46					
			0.68		0.54					
Corporate Tax Rate	0.11	0.02	0.01	0.03	0.02					
	0.71	0.15	0.09	0.16	0.11					
Control of Corruption (2002)		-2.66	-2.80	-1.59	-1.71					
		1.78*	1.88*	1.07	1.16					
Administrative Regulations (GCS '04)				-2.93	-2.87					
				1.62	1.60					
Observations (# of countries)	56	56	56	56	56					
Adjusted R-squared	0.00	0.04	0.03	0.09	0.08					
OECD + Newly-Industrialized Countries										
# of Days to start business (DB '04)			0.96		2.37					
			0.35		0.93					
Corporate Tax Rate	0.63	0.64	0.64	0.33	0.32					
	4.59***	4.43***	4.52***	3.56***	3.90***					
Control of Corruption (2002)		0.47	0.78	2.63	3.49					
		0.23	0.32	1.70	1.94*					
Administrative Regulations (GCS '04)				-5.15	-5.38					
				4.54***	4.89***					
Observations (# of countries)	25	25	25	25	25					
Adjusted R-squared	0.47	0.45	0.42	0.65	0.65					

Note: DB refers to "Doing Business" study, GCS refers to Global Competitiveness Survey

Governance Matters IV: Appendices¹

Daniel Kaufmann, Aart Kraay, and Massimo Mastruzzi

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¹ This document presents the Appendices to our research paper "Governance Matters IV: Updated Governance Indicators 1996-2004". The paper, as well as a synthesis, can be downloaded at: http://www.worldbank.org/wbi/governance/pubs/govmatters4.html.

TABLE A1. African Development Bank (ADB)

A1: African Development Bank (ADB)

http://www.afdb.org/

The African Development Bank (ADB) is a major development bank in Africa. Established in 1963 in order to promote economic and social development, the Bank has grown into a \$33 billion, multinational development bank, with 52 African countries and 24 other shareholders.

The African Development Bank develops its own "Country Policy and Institutional Assessment" for its own Client sample. Similarly to the World Bank's CPIA, the ADB Indicators annually assess the quality of African Development Bank borrowers' policy and institutional performance in areas relevant to economic growth and poverty reduction.

In the table below we list the variables included in each of the governance indicators. We use data from 2000, 2002 and 2004.

Table A1: Africa Development Bank (50 Afric	an co	unt	tries)			
Voice and Accountability NA	20	04	2002	2000	1998	1996
Political Stability						
NA NA	.					
Government Effectiveness						
Policies to improve efficiency of public sector	$ \rangle$		X	X		
Budget Management Efficiency of Public Expenditures		(X	X X		
Management of public debt		(X	X		
Regulatory Quality						
Trade policy	>		Χ	Χ		
Competitive environment	>		X			
Labor Market Policies	$\parallel \parallel \rangle$	(Χ	Χ		
Rule of Law						
Property rights	$ \rangle$	(Χ	Χ		
Control of Corruption						
Anti-corruption policies	>		Χ	Χ		
Transparency / corruption	>	(X	Χ		

TABLE A2. Afro-Barometer (AFR)

A2: Afrobarometer (AFR)

http://www.afrobarometer.org

The Afrobarometer is a joint enterprise of Michigan State University (MSU), the Institute for Democracy in South Africa (IDASA) and the Centre for Democracy and Development (CDD, Ghana). The Afrobarometer Series, launched in October 1999, reports the results of national sample surveys on the attitudes of citizens in selected African countries towards democracy, markets and other aspects of development. The objective of the Afrobarometer is to collect, analyze and disseminate cross-national, time-series attitudinal data for up to a dozen new democracies on the African continent.

In the table below we list the variables included in each of the governance indicators. We use data from the 2002 and 2004 Reports.

Table A2: Afrobarometer (12 African cou	ntries)	١			
Voice and Accountability	2004	2002	2000	1998	1996
How much do you trust the parliament?	l x				
Overall, how satisfied are you with the way democracy works in your country?	X	X			
Political Stability					
NA NA					
Government Effectiveness What proportion of the country's problems do you think the government can solve?	X				
Regulatory Quality NA					
Rule of Law Over the past year, how often have you or anyone in your family feared crime in your own home?	x				
Over the past year, how often have you or anyone in your family had something stolen from your house?	Х				
Over the past year, how often have you or anyone in your family been physically attacked?	Х				
How much do you trust the courts of law? How much do you trust the police?	X X	 X			
Control of Corruption					
Corruption: How common is corruption among public officials?		Х			••
How well would you say the current government is handling the fight of corruption in the government?	Х				
How many elected leaders (parliamentarians or local councilors) do you think are involved in corruption?	Х				
How many judges and magistrates do you think are involved in How many government officials do you think are involved in	Х				
corruption?	Х				
How many border officials do you think are involved in corruption?	X				

TABLE A3. Asian Development Bank (ASD)

A3: Asian Development Bank (ASD)

http://www.adb.org/

The Asian Development Bank is a multilateral development finance institution dedicated to reducing poverty in Asia and the Pacific. Established in 1966, the ADB - headquartered in Manila and with 26 offices worldwide - is currently owned by 63 members, mostly from the region.

The Asian Development Bank develops its own "Country Policy and Institutional Assessment" for its own Client sample. Similarly to the World Bank's CPIA, the ASD Indicators annually assess the quality of Asian Development Bank borrowers' policy and institutional performance in areas relevant to economic growth and poverty reduction.

In the table below we list the variables included in each of the governance indicators. We use data from 2000, 2002 and 2004.

Table A3: Asian Development Bank (26 Asia	ın	count	ries)			
Valanta di Annone de l'ille		2004	2002	2000	1998	1996
Voice and Accountability	Ш					
NA		••	••		••	
Political Stability						
NA						
Government Effectiveness						
Competence of civil service	Ш	Χ	Χ	Χ		
Budget Management	Ш	Χ	Χ	X X		
Efficiency of Public Expenditures	Ш	Χ	X X	Χ		
Management of public debt		Χ	Χ	Χ		••
Regulatory Quality						
Trade policy	Ш	Χ	Χ	Χ		
Competitive environment	Ш	Χ	Χ	Χ		
Factor and products markets		Χ	Χ	Χ		
Rule of Law						
Property rights		X	Χ	Χ	••	
Control of Corruption						
Anticorruption and Accounting Institutions		Χ	Χ	Χ		

TABLE A4: Bertelsmann Transformation Index (BTI)

A4: Bertelsmann Tranformation Index (BTI)

http://www.bertelsmann-transformation-index.de/16.0.html?&L=1

Founded by Reinhard Mohn in 1977 and headquartered in Berlin, the **Bertelsmann Foundation** is a non-profit organization dedicated to identifying social problems and challenges early on in order to develop and implement model solutions.

Starting in 2004, the Foundation began publishing the **Bertelsmann Transformation Index** (BTI), a global ranking that analyzes and evaluates development and transformation processes in 116 countries. The Bertelsmann Transformation Index provides the international public and political actors with a comprehensive view of the status of democracy and a market economy as well as the quality of political management in each of these countries.

The goal of a consolidated market-based democracy constitutes the BTI's normative framework. The BTI analyzes the status of both democratization and market liberalization as it evaluates actors' performance in managing these changes. The quantitative data collected for the Bertelsmann Transformation Index 2003 is outlined in two parallel indices: the **Status Index** and the **Management Index**. The Status Index (SI) shows the development achieved by 116 states on their way toward democracy and a market economy. States with functioning democratic and market-based structures receive the highest scores. The Management Index (MI) reveals the extent to which governments and political actors have been consistent and determined in their pursuit of a market-based democracy. Those states showing progress in the last five years and in which transformation has resulted from astute management receive the highest scores.

In the table below we list the variables included in each of the governance indicators. We use data from 2004, drawing 5 variables from the Management Index and 6 variables from the Status Index.

Table A4: Bertelsman Transformation Index (116 de	velo	oing c	ountr	ies)		
		2004	2002	2000	1998	1996
Voice and Accountability						
Political Participation (SI)		Х				
Institutional Stability (SI)		Х				
Political and Social Integration (SI)		Х				
Political Stability						
NA						
Government Effectiveness						
Consensus Building (MI)		Х				
Governance Capability (MI)		Х				
Effective Use of Resources (MI)		Х				
Reliable Pursuit of Goals (MI)		Х				
Regulatory Quality						
Price Stability (SI)		Х				
Competition (SI)		Х				
Rule of Law						
Rule of Law (SI)		Х				
Private Property (SI)		Х				
Control of Corruption						
NA NA						

TABLE A5. Business Environment and Enterprise Performance Survey (BEEPS)

A5: Business Environment and Enterprise Performance Survey (BEEPS)

http://info.worldbank.org/governance/beeps2002/

The Business Environment and Enterprise Performance Survey (BEEPS) was developed jointly by the World Bank and the European Bank for Reconstruction and Development. In its first round conducted in 1999-2000, it surveyed over 4,000 firms in 22 transition countries that examined a wide range of interactions between firms and the state. In its second round conducted in 2002, the survey covered over 2,100 firms in 27 countries.

In the table below we list the variables included in each of the governance indicators. We use data from 2002/3 (for both 2002 and 2004) and 1999/2000 surveys.

Weign and Approximately 1966.	2004	2002	2000	1998	1996
Voice and Accountability					
NA	l I "	••	••	••	••
Political Stability and Lack of Violence					
NA					
Government Effectiveness					
How problematic are telecommunications for the growth of your business	l x	Χ			
How problematic is electricity for the growth of your business.	X	Χ			
How problematic is transportation for the growth of your business.	X	Χ			
Regulatory Quality					
Information on the laws and regulations is easy to obtain	X	Χ			
Interpretations of the laws and regulations are consistent and predictable	X	Χ			
Unpredictability of changes of regulations	X	Χ			
How problematic are labor regulations for the growth of your business.	X	Χ			
How problematic are tax regulations for the growth of your business.	X	Χ			
How problematic are custom and trade regulations for the growth of your business.	X	Χ			
Rule of Law					
How often is following characteristic associated with the court system: Fair	X	Χ			
How often is following characteristic associated with the court system: affordable	X	Χ			
How often is following characteristic associated with the court system: enforceable	X	Χ			
How often is following characteristic associated with the court system: Honesty	X	Χ			
How often is following characteristic associated with the court system: Quickness	X	Χ			
Are property rights adequately protected	X	Χ			
How problematic is organized crime for the growth of your business.	X	Χ			
How problematic is judiciary for the growth of your business.	X	Χ			
How problematic is street crime for the growth of your business.	X	Χ			
Control of Corruption					
How common is for firms to have to pay irregular additional payments to get things done	X	Χ			
Percentage of total annual sales do firms pay in unofficial payments to public officials	X	Χ			
How often do firms make extra payments to influence the content of new legislation	X	Χ			
Extent to which firms' payments to public officials impose costs on other firms	X	Χ	Χ		
How problematic is corruption for the growth of your business.	l I x	Χ			

TABLE A6: Business Environment Risk Intelligence (BRI, QLM)

A6: Business Environment Risk Intelligence (BRI)

http://www.beri.com

BERI S.A. is a private source of analysis and forecasts of the business environment in developed and developing countries. The firm was founded in 1966 and is headquartered in Geneva, Switzerland.

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. Both services are supervised by Dr. F.T. Haner, founder and senior editor. A number of analysts review various data sources and produce initial draft reports, relying on an international network of sources for intelligence in the field. 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.

BERI 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.

BERI also produced a different set of indicators, the Quantitative Risk Measure in Foreign Lending (QLM), measurings the qualitative risk factors in credit exposure in 115 countries using a scale from 0 (high risk) to 100 (low risk). In the table below we list the variables included in each of the governance indicators. We use BERI's data for the last quarters of 1996, 1998, 2000, 2002 and 2004.

	2004	2002	2000	1998	1996
Voice and Accountability					
NA					
Political Stability					
Political Risk Index: External Causes of Political Risk: Dependence	l x	Х	Х	Х	Х
on/Importance to a Hostile Major Power	^	^	^	^	^
Political Risk Index: External Causes of Political Risk: Negative Influences of	Х	Χ	X	Χ	Χ
Regional Political Forces Political Risk Index: Internal Causes of Political Risk: Social Conditions: Wealth					
Distribution, Population	Х	Χ	Χ	Х	Χ
Political Risk Index: Internal Causes of Political Risk: Fractionalization of political	l _x	Х	Х	Х	Х
spectrum and the power of these factions.	^	^	^	^	۸
Political Risk Index: Internal Causes of Political Risk: Fractionalization by	l x	Х	Х	Х	Х
language, ethnic and/or religious groups and the power of these factions. Political Risk Index: Internal Causes of Political Risk: Restrictive (coercive)					
measures required to retain power.	Х	Χ	Χ	Χ	Χ
Political Risk Index: Internal Causes of Political Risk: Organization and strength	١.,	.,	.,	.,	.,
of forces for a radical government.	X	Х	X	Х	Х
Political Risk Index: Symptoms of Political Risk: Societal conflict involving	l x	Х	Х	Х	Х
demonstrations, strikes, and street violence.	^	,,	,,	,,	,,
Political Risk Index: Symptoms of Political Risk: Instability as perceived by non-constitutional changes, assassinations, and guerilla wars.	Х	Χ	Χ	Χ	Χ
constitutional orlanges, assassinations, and guernia wars.					
Government Effectiveness					
Operation Risk Index: Bureaucratic delays	X	X	Х	Х	Х
Regulatory Quality					
NA ,					
Rule of Law					
Operation Risk Index: Enforceability of contracts	l x	Х	Х	Х	Х
Direct Financial Fraud, Money Laundering and Organized Crime (QLM) *	X	X	X	X	Х
Control of Corruption Political Rick Index: Internal Courses of Political Rick: Mantality including					
Political Risk Index: Internal Causes of Political Risk: Mentality, including xenophobia, nationalism, corruption, nepotism, willingness to compromise.	Х	Χ	Χ	Χ	Χ
Indirect Diversion of Funds (QLM) *	X	Χ	Χ	Χ	X
* country coverage: 115 countries					

TABLE A7: Columbia University (CUD)

A7: State Capacity Survey (CUD)

http://www.columbia.edu

The State Capcity Survey was developed in 1999 under the direction of Marc Levy of the CIESIN at Columbia University, resulting in a set of 31 multiple-choice questions and three open-ended questions. The survey asks questions in five broad categories: political context, state legitimacy, human resources and organizations, institutions, and overall capacity. Data were obtained on 108 and 97 countries from assessments completed by 164 experts during 2000 and 2002, respectively.

In the table below we list the questions included in each of the governance indicators. We use data from the 2000 and 2002/3 (applied to both 2002 and 2004) surveys.

Table A7: State Capacity Survey (97 developed and developing countr	ies)				
	2004	2002	2000	1998	1996
Voice and Accountability					
To what extent does the state and/or its allied groups engage in repression of its citizens?	X	Х	Х		
In carrying out internal security tasks, to what extent does the state rely on tactics commonly considered illegitimate in the international community?	Х	Х	Χ		
Political Stability					
Assess the degree to which the decline or collapse of central political authority posed a threat to political stability in this country.	X	Х	X		
Assess the degree to which political protest posed a threat to political stability in this country.	Х	Χ	Х		
Assess the degree to which ethno-cultural and/or religious conflict posed a threat to political stability in this country.	Х	Х	X		
Assess the degree to which external military intervention posed a threat to political stability in this country.	Х	Х	X		
Government Effectiveness					
Rate the administrative and technical skills of the country's civil service (occupying middle and higher management roles).	X	Х	X		
Rate the efficiency of the country's national bureaucracies overall.	Х	Χ	Χ		
Rate the efficiency of the country's local-level government bureaucracies overall.	Х	Χ	Χ		
Rate the effectiveness of coordination between the central government and local-level government organizations.	X	Χ	Χ		
Rate the state's ability to formulate and implement national policy initiatives.					
Rate the state's effectiveness at collecting taxes or other forms of government revenue.	Х	Х	X		
Does the central government produce a national budget in a timely manner?	X	X	X	••	
Do local governments produce budgets in a timely manner?	Х	Х	Х	••	••
Rate the state's ability to monitor socioeconomic trends, activities, and conditions within its borders	Х	Χ	Χ		
Rate the state's ability to create, deliver, and maintain vital national infrastructure.	Х	Χ	X		
Rate the state's ability to respond effectively to domestic economic problems.	Х	Χ	Χ		
Rate the state's ability to respond effectively to natural disasters.	Х	Χ	Χ		
Regulatory Quality NA					
			•	•	
Rule of Law		V	V		
For the most part, is the state seen as legitimately representing its citizens? Rate the state's adherence to the rule of law, considering the country as a whole.	X	X X	X X	••	
Trade the state's adherence to the rule of law, considering the country as a whole.	^	^	^		
Control of Corruption					
Rate the severity of corruption within the state	X	X	Х		
To what extent do the country's primary political decision makers engage in patterns of nepotism, cronyism and patronage?	Х	Χ	Χ		
To what extent do the country's civil service (occupying middle and higher management roles)	\ \ \		v		
engage in patterns of nepotism, cronyism and patronage?	Х	Х	Х	••	
To what extent do patterns of nepotism, cronyism and patronage undermine the state's ability to exercise the basic functions of government effectively?	Х	Χ	Χ		
To what extent do patterns of nepotism, cronyism and patronage distort broad patterns of economic development?	Х	Х	Х		

TABLE A8: Country Policy and Institutional Assessment (CPIA)

A8: Country Policy & Institutional Assessment (CPIA)

http://www.worldbank.org

The Country Policy and Institutional Assessment (CPIA) annually assesses the quality of World Bank borrowers' policy and institutional performance in areas relevant to economic growth and poverty reduction. Country assessments began in the World Bank in the late 1970s to help guide the allocation of lending resources. The methodology has evolved over time, reflecting lessons learned and mirroring the evolution of the development paradigm. While in earlier years assessments focused mainly on macroeconomic policies, they now include other factors relevant to poverty reduction, such as social inclusion, equity and governance.

The CPIA consists of equally weighted criteria representing the policy dimensions of an effective poverty reduction and growth strategy. The criteria are grouped in four clusters. Cluster A, Economic Management, covers economic policies. Cluster B, Structural Policies, covers a broad range of structural policies: trade policies, financial depth, market competition, and environmental sustainability. Cluster C, Policies for Social Inclusion and Equity, focuses on social equity and broad-based growth, and aims to capture the extent to which a country's policies and institutions ensure that the benefits of growth are widespread, contribute to the accumulation of social capital, and direct public programs to poor people and reduce their vulnerability to various kinds of shocks. Cluster D, Public Sector Management and Institutions, aims to capture key aspects of good governance, a vital

For each of the criteria, countries are assessed on a scale of 1 (low) to 6 (high). The ratings are prepared by the World Bank's country economists and focus on the quality of the country's current policies and institutions, which are the main determinants of the present prospects for aid effectiveness. The rating assigned for each criterion reflects a variety of indicators, observations, and judgments: ratings are based on country knowledge obtained from country dialogue and the Country Assistance Strategy (CAS) process, the available body of economic and sector work (ESW), project preparation and supervision, and project and CAS monitoring and evaluation.

In the table below we list the variables included in each of the governance indicators. We use data for 1996, 1998, 2000, 2002 and 2003. 2004 data was used for 17 benchmark countries.

	2004	2002	2000	1998	1996
Voice and Accountability					
NA					
Political Stability and Lack of Violence					
NA		••			
Government Effectiveness					
Management of external debt	Χ	Χ	Χ	Χ	Χ
Management of development programs	Χ	Χ	Χ	Χ	
Quality public Administration / Public expenditure management	Χ	Χ	Χ	Χ	Χ
Budget Management	Х	Χ	Χ		Χ
Efficiency of Public Expenditures	Х	Χ	Χ	Χ	Χ
Regulatory Quality					
Competitive environment	Χ	Χ	Χ	Χ	Χ
Factor and products markets	Χ	Χ	Χ	Χ	Χ
Trade policy	Х	Χ	Χ	Χ	Χ
Rule of Law					
Property rights	Х	Χ	Χ	Χ	
Control of Corruption					
Transparency, accountability and corruption in public sector	Х	Χ	Χ	Χ	

TABLE A9: Economist Intelligence Unit (EIU)

A9: The Economist Intelligence Unit (EIU)

http://www.eiu.com

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. 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. Our databases utilize data about the individual subcomponents of these country risk ratings, that were made available to us by EIU.

In the table below we list the variables included in each of the governance indicators. In this paper, we use data from January 1997, 1998, 2000 November 2002 and November 2004.

	20	004	2002	2000	1998	1996
Voice and Accountability						
Orderly transfers		Χ	Χ	X	X	Χ
Vested interests		Χ	Χ			Χ
Accountablity of Public Officials		Χ	Χ			Χ
Human Rights		Χ	Χ			Χ
Freedom of association		Χ	Χ			X
Political Stability						
Armed conflict		Χ	Χ	X	X	Χ
Violent demonstrations		Χ	Χ			Χ
Social Unrest		Χ	Χ	Χ	Х	Χ
International tensions / terrorist threat		Χ	Χ	Χ	X	Χ
Government Effectiveness						
Quality of bureaucracy / institutional effectiveness		Χ	Χ	Χ	Χ	Χ
Excessive bureacucracy / red tape		Χ	Χ	Χ	X	Χ
Government policy (pro business stance)				X	X	
Regulatory Quality						
Unfair competitive practices		Χ	Χ			Χ
Price controls		Χ	Χ			Χ
Discriminatory tariffs		Χ	Χ			Χ
Excessive protections		Χ	Χ			Χ
Discriminatory taxes		Χ	Χ			Χ
Rule of Law						
Violent crime		Χ	Χ	Χ	X	Χ
Organized crime		Χ	Χ	Χ	Χ	Χ
Fairness of judicial process		Χ	Χ	Χ	Χ	Χ
Enforceability of contracts		Χ	Χ			Χ
Speediness of judicial process		Χ	Χ			Χ
Confiscation/expropriation		Χ	Χ			Χ
Intellectual property rights protection		Χ	Χ			Χ
Private property protection		Χ	Χ			Χ
Control of Corruption						
Corruption among public officials		Χ	Χ	Χ	Χ	Χ
Country coverage		20	115	115	115	115

TABLE A10: European Bank for Reconstruction and Development (EBR)

A10: European Bank for Reconstruction and Development (EBR)

http://www.ebrd.org

The EBRD is an international organization which supports the transition towards open market-oriented economies and promotes 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.

The EBRD publishes an annual Transition Report, which includes a number of governance variables in its Transition Indicators and Survey of Legal Reforms. The Transition Report presents eight "Transition Indicators" representing "cumulative progress in the movement from a centrally planned economy to a market economy" for 26 transition economies. The subjective indicators are based on a checklist of various objective measures and reflect the views of EBRD staff.

Beginning in 1996, the EBRD has conducted in 26 countries 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. Both indices however were discontinued in 2003.

In this paper we use data from the 1996, 1998, 2000, 2002 and 2004 Transition Reports. In the table below we list the variables included in each of the governance indicators.

	2	2004	2002	2000	1998	199
Voice and Accountability						
NA					••	
Political Stability						
NA						
Government Effectiveness						
NA						
Regulatory Quality						
Price liberalisation		Χ	Χ	Χ	Χ	Χ
Trade & foreign exchange system		Χ	Χ	Χ	Χ	Χ
Competition policy		Χ	Χ	Χ	Χ	Χ
Commercial Law Extensiveness			Χ	Χ	Χ	
Commercial Law Effectiveness			Χ	Χ	Χ	
Financial Regulations: extensiveness			Χ	Χ	Χ	
Financial regulations: effectiveness			Χ	X	Χ	
Rule of Law						
NA						
Control of Corruption						
NA .						

TABLE A11: Freedom House (FRH, FHT, CCR)

A11: Freedom House (FRH, FNT, CCR)

http://www.freedomhouse.org.

Freedom House is a non-governmental organization which promotes democratic values around the world. Freedom House was established in 1941 and is headquartered in New York City.

We rely on data from three Freedom House publications. "Freedom in the World was launched in 1955", and became an annual publication in 1978, coverinbg 192 countries and/or related and disputed territories. "Nations in Transit" was launched in 1995 and covers 28 post-communist countries. Finally, "Countries at the CrossRoads" was launched in 2004 and covers 30 developing countries.

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 (FRH). This publication 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. For all countries, the subjective assessments are based on checklists of rights and freedoms. 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.

Freedom House Nations in Transit (FNT). This publication 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.

Countries at the Crossroads (CCR). This publication is a first-of-its-kind survey of democratic governance that evaluates performance in 30 key countries that are at a crossroads in determining their political future. The Countries at the Crossroads survey offers scholars, analysts, and officials a unique comparative tool for assessing government performance in the areas of civil liberties, rule of law, anticorruption and transparency, and

In the table below we list the variables included in each of the governance indicators. In this paper we use data from the 1995-1996, 1997-98, 2000-2001, 2002-2003 and 2004-2005 editions of Freedom in the World, the 2004 edition of Countries at the Crossroads and the 1996, 1998, 2000, 2002 and 2004 editions of Nations in Transit.

Voice and Accountability	2	2004	2002	2000	1998	199
Voice and Accountability						
Political Rights		Χ	Χ	Χ	Χ	X
Is the head of state and/or head of government or other chief authority elected through	Ш					
free and fair elections? Are the legislative representatives elected through free and fair elections?	Ш					
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?						
Sivil Liberties		Χ	Х	Х	Х	,
Are there free and independent media, literature and other cultural expressions?						
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	П					
size of family?						
Is there equality of opportunity, which includes freedom from exploitation by or	П					
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	П					

	2004	2002	2000	1998	199
Freedom of the Press	X	Х	Х	Х	Х
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: 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					
Nations in Transit					
Political Process: Deals with elections, referenda, party configuration, conditions for		.,		.,	
political competition, and popular participation in elections.	Х	Χ	Х	Х	Х
Civil Society: Highlights the degree to which volunteerism, trade unionism, and	X	Х	Х	Х	Х
professional associations exist, and whether civic organizations are influential					-
Independent Media: Press freedom, public access to a variety of information sources,	Х	Х	Х	Χ	Х
and independence of those sources from undue government or other influences.					
Countries at the Crossroads					
Civil Liberties	Х				
Accountability and public voice	Х				
Political Stability					
NA .					
Government Effectiveness					
Nations in Transit: Government and Administration: Government decentralization,					
independent and responsibilities or local and regional governments, and legislative and	Х	Χ	Χ	Χ	Х
executive transparency are discussed.					
Regulatory Quality					
N/A			••	••	
Rule of Law					
Nations in Transit: Considers judicial and constitutional matters as well as the legal and	X	Х	Х	Х	Х
de facto status of ethnic minorities. Countries at the Crossroads: Rule of Law	Х				
Journales at the Orossivaus. Itale of Law	^	••	••	••	••
Control of Corruption	1.	,,			
Nations in Transit: corruption Countries at the Cressrads: Anti-Corruption and Transparency	X	Х	Х	Х	
Countries at the Crossroads: Anti-Corruption and Transparency	X		••	••	••

TABLE A12: Furnar's Index of Budget Transparency (LAI)

A12: Furnar's Index of Budget Transparency

http://www.internationalbudget.org/themes/BudTrans/LA03.htm

The Index of Budget Transparency is coordinated by Fundar, a Mexican NGO, and leading NGOs in each country. 4 expert panels (Legislators, Media, Academic experts, NGOs) are asked to evaluate different aspects of the budget process in their countries such as access to budget information, citizen's participation and credibility of institutions.

Each country receive an overall transparency rating from 1 to 100, with 100 being highly transparent. The overall rating is based on the percentage of positive answers to questions within the following categories:

- 1. Citizen participation
- 2. Role and participation of the legislature
- 3. Information on macroeconomic criteria
- 4. Budget allocation
- 5. Changes in the budget
- 6. Budget oversight
- 7. Capacities of external control body
- 8. Credibility of the internal comptroller
- 9. Accountability
- 10. Supervision of federal officials
- 11. Information on federal debt
- 12. Quality of information and statistics
- 13. Responsibilities among governmental levels
- 14. Timelines of information

In the table below we list the variables included in each of the governance indicators. In this paper we use data from the 2001 and 2003 Reports.

	20	004	2002	2000	1998	199
Voice and Accountability						
Budget Transparency Index		X	Χ			
Political Stability and Lack of Violence						
NA						
Government Effectiveness						
NA						
Regulatory Quality						
NA						
Rule of Law						
NA						
Control of Corruption						
NA						

TABLE A13: Gallup International (GAL, GMS)

A13: Gallup International

http://www.gallup-international.com

Gallup International was founded in May 1947, is registered in Zurich, Switzerland, and has 55 members around the world governed by the same Code of Statutes to ensure technical competence and quality standards.

The Gallup International Millennium Survey polled 57,000 adults in 60 different countries of the world between August and October, 1999. The survey covered a wide range of topics of an ethical, political and religious nature, focusing specifically on issues related to democracy, the United Nations, human rights, women's rights, environment, religion, crime and basic values. This source asks several questions which also appeared in the Gallup 50th Anniversary Survey which we use for 1998.

In 2002, Gallup International initiated a worldwide survey (on an annual basis) called The Voice of the People. The survey interviews citizens all around the world and helps understand the opinion of today's world population on issues like the environment, terrorism, global issues, governance and democracy.

In the table below we list the variables included in each of the governance indicators. In this paper, we use data from the 2002 and 2004 Voice of the People Reports, the 2000 Gallup Millenium Survey and the 1997 50th Anniversary Survey.

Table A13: Gallup International Citizens Surveys (62 developed	П	2004	2002	2000	1998	1996
Voice and Accountability		200.	2002	2000	.000	.000
Trust in National Government			Χ			
Trust in the Parliament			X			
Percent who believe the country is governed by the will of the people				Χ		
Percent who belive elections are free and fair				Х		
Percent who believe the government is accountable				Χ		
Freedom of speech				Χ		
Fairness of elections		X				
Human Rights		X		••		•
Truman ragno		^	••	••	••	••
Political Stability						
Terrorism / crime		Х				
Torronom, onmo		^	••	••	••	
Government Effectiveness						
Percent who believe the government is efficient				Χ		
Toront who bolieve the government is emplore			••	^	••	••
Regulatory Quality						
NA						
TVA		••	••	••	••	
Rule of Law						
Trust in the Legal System			Х			
Concern with level of crime			^	 X		
Concern with level of chine		••	••	^	••	••
Control of Corruption						
Percent who believe the government is corrupt				Х		
Frequency of corruption		v	••	^	 X	••
		X			^	
Frequency of household bribery		X	••	••	••	
Extent of grand corruption		X				••
Extent of petty corruption		Х		••		
0		00	40	00	4.4	
Country coverage:		62	46	60	44	

TABLE A14: Global E-Governance (EGV)

A14: Global E-Governance

http://www.insidepolitics.org/egovt04int.pdf

The Global E-Governance Index is compiled by the Brown University's Center for Public Policy. Official websites are evaluated for the presence of various features dealing with information availability, service delivery, and public access. Features assessed included the name of the nation, region of the world, and having the following features: online publications, online database, audio clips, video clips, non-native languages or foreign language translation, commercial advertising, premium fees, user payments, disability access, privacy policy, security features, presence of online services, number of different services, digital signatures, credit card payments, email address, comment form, automatic email updates, website personalization, personal digital assistant (PDA) access, and an English version of the website.

Range for the E-Government index- 0 (bad)-100 (good) based on availability of publications and databases (72 points) and number of online services (28 points).

In the table below we list the variables included in each of the governance indicators. In this paper, we use data from the 2002 and 2004 Reports.

	2004	2002	2000	1998	199
Voice and Accountability					
NA					•
Political Stability and Lack of Violence					
NA					•
Government Effectiveness					
Global E-governance Index	Х	Χ			
Regulatory Quality					
NA					
Rule of Law					
NA					
Control of Corruption					
NA					

TABLE A15: Global Insight's DRI/McGraw-Hill (DRI)

A15: Global Insight's DRI/McGraw-Hill

http://www.globalinsight.com

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 and is based in the United States.

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.

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 117 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 below.

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.

In the table below we list the variables included in each of the governance indicators. Variable definitions consist of risk events. The actual ratings provide an estimated probability of these events happening. In this paper, we use data for the fourth quarters of 1996, 1998, 2000, 2002 and 2004.

	20	004	2002	2000	1998	1996
Voice and Accountability NA						
TVA				••	••	
Political Stability						
Domestic Political Risks: Military Coup Risk: A military coup d'etat (or a series of such events) that reduces the GDP growth rate by 2% during any 12-month period.		Χ	Χ	Х	Х	Х
Domestic Political Risks: 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.		X	Х	Х	Х	Х
Domestic Political Risks: Political Terrorism: An increase in scope or intensity of terrorism that reduces the GDP growth rate by 1% during any 12-month period.		X	Χ	Χ	Χ	Х
Domestic Political Risks: Political Assassination: A political assassination (or a series of such events) that reduces the GDP growth rate by 1% during any 12-month period.		X	Χ	Χ	Χ	Х
Domestic Political Risks: 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.		X	Χ	Χ	Χ	Х
Domestic Political Risks: 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.		Χ	X	Х	Х	X

, , , , , , , , , , , , , , , , , , ,	2004	2002	2000	1998	199
Government Effectiveness					
Domestic Political Risk: 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.	Х	Χ	Χ	Χ	Χ
Domestic Political Risk: Government Ineffectiveness: A decline in government personnel	X	Х	Х	Х	Х
quality at any level that reduces the GDP growth rate by 1% during any 12-month period.					
Domestic Political Risk: 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.	X	X	Х	Х	X
Regulatory Quality					
Policies Non-Tax: 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.	x	Х	х	Х	Х
Policies Non-Tax: Regulations Imports: A 2% reduction in import volume as a result of a vorsening 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.	x	Х	Х	Х	Х
Policies Non-Tax: Regulations Other Business: An increase in other regulatory burdens, with espect to the level at the time of the assessment, that reduces total aggregate investment in eal LCU terms by 10%	x	Х	X	X	X
Policies Non-Tax: Ownership of Business by Non-Residents: A 1-point increase on a scale rom "0" to "10" in legal restrictions on ownership of business by non-residents during any 12-nonth period.	x	Х	X	Х	Х
Policies Non-Tax: 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.	X	Х	X	X	X
Rule of Law					
Outcomes Non-Price: Losses and Costs of Crime: A 1-point increase on a scale from "0" to 10" in crime during any 12-month period.	x	Χ	Х	Χ	X
Domestic Political Risk: 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.	x	Х	X	X	×
Policies Non-Tax: 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.	X	Х	Х	Х	Х
Policies Non-Tax: 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.	Х	Х	Х	X	X
Control of Corruption					
Risk Event Outcome non-price: Losses and Costs of Corruption: A 1-point increase on a scale	_	~	~	~	X
rom "0" to "10" in corruption during any 12-month period.	Х	Χ	Χ	Χ	

TABLE A16: Heritage Foundation / Wall Street Journal (HER)

A16: Heritage Foundation/Wall Street Journal

http://www.heritage.org

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.

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 is intended to assist international investors and aid donors in the allocation of their resources. 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.

In the table below we list the variables included in each of the governance indicators. In this paper, we use Heritage data for 1996, 1998, 2000, 2002 and 2004.

Voice and Accountability	2	2004	2002	2000	1998	199
NA						
Political Stability						
NA						
Government Effectiveness						
NA						
Regulatory Quality						
Regulation		Χ	Χ	Χ	Χ	Χ
Government Intervention		Χ	Χ	Χ	Χ	Χ
Wage/Prices		Χ	Χ	Χ	Χ	Χ
Trade		Χ	Χ	Χ	Χ	Χ
Foreign investment		Χ	Χ	Χ	Χ	Χ
Banking		Χ	Χ	X	X	Χ
Rule of Law						
Black market		Χ	Χ	Χ	Χ	Χ
Property Rights		Χ	Χ	Χ	Χ	X
Control of Corruption						
NA						

TABLE A17: IJET's Country Security Risk Ratings (IJT)

A17: IJET's Country Security Risk Ratings

https://worldcue.ijet.com/tic/login.jsp

iJET is a privately held company founded in October 1999 and is based in Annapolis, MD. iJET monitors the world around-the-clock and alerts travelers, expatriates and decision-makers to events and situations in real-time to help them avoid or minimize risk and travel disruptions abroad. iJET's professional services offer in-depth analysis of changing risks around the world, and allows organizations to monitor, locate and communicate with traveling employees and expatriates.

In our paper, we use the iJET's security risk ratings for 167 countries worldwide in 2004.

	2004	2002	2000	1998	199
Voice and Accountability					
NA					
Political Stability					
Security Risk Rating	Х				
Government Effectiveness					
NA					
Regulatory Quality					
NA					
Rule of Law					
NA					
Control of Corruption					
NA	l				

TABLE A18: Institute for Management Development (WCY)

A18: Institute for Management Development (WCY)

http://www.imd.ch.

The Institute for Management Development is an research and educational organization based in Lausanne, Switzerland. It has published the World Competitiveness Yearbook since 1987. Until 1996, this was a joint effort with the World Economic Forum. 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 over 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 the table below we list the questions included in the governance database.

In the table below we list the variables included in each of the governance indicators. We use data from the 1996, 1998, 2000, 2002 and 2004 editions of the World Competitiveness Yearbook.

	2004	2002	2000	1998	1996
Voice and Accountability		V	V	V	V
Transparency of Government policy	X	Х	Х	Х	Х
Political Stability The risk of a little line to bility is some bigs.		V	V		
The risk of political instability is very high	X	Χ	Х	••	
Government Effectiveness					
Government economic policies do not adapt quickly to changes in the economy	X	Χ	X		Х
The public service is not independent from political interference	X	Χ	Χ	Χ	Х
Government decisions are not effectively implemented	X	Χ	Χ	Χ	
Bureaucracy hinders business activity	X	X	X	Χ	Х
The distribution infrastructure of goods and services is generally inefficient	X	X	X	••	Х
Political System is not adapted to todays' economic challenges	::		Х		Х
Policy direction is not consistent	X	••	••	••	
Regulatory Quality					
The exchange rate policy of your country hinders the competitiveness of firms	X	Χ	••		
Protectionism in the country negatively affects the conduct of business	X	X	Χ	Χ	
Competition legislation in your country does not prevent unfair competition	X	Χ	Χ	Χ	Χ
Price controls affect pricing of products in most industries	X	Χ	Χ	Χ	Χ
Legal regulation of financial institutions is inadequate for financial stability	X	Χ	Χ	Χ	Χ
Foreign financial institutions do not have access to the domestic market		Χ			Χ
Access to capital markets (foreign and domestic) is easily available	X	Χ			
Ease of doing business is not a competitive advantage for your country	X	Χ			
Financial institutions' transparency is not widely developed in your country	X	Χ		••	
Customs' authorities do not facilitate the efficient transit of goods	X	Χ	Χ	X	
The legal framework is detrimental to your country's competitiveness	X	X	X	X	
Foreign investors are free to acquire control in domestic companies	X	X	X	X	
Public sector contracts are sufficiently open to foreign bidders	X	X	X	X	X
Real personal taxes are non distortionary	X	X	X	X	Х
Real corporate taxes are non distortionary	X	X	Х	Х	
Banking regulation does not hinder competitiveness	Х	Χ	 V	 V	
Political system as obstacle to development	 X	••	Χ	Х	
Labor regulations hinder business activities	X X	••	••	••	
New Legislation restricts competitiveness Subsidies impair economic development	ll \hat{x}	••	••	••	
Ease to start a business	ll x				
		-	-	-	
Rule of Law Tax evasion is a common practice in your country	ll x	Х	Χ	v	
Tax evasion is a common practice in your country Justice is not fairly administered in society	ll x	X	X	X X	 X
Personal security and private property are not adequately protected	X	X	X	X	X
Parallel economy impairs economic development in your country	X X	X	X	X	X
Insider trading is common in the stock market	ll x	X			X
Patent and copyright protection is not adequately enforced in your country	x	X		X	X
Control of Corruption					
Bribing and corruption exist in the economy	Х	Χ	Χ	Χ	Х

TABLE A19: International Research & Exchanges Board (MSI)

A19: Media Sustainability Index (MSI)

http://www.irex.org

The International Research & Exchanges Board (IREX) is an international nonprofit organization specializing in education, independent media, Internet development, and civil society programs. Through training, partnerships, education, research, and grant programs, IREX develops the capacity of individuals and institutions to contribute to their societies.

Through the financial assistance of USAID, IREX introduced in 2002 the Media Sustainability Index, a valuable tool for media development practitioners, public officials, scholars and others concerned about the region's media. The Media Sustainability Index is the only study that looks at the entire media system in each of 20 countries in Southeast Europe and Eurasia. The MSI analyzes issues such as freedom of speech, plurality of media available to citizens, professional journalism standards, business sustainability of media, and the efficacy of institutions that support independent media.

In the table below we list the variables included in each of the governance indicators. We use data from the 2002 and 2004 Reports

	2004	2002	2000	1998	199
Voice and Accountability					
Media Sustainability Index	X	Χ			••
Political Stability and Lack of Violence					
NA					
Government Effectiveness					
NA					
Regulatory Quality					
NA					
Rule of Law					
NA					
Control of Corruption					
NA					

TABLE A20: Latinobarometro (LBO)

A20: Latinobarometro

http://www.latinobarometro.org

Latinobarometro is a public opinion survey representing the opinions, attitudes, behaviour and values of citizens of the countries in which it is conducted. The survey began being applied regularly in 8 countries of the region in 1995, and in 17 countries beginning in 1996. Latinobarometro conducts an annual survey, using representative samples and an identical questionnaire in each country. It asks questions in in the following areas: Economy and International Trade, Integration and Regional Trading Blocks, -Democracy, Politics and Institutions, Social Policies, Civic Culture, Social Capital and Social Fraud, The Environment, Current Issues.

In the table below we list the variables included in each of the governance indicators. We use data from the 1996, 1998, 2000, 2002 and 2004 surveys.

Table A20: Latinobarometro (17 Latin Ame	rican	cour	ntries))		
		2004	2002	2000	1998	1996
Voice and Accountability		~	V		V	V
Satisfaction with democracy Trust in Parliament		X	Λ		X X	Х
Trust in Fanianient		^	••	••	^	
Political Stability						
Country terrorist threat			Χ			
Government Effectiveness						
Trust in Government		Χ	Χ			
Regulatory Quality						
NA						
		••	••	••	••	
Rule of Law						
Trust in Judiciary		Χ	X X	X X	Χ	Χ
Trust in Police		Χ	Χ	Χ	Χ	Χ
Have you been a victim of crime?		Χ				
Control of Corruption						
Frequency of corruption		Х	Χ	Х	Х	
It is likely to bribe policemen		X	^	^	^	
It is likely to bribe judges		X				
It is likely to bribe public servants		X				
,,						

TABLE A21: Merchant International Group (MIG)

A21: Merchant International Group (MIG)

http://www.merchantinternational.com

Established in 1982, the Merchant International Group Limited ("MIG") is a strategic research and corporate intelligence company developed to provide a range of support services (from identification to evaluation of all manner of risks, weaknesses and threats) to corporates in non-domestic markets.

MIG developed a framework that identifies ten distinctive categories of Grey Area Dynamics™. Each refers to a range of events, activities and trends that impact upon business. Their impact is of varying severity and may be positive or negative, though typically, Grey Area Dynamics™ take the form of obstacles to progress in non-domestic markets.

In the table below we list the variables included in each of the governance indicators. We use data from 2002 and 2004.

Table A21: Grey Area Dynamics (154 developed ar	nd deve	loping	g cour	ntries)	
Voice and Accountability NA		2004	2002	2000	1998	1996
Political Stability and Lack of Violence Extremism		Х	X			
Government Effectiveness Bureaucracy		Х	Х			
Regulatory Quality Unfair Trade Unfair Competition		X X	X X			
Rule of Law Legal Safeguards Organized Crime		X X	X X			
Control of Corruption Corruption		Х	X			
Country coverage		155	118			

TABLE A22: Political Economic Risk Consultancy (PRC)

A22. Political Economic Risk Consultancy (PRC)

http://www.asiarisk.com/

Founded in 1976 and headquartered in Hong Kong, the Political and Economic Risk Consultancy specializeds in strategic information and analysis for companies doing business in the countries in East and Southeast Asia.

PERC has conducted various surveys of expatriate business managers in the East Asia region. The original results of these surveys were published under the titles "Corruption in Asia in 1999" (from Asian Intelligence Issue #531 March 23, 1999). Based on the average responses in these surveys, PERC has produced country ratings. In this paper, we use data from the 1998, 2000, 2002 and 2004 surveys.

Corruption in Asia

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?"

	2004	2002	2000	1998	1996
Voice and Accountability					
NA		••			
Political Stability					
NA					
Government Effectiveness					
NA					
Regulatory Quality					
NA					
Rule of Law					
NA					
Control of Corruption					
To what extent does corruption exist in a way that detracts from the	X	Χ	X	X	
business environment for foreign companies?	^	٨	^	^	••

TABLE A23: Political Risk Services (PRS)

A23: Political Risk Services (PRS)

http://www.prsgroup.com

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.

Since 1982, PRS has produced 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. 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.

In the table below we list the variables included in each of the governance indicators. In this paper we use data from 1996, 1998, 2000, 2002 and 2004.

Table A23: Political Risk Services (140 developed and develop	oing c	ountri	es)		
Voice and Accountability	2004	2002	2000	1998	1996
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.	х	X	X	Х	х
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.	х	X	Х	X	Х
Political Stability					
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 busines.	x	X	X	Х	Х
External conflict: The external conflict measure is an assessment both of the risk to the incumbent government and to inward investment. It ranges from trade restrictions and embargoes, whether imposed by a single country, a group of countries, or the international community as a whole, through geopolitical disputes, armed threats, exchanges of fire on borders, border incursions, foreign-supported insurgency, and full-scale warfare.	х	Х	Х	Х	х
Ethnic tensions: This component measures the degree of tension within a country attributable to racial, nationality, or language divisions. Lower ratings are given to countries where racial and nationality tensions are high because opposing groups are intolerant and unwilling to compromise. Higher ratings are given to countries where tensions are minimal, even though such differences may still exist.	х	X	Х	Х	х
Government Effectiveness					
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 as: the type of governance, the cohesion of the government and governing party or parties, the closeness of the next election, the government command of the legislature, and approval of government policies.	x	Х	Х	X	Х
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.	х	X	X	Х	х
Regulatory Quality					
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.	х	Х	Х	X	Х
Rule of Law 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.	X	X	X	X	Х
Control of Corruption					
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 inherently instability in the political system.	х	X	Х	X	Х

TABLE A24: PriceWaterhouseCoopers (OPF)

A24. PriceWaterhouseCoopers (OPF)

http://www.opacityindex.com/

PricewaterhouseCoopers (OPF) is a U.S.-based professional services firm. It has set up an "Endowment for Transparency and Sustainability" aimed at supporting research efforts world-wide that shed light on two related topics of global importance: transparency in business and government, and sustainable economic development. Using a team of economists, survey professionals, analysts, and distinguished advisors, it has constructed an "Opacity Index" measuring the lack of transparency in 35 countries.

Opacity is defined as "the lack of clear, accurate, formal, easily discernible, and widely accepted practices" in the following areas: corruption in government bureaucracy, laws governing contracts or property rights, economic policies, accounting standards, and business regulation. The index was constructed based on responses to a survey of chief financial officers of medium- and large firms, equity analysts, bankers, and PWC employees resident in each country surveyed. The survey was conducted in 35 industrial and major developing countries during the second and third quarter of 2000.

In the table below we list the variables included in each of the governance indicators. We use data from 2000.

	2004	2002	2000	1998	1996
Voice and Accountability NA					
Political Stability NA					
Government Effectiveness Economic			Х		
Regulatory Quality Regulation			X		
Rule of Law NA					
Control of Corruption Corruption			X		

TABLE A25: Reporters Without Borders (RSF)

A25: Reporters Without Borders

http://www.rsf.org

Reporters Without Borders - headquartered in Paris - is an international organization dedicated to the protection of reporters and respect of press freedom in the world. In 2002, International Reporters Without Borders published its first worldwide press freedom index, compiled for 139 countries. The organisation's initiatives are being carried out on five continents through its national branches and its offices in Abidjan, Bangkok, Buenos Aires, Istanbul, Montreal, Nairobi, New York, Tokyo and Washington. It also works in close co-operation with local and regional press freedom organisations and with members of the "Reporters without Borders' Network."

The index was drawn up by asking journalists, researchers and legal experts worldwide to answer 50 questions about the whole range of press freedom violations (such as murders or arrests of journalists, censorship, pressure, state monopolies in various fields, punishment of press law offences and regulation of the media).

In the table below we list the variables included in each of the governance indicators. We use data from 2002 and 2004.

		2004	2002	2000	1998	199
Voice and Accountability						
Press Freedom Index		Χ	X			
Political Stability and Lack of Violence						
NA						
Government Effectiveness						
NA						
Regulatory Quality						
NA						
Rule of Law						
NA						
Control of Corruption						
NA						

TABLE A26: State Department / Amnesty International (HUM / PTS)

A26: State Department / Amnesty International - Human Rights Database

http://www.humanrightsdata.com

http://www.unca.edu/politicalscience/faculty-staff/gibney_docs/pts.xls

We gather data from two different studies who have compiled a set of human rights indicators, drawing from the State Department's and Amnesty International's Human Rights Reports

The State Department's Country Reports on Human Rights Practices cover global human rights practices in the previous calendar years. Reports are generated through data gathered by the State Department from all of its embassies and representations throughout the world.

The Amnesty International's Annual Reports cover global human rights conditions for the previous calendar years. Reports are based on information collected through Amnesty activists as well as from other sources such as media reports

The Cingranelli & Richards Human Rights Database (CIRI - http://www.humanrightsdata.com) contains standards-based quantitative information on government respect for 13 internationally recognized human rights for 192 countries. It is designed for use by scholars and students who seek to test theories about the causes and consequences of human rights violations, as well as policy makers and analysts who seek to estimate the human rights effects of a wide variety of institutional changes and public policies including democratization, economic aid, military aid, structural adjustment, and humanitarian intervention.

The **Political terror Scale** (PTS - http://www.unca.edu/politicalscience/faculty-staff/gibney_docs/pts.xls) was originally codified by Prof. Marc Gibney of the University of North Carolina. The Index captures the reality of domestic political terror, capturing issues such as: imprisonments, tortures, rule of law, security, disappearances

In the table below we list the variables included in each of the governance indicators. We use data from the 1996, 1998, 2000, 2002 and 2004 Reports

Table A26: State Department / Amnesty International (192 developed and	d develop	ing c	ountri	es)	
	20	04 200	2 2000	1998	1996
Voice and Accountability					
Restrictions on domestic and foreign travel		X	Χ	Χ	Χ
Freedom of political participation	>	X	Χ	Χ	Χ
Imprisonments because of ethnicity, race, or political, religious beliefs?	\	X	Χ		
Government censorship		X	X	Χ	Χ
Political Stability					
Frequency of political killings	>	(X	Χ	Χ	Χ
Frequency of disappearances)	X	Χ	Χ	Χ
Frequency of tortures)		Χ	Χ	Χ
Political terror scale (PTS)				Χ	Χ
Government Effectiveness NA					••
Regulatory Quality NA					
Rule of Law			.,	.,	.,
Independence of judiciary		X	Х	Χ	Х
Control of Corruption					
NA					
Country coverage	19	2 15	9 159	159	159

TABLE A27: United Nations Economic Commissions for Africa (AGI)

A27: Africa Governance Indicators

http://www.uneca.org/

Established in 1958, the Economic Commission for Africa is one of five regional commissions under the administrative direction of United Nations headquarters. As the regional arm of the UN in Africa, it is mandated to support the economic and social development of its 53 member States, foster regional integration, and promote international cooperation for Africa's development.

The Africa Governance Indicators is the result of a study initiated by the United Nations Economic Commission for Africa, as part of the first major continent-wide study to measure and monitor progress of governance in Africa, published in "Progress towards Good Governance in Africa."

The objective of the research was to ascertain current public perceptions of the state of governance in the region. By placing strong emphasis on local and national surveys, and incorporating the views of a wide cross-section of society, it aimed not only to take a snapshot of the perception of governance in various countries, but also to highlight key capacity deficits and encourage the sharing of intraregional experience and knowledge on the challenges to good governance

In the table below we list the variables included in each of the governance indicators. We use data from 2004.

	tors (23 African co	2002	2000	1998	1996
Voice and Accountability		2002	2000	1000	1000
Political representation	II x				
Political system	II X				
Power distribution	II x				
Political party freedom / security	II x				
Electoral process Independence / credibility	II x				
Institutional effectiveness / accountability	II x				
Legislature's effectiveness	II x				
Human rights	II x	••			
Media Independence	II x				
Satisfaction with democracy					
Trust in Government	II x				
Trust in Parliament	II x				
Tract in Familianion	^	••		••	••
Political Stability					
NA					
	"	••	••	••	••
Government Effectiveness					
Executive's effectiveness	ll x				
Effectiveness in state structure	II x			••	
Government services efficiency	II x	••	••		••
Decentralization of structures	II x	••			
Economic management		••	••	••	
200101110 management		••	••	••	
Regulatory Quality					
Investment policies attractiveness	ll x				
Pro-investment tax policies	\prod_{x}^{n}				
Tax system efficiency/corruption	II x	••	••		
Tax by stom smolenby/corruption		••	••	••	
Rule of Law					
Judiciary's effectiveness	II x				
Respect for rule of law	II x				
Law enforcement organs	II x				
Trust in Judiciary	II x				••
Trust in Police	II x	••	••	••	
Trust III T UIICE	^	••			••
Control of Corruption					
Civil service transparency / accountability	ll x				
Corruption control	X	••	••	••	
Contaption Control		••		••	••

TABLE A28: USAID / Vanderbilt University (USD)

A28: USAID / Vanderbilt University's Democracy Surveys

http://www.millennium-int.com/newdsd/

The Latin America Public Opinion Project (LAPOP) conducted Democracy Surveys in 7 Central American countries and Mexico, directed by Prof. Mitchell Seligson of Vanderbilt University and with the financial assistance of USAID. The surveys were commissioned as part of a larger effort to promote and divulge democracy and prosperity and bolster confidence in democratic institutions in the region.

In the table below we list the variables included in each of the governance indicators. We use data from the 2004 surveys.

Table A28: USAID / Vanderbilt Univ	2004			1998	1996
Voice and Accountability		2002	2000	1000	1000
Trust in legislation	ll x				
Satisfaction with democracy	II x		••	••	••
Satisfaction with democracy	^		••	••	••
Political Stability					
NA					
Government Effectiveness					
NA	"		••		••
Regulatory Quality					
NA					
Rule of Law					
Trust in supreme court	X				
Victim of crime	l x				
Trust in tribunals	l x				
Trust in justice	l x				
Trust in police	X				
Control of Corruption					
Frequency of corruption	X				

TABLE A29: The World Business Environment Survey (WBS, WDR)

A29. The World Business Environment Survey (WBS)

http://www.ifc.org/ifcext/economics.nsf/Content/IC-WBESConditions

The World Business Environment Survey (WBS) is a survey conducted by the World Bank in collaboration with several other institutions. It is designed to provide information on the business environment facing private enterprises. It was conducted during 1999 and 2000 in 81 countries. The respondents were managers of firms in at least 100 firms per country. This survey asks several questions similar to those in the 1997 World Development Report survey that we use in constructing the 1998 version of the indicators. We therefore treat the WBS as the continuation of this source.

The component of the WBS covering transition economies is referred to as the Business Environment and Enterprise Performance Survey (BPS), described in Table A2. The questionnaire for this region contains more detailed questions about corruption issues, including questions on "state capture" referring to the manipulation of the institutions of the state for private gain on a grand scale. In addition, a new round of BPS was conducted in 2002. For these reasons, we treat the BPS as a separate source.

In the table below we list the variables included in each of the governance indicators. We use data from the WBES survey in 2000 and the WDR Survey in 1997.

Table A29: World Business Enterprise Survey (80 developed and dev	_		2000	1902	1996
Voice and Accountability	2004	2002	2000	1990	1990
Business have voice to express			Χ	Χ	
Business are informed			Χ	Χ	
Political Stability					
Political instability			Χ		
Likelihood of uncostitutional				Χ	
Threat of terrorism				Χ	
Government Effectiveness					
Quality of customs			Χ	X	
Quality of public works (roads,)			Χ	Χ	
Quality of power company			Χ		
Quality of Water			Χ		
Quality of public health			Χ	Χ	
Quality of public education			X		
Quality of central government			X		
Quality of central bank			X	 V	••
Efficiency of government in delivering services Likelihood that when a government official acts against the rules, one can go			Х	Х	••
to another official or a superior and get correct treatment				Χ	
Management time spent with bureaucrats				Х	
The efficiency of mail delivery	1			X	
Predictability of changes in rules and laws				Χ	
Credibility of government's commitment to policies				Χ	
Regulatory Quality					
Regulations on starting new businesses			Х	Х	
Price controls	l		X	X	
Regulations on foreign trade			Χ	X	
Foreign currency regulations			Χ	Χ	
General uncertainty about regulations			Χ	Χ	
Rule of Law					
Corruption of bankers			Χ		
Quality of the Police			Χ		
Organized crime			X		
Street crime			X	Х	
Courts fair & impartial Courts-affordable		••	X	••	
Courts-consistent/predictable		••	X	 X	
Court's enforceability			X X		
Confidence in judicial system today in insuring property rights			X	 X	
General constraint—functioning of the judiciary	1		X		
Obstacles to competition-violation of patents			Χ		
Quality of courts			Χ		
Control of Corruption					
Frequency of additional payments			Х	Χ	
Dishonest courts			Χ		
Corruption as obstacle to business			Χ	Χ	
Bribery (% of Gross revenues)			Χ		
Country coverage			80	74	

TABLE A30: World Economic Forum (GCS, GCSA)

A30. World Economic Forum (GCS)

http://www.weforum.org

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.

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 the Global Competitiveness Survey, which 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 issues in eight broad areas: 1) Openness, 2) Government, 3) Finance, 4) Infrastructure, 5) Technology, 6) Management, 7) Labor, and 8) Institutions.

In 1998 and 2002 the WEF sponsored separate surveys of countries in Africa and Middle East, respectively. We incorporated them in the Global Surveys, resulting in an increase of country coverage in 1998 and 2002 of 20 and 8 countries, respectively.

In the table below we list the variables included in each of the governance indicators. In this paper, we use data from the 1996, 1998, 2000, 2002 and 2004 Surveys Additional questions from the 1998 African Competitiveness Report (covering 23 African countries overall) have also been listed (GCSA).

1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	2004	2002	2000	1998	19
Voice and Accountability Firms are usually informed clearly and transparently by the Government on changes in policies affecting their industry	X	Х			
Newspapers can publish stories of their choosing without fear of censorship or retaliation	Х	Х			
When deciding upon policies and contracts, Government officials favor well-connected firms	Х	Х			
Extent of direct influence of legal contributions to political parties on specific public policy outcomes	x	Х			
Effectiveness of national Parliament/Congress as a law making and oversight institution	Х	Χ			
Political Stability The threat of terrorism in the country imposes significant costs on business	X	Х			
lew Governments honor commitments of previous Governments			Χ	Χ	
ikelihood of dramatic changes in institutions			Χ	Χ	
he highest power is always peacefully transferred				Χ	
Government coups or political instability as an obstacle to development (GCSA)				Χ	
ribal conflict as an obstacle for business development (GCSA)				Χ	
Sovernment Effectiveness					
Competence of public sector personnel	Х	Χ	Χ	Χ	
Quality of general infrastructure	Х	Χ			
Quality of public schools	Х	Χ			
ime spent by senior management dealing with government officials	Х	Χ	Χ	Χ	
Public Service vulnerability to political pressure			Χ	Χ	
Vasteful government expenditure	Х		Χ	Χ	
Strength and expertise of the civil service to avoid drastic interruptions in government services in mes of political instability (GCSA)				Х	
Sovernment economic policies are independent of pressure from special interest groups.	l		Х		

Table A30: World Economic Forum (cont.)	0007	0000	0000	4000	1000
Regulatory Quality	2004	2002	2000	1998	1996
Administrative regulations are burdensome	Х	Χ	Χ	Χ	Χ
Tax system is distortionary	Х	Χ	Χ	Χ	Χ
Import barriers as obstacle to growth	Х	Χ		Χ	Χ
Competition in local market is limited	Х	Χ		Χ	
It is easy to start company	Х	Χ		Χ	
Anti monopoly policy is lax and ineffective	Х	Χ		Χ	Х
Clusters are frequent	Х	Χ			
Environmental regulations hurt competitiveness	Х	Х			
Cost of tariffs imposed on business	Х	X		Х	X
Government subsidies keep uncompetitive industries alive artificially		Χ			X
Complexity of Tax System	X				
Domestic banks are protected from foreign competition				X	
Barriers to entry in banking sector are very high				X	
Interest rates are heavily regulated				X	••
Private sector participation in infrastructure projects is not permitted				X	
Costs of uncertain rules, laws, or government policies (GCSA)				X	
Tranfer costs associated with exporting capital as an obstacle to business (GCSA)				X	
General uncertainty on costs of regulations as an obstacle to business (GCSA)				X	
Openness of public sector contracts to foreign investors (GCSA)				X X	
Policies for dividend remittances as obstacles to development (GCSA)					••
Dominance of state owned or state controlled enterpriese (GCSA)				X X	••
State interference in private business (GCSA)				X	
Regulatory discretionality (GCSA) Price controls as an obstacle to business development (GCSA)				X	
Regulations on foreign trade as an obstacle to business development (GCSA)			••	X	
Foreign currency regulations as an obstacle to business development (GCSA)				X	
Rule of Law					
Common crime imposes costs on business	Х	Х			
Organized crime imposes costs on business	X	X	X	X	χ
Money laundering through banks is pervasive	Ιχ̈́	X			
Money laundering through non-banks is pervasive	Ιχ	X			
Quality of Police	X	X	X	X	Х
Insider trading is pervasive	X	Χ			Х
The judiciary is independent from political influences of government, citizens, or firms	Х	Χ	Χ	Χ	
Legal framework to challenge the legality of government actions is inefficient	X	Χ	Χ	Χ	Х
Intellectual Property protection is weak	Ιχ	X		X	Х
Protection of financial assets is weak	Ιχ	X	X		
Illegal donation to parties are frequent	Ιχ	X		••	
Private businesses are morel likely to settle disputes outside courts.			X		
Compliance with court rulings and /or arbitration awards (GCSA)	"			Χ	
Legal system effectiveness at enforcing commercial contracts (GCSA)	l ::			X	
Citizens' willingness to accept legal means to adjudicate disputes rather than depending					
on physical force or illegal means (GCSA)				Χ	
Percentage of firms which are unofficial or unregistered / Tax evasion	Х	Χ	Χ	Χ	Χ
Control of Corruption		V			
Public trust in financial honesty of politicians	X	X		••	
Extent to which legal contributions to political parties are misused by politicians	X	X		••	
Diversion of public funds due to corruption is common	X	X			
Frequency of bribery in the economy	Х	Х		X	••
Frequent for firms to make extra payments connected to: public utilities, tax payments,		V	~	V	v
loan applications, awarding of public contracts, influencing laws, policies regulations,	X	Х	Х	Х	Х
decrees, getting favourable judicial decisions					
Percentage Bribes paid as share of revenues	X				
Percentage bribe paid for procurement contracts	Х				
Extent to which firms' illegal payments to influence government policies impose costs on other firms	Х	Χ			
Extent to which influence of powerful firms with political ties impose costs on other firms	Х	Х			
Country Coverage:	104	88	90	71	FO
Country Coverage:	104	00	80	74	58

TABLE A31: World Markets Online (WMO)

A31: World Markets Online

http://www.worldmarketsonline.com

World Markets Online (WMO) is an online subscription service from the World Markets Research Center updated daily which provides analysis of the conditions and risks for businesses worldwide. Established in 1996, the World Markets Research Centre is based in London and employs over 190 permanent staff.

World Markets Online has developed a risk rating system to enable its clients to compare and contrast the investment climate in over 200 countries around the world. For WMO the principal quality their risk measures endeavor to measure is stability, which they believe businesses need most of all to be able to make secure investments and plan ahead. In addition to stability, WMO believes that businesses also need the right conditions in place; governments must ensure the right policies and safeguards to allow businesses to operate effectively. A country with a high risk rating by WMO is a country where businesses face continual threats to their operations, either from direct physical intervention, or because of the poor conditions and stability in the country concerned. The system rates the quality of conditions and level of stability encountered by investors in each country in terms of political, economic, legal, tax, operational and security environment.

Drawing on a worldwide network of information gatherers and analysts, World Markets Research Centre generates a comprehensive range of in-depth country, sector and market services. The process by which the risks are assessed consists firstly of WMO analysts' own experience of the country's conditions. Daily stories highlight countries' changing conditions and constantly inform the risk rating levels. In addition to the in-house analysts' own consensus, World Markets Online also draws upon the expertise and impressions of those working in the field through a wide network of stringers and informal contacts which allows them to access information only available locally as well as to case studies of individual investor's experience. Regular meetings of all the analysts across the regional desks ensure that their ratings are fully comparable globally, and that the factors used for assessment are consistent.

In the table below we list the variables included in each of the governance indicators. In this paper, we use the disaggregated components of the 2002 and 2004 country risk ratings, prepared for us by a panel of WMO experts.

Table A31: World Markets Online (202 developed and developing countries)							
Voice and Accountability	2001	2002	2000	1000	100		
Institutional permanence An assessment of how mature and well-established the political system is. It is also an assessment of how far political opposition operates within the system or attempts to undermine it from outside. A country with high institutional permanence would unquestionably survive the death or removal from power of the current leadership. A mature political system will conventionally have a clearly established relationship between the executive, legislative and judicial branches of government.	X	Х					
Representativeness How well the population and organised interests can make their voices heard in the political system. Provided representation is handled fairly and effectively, it will ensure greater stability and better designed policies.	X	Х					
Political Stability							
Civil unrest How widespread political unrest is, and how great a threat it poses to investors. Demonstrations in themselves may not be cause for concern, but they will cause major disruption if they escalate into severe violence. At the extreme, this factor would amount to civil war.	Х	X					
Terrorism Whether the country suffers from a sustained terrorist threat, and from how many sources. The degree of localisation of the threat is assessed, and whether the active groups are likely to target or affect businesses.	Х	X					
Government Effectiveness Bureaucracy: An assessment of the quality of the country's bureaucracy. The better the bureaucracy the quicker decisions are made and the more easily foreign investors can go about their business.	x	X					
Policy consistency and forward planning How confident businesses can be of the continuity of economic policy stance - whether a change of government will entail major policy disruption, and whether the current government has pursued a coherent strategy. This factor also looks at the extent to which policy-making is far-sighted, or conversely aimed at short-term economic advantage.	X	Х					
Regulatory Quality							
Tax Effectiveness How efficient the country's tax collection system is. The rules may be clear and transparent, but whether they are enforced consistently. This factor looks at the relative effectiveness too of corporate and personal, indirect and direct taxation.	x	X					
Legislation An assessment of whether the necessary business laws are in place, and whether there any outstanding gaps. This includes the extent to which the country's legislation is compatible with, and respected by, other countries' legal systems.	x	X					
Rule of Law Judicial Independence An assessment of how far the state and other outside actors can influence and distort the legal system. This will determine the level of legal impartiality investors can expect.	x	Х					
Crime How much of a threat businesses face from crime such as kidnapping, extortion, street violence, burglary and so on. These problems can cause major inconvenience for foreign investors and require them to take expensive security precautions.	X	Х					
Control of Corruption Corruption: An assessment of the intrusiveness of the country's bureaucracy. The amount of red tape likely to countered is assessed, as is the likelihood of encountering corrupt officials and other groups.	X	Х					
	1						

Appendix B: Components of Aggregate Governance Indicators, 2004

Table B1: Voice and Accountability

Code Table Concept Measured

Representative Sources

CUD A7 To what extent does the state and/or its allied groups engage in repression of its citizens?

In carrying out internal security tasks, to what extent does the state rely on tactics commonly considered illegitimate in the international community?

EIU A9 Orderly transfers

Vested interests

Accountability of Public Officials

Human Rights

Freedom of association

FRH A11 Civil liberties: Freedom of speech, of assembly and demonstration, of religion, equal opportunity, of excessive governmental intervention

Political Rights: free and fair elections, representative legislative, free vote, political parties, no dominant group, respect for minorities

Freedom of the Press

GCS A30 Firms are usually informed clearly and transparently by the Government on changes in policies affecting their industry

Newspapers can publish stories of their choosing without fear of censorship or retaliation

When deciding upon policies and contracts, Government officials favor well-connected firms

Extent of direct influence of legal contributions to political parties on specific public policy outcomes

Effectiveness of national Parliament/Congress as a law making and oversight institution

HUM A26 Travel: domestic and foreign travel restrictions

Freedom of political participation

Imprisonments: Are there any imprisoned people because of their ethnicity, race, or their political, religious beliefs?

Government censorship

PRS A23 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.

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.

RSF A25 Press Freedom Index

WMO A31 Institutional permanence: An assessment of how mature and well-established the political system is. It is also an assessment of how far political opposition operates within the system or attempts to undermine it from outside. A country with high institutional permanence would unquestionably survive the death or removal from power of the current leadership. A mature political system will conventionally have a clearly established relationship between the executive, legislative and judicial branches of government.

Representativeness: How well the population and organized interests can make their voices heard in the political system. Provided representation is handled fairly and effectively, it will ensure greater stability and better designed policies.

Table B1: Voice and Accountability (cont.)

Code Table Concept Measured

Non-representative Sources

AFR A2 How much do you trust the parliament?

Overall, how satisfied are you with the way democracy works in your country?

AGI A27 Political representation

Political system

Power distribution

Political party freedom / security Electoral process Independ./ credibility Institutional effect./accountability

Legislature's effectiveness

Human rights

CSO/media Independence

BTI A4 Stateness

Political Participation Institutional Stability

Political and Social Integration

CCR A11 Civil Liberties

Accountability and public voice

FHT A11 Political Process: Deals with elections, referenda, party configuration, conditions for political competition, and popular

participation in elections.

Civil Society: Highlights the degree to which volunteerism, trade unionism, and professional associations exist, and whether civic organizations are influential

Independent Media: Press freedom, public access to a variety of information sources, and the independence of those sources from undue government or other influences.

GAL A13 Fairness of elections

Human Rights

LAI A12 Budget Transparency

LOB A20 Satisfaction with democracy

Trust in Parliament

MSI A19 Media Sustainability Index

USD A27 Trust in legislation

Satisfaction with democracy

WCY A18 Transparency of Government policy

Table B2: Political Stability

Code Table

Concept Measured

Representative Sources

CUD A7 Assess the degree to which the decline or collapse of central political authority posed a threat to political stability in this country.

Assess the degree to which political protest or rebellion posed a threat to political stability in this country.

Assess the degree to which ethno-cultural and/or religious conflict posed a threat to political stability in this country.

DRI A15 Military Coup Risk: A military coup d'etat (or a series of such events) that reduces the GDP growth rate by 2% during any 12-month period.

Major Insurgency/Rebellion: An increase in scope or intensity of one or more insurgencies/rebellions that reduces the GDP growth rate by 3% during any 12-month period.

Political Terrorism: An increase in scope or intensity of terrorism that reduces the GDP growth rate by 1% during any 12-month period.

Political Assassination: A political assassination (or a series of such events) that reduces the GDP growth rate by 1% during any 12-month period.

Civil War: An increase in scope or intensity of one or more civil wars that reduces the GDP growth rate by 4% during any 12-month period.

Major Urban Riot: An increase in scope, intensity, or frequency of rioting that reduces the GDP growth rate by 1% during any 12-month period.

EIU A9 Armed conflict

Violent demonstrations

Social Unrest

International tensions

GCS A30 Country terrorist threat: Does the threat of terrorism in the country impose significant costs on firms?

HUM A26 Frequency of political killings

Frequency of disappearances

Frequency of torture

IJT A17 Security Risk Rating

MIG A21 Extremism. The term "extremism" covers the threat posed by any individuals or organisations who hold a narrow set of fanatical beliefs. Extremists are likely to believe that any and all means are justified to eradicate the target of hostility, and are not afraid to destroy themselves in the process. This ideological aspect of extremism makes it highly unpredictable, and its close association with violence makes it highly dangerous. The extent to which extremism should be judged a threat to a particular business in a particular market can be assessed along the following lines: integration issues; religious tensions; pressure groups; terrorist activity; xenophobia.

PRS A23 Internal Conflict: Assesses political violence and its influence on governance.

External conflict: The external conflict measure is an assessment both of the risk to the incumbent government and to inward investment.

Ethnic tensions: This component measures the degree of tension within a country attributable to racial, nationality, or language divisions.

PTS A26 Political Terror Scale

WMO A31 *Civil unrest* How widespread political unrest is, and how great a threat it poses to investors. Demonstrations in themselves may not be cause for concern, but they will cause major disruption if they escalate into severe violence. At the extreme, this factor would amount to civil war.

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

Non-representative Sources

BRI A6 Fractionalization of political spectrum and the power of these factions.

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

Restrictive (coercive) measures required to retain power.

Organization and strength of forces for a radical government.

Societal conflict involving demonstrations, strikes, and street violence.

Instability as perceived by non-constitutional changes, assassinations, and guerrilla wars.

GAL A13 Terrorism/Crime

WCY A18 Risk of political instability

Table B3: Government Effectiveness

Code Table

Concept Measured

Representative Sources

CUD A7

Rate the administrative and technical skills of the country's civil service (occupying middle and higher management roles). Rate the efficiency of the country's national bureaucracies overall.

Rate the efficiency of the country's local-level government bureaucracies overall.

Rate the effectiveness of coordination between the central government and local-level government organizations.

Rate the state's ability to formulate and implement national policy initiatives.

Rate the state's effectiveness at collecting taxes or other forms of government revenue.

Does the central government produce a national budget in a timely manner?

Do local governments produce budgets in a timely manner?

Rate the state's ability to monitor socioeconomic trends, activities, and conditions within its borders

Rate the state's ability to create, deliver, and maintain vital national infrastructure.

Rate the state's ability to respond effectively to domestic economic problems.

Rate the state's ability to respond effectively to natural disasters.

DRI A15 Government Instability: An increase in government personnel turnover rate at senior levels that reduces the GDP growth rate by 2% during any 12-month period.

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

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

EIU A9 Quality of bureaucracy

Excessive bureaucracy / red tape

GCS A30 Public Spending Composition

Quality of general infrastructure

Quality of public schools

Time spent by senior management dealing with government officials

MIG A21 Bureaucracy. The critical feature of bureaucracy is that it raises issues more complicated than "red tape" alone.

Bureaucracy can be actively and deliberately obstructive to foreign investors – in response to political pressures, vested interests and special interest lobbies. Some features that determine the extent that bureaucracy could affect business operations are the accountability of public officials; politicisation of bureaucratic departments; regulatory credibility and enforceability; size of the public sector and transparency of decision-making.

PRS A23 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.

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.

WMO A31 Policy consistency and forward planning: How confident businesses can be of the continuity of economic policy stance - whether a change of government will entail major policy disruption, and whether the current government has pursued a coherent strategy. This factor also looks at the extent to which policy-making is far-sighted, or conversely aimed at short-term economic (and electoral) advantage.

Bureaucracy: An assessment of the quality of the country's bureaucracy. The better the bureaucracy the quicker decisions are made and the more easily foreign investors can go about their business.

Table B3: Government Effectiveness (cont.)

Code Table Concept Measured

Non-representative Sources

ADB A1 Management of public debt

Policies to improve efficiency of public sector

Revenue Mobilization

Budget Management

AFR A2 What proportion of the country's problems do you think the government can solve?

Based on your experiences, how easy or difficult is it to obtain household services (like piped water, electricity or telephone)?

Based on your experiences, how easy or difficult is it to obtain an identity document (such as birth certificate, driver's license or passport)?

AGI A27 Executive's effectiveness

Effectiveness in state structure

Government services efficiency

Decentralization of structures

Economic management

ASD A3 Civil service

Revenue Mobilization and Budget Management

Management and Efficiency of Public Expenditures

BPS A5 How problematic are telecommunications for the growth of your business

How problematic is electricity for the growth of your business.

How problematic is transportation for the growth of your business.

BRI A6 Bureaucratic delays

BTI A4 Consensus Building

Governance Capability

Effective Use of Resources

Reliable Pursuit of Goals

Welfare Regime

CPIA A8 Management of external debt

Management of development programs

Quality public Administration

Revenue Mobilization

Budget Management

EGV A14 Global E-government

FHT A11 Government and Administration: Government decentralization, independent and responsibilities or local and regional

governments, and legislative and executive transparency are discussed.

LBO A20 Trust in Government

WCY A18 Government economic policies do not adapt quickly to changes in the economy

The public service is not independent from political interference

Government decisions are not effectively implemented

Bureaucracy hinders business activity

The distribution infrastructure of goods and services is generally inefficient

Policy direction is not consistent

Table B4: Regulatory Quality

Code Table

Concept Measured

Representative Sources

DRI A15 Regulations -- Exports: A 2% reduction in export volume as a result of a worsening in export regulations or restrictions (such as export limits) during any 12-month period, with respect to the level at the time of the assessment.

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

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

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

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

EIU A9 Unfair competitive practices

Price controls

Discriminatory tariffs

Excessive protections

GCS A30 Administrative regulations are burdensome

Tax system is distortionary

Import barriers as obstacle to growth

Competition in local market is limited

It is easy to start company

Anti monopoly policy is lax and ineffective

Clusters are frequent

Environmental regulations hurt competitiveness

Cost of tariffs imposed on business

Government subsidies keep uncompetitive industries alive artificially

HER A16 Regulation

Government Intervention

Wage/Prices

Trade

Foreign investment

Banking

MIG A21

Unfair Competition. When entering a non-domestic market the corporate may find that established players and competitors often resort to unethical and illegal means to create obstructions that will cause the enterprise to underperform. The rules of doing business are different in different markets, and so are the routes that companies choose towards success. For any company, the most important factor in assessing the risk of unfair competition is how much knowledge it has of its local and international competitors. Pertinent issues to consider: competitor behaviour; competitor links; information security; political involvement in the sector; transparency.

Unfair Trade. In some parts of the world, companies and governments' interests are so closely intertwined that they are almost indistinguishable. The principals of those companies, some of whom are government ministers, use their position to trade unfairly and put obstacles in the way of foreign business to ensure that they retain the dominant position within the market. Occasionally, activities border on the illegal when government legislation is deliberately amended to favour local business, and/or enforcement bodies are deliberately obstructive to ensure that the local business succeeds at the expense of the foreign investor.

- PRS A23 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.
- WMO A31 Tax Effectiveness: How efficient the country's tax collection system is. The rules may be clear and transparent, but whether they are enforced consistently. This factor looks at the relative effectiveness too of corporate and personal, indirect and direct taxation.

Legislation: An assessment of whether the necessary business laws are in place, and whether there any outstanding gaps. This includes the extent to which the country's legislation is compatible with, and respected by, other countries' legal systems.

Table B4: Regulatory Quality (cont.)

Code Table Concept Measured

Non-representative Sources

ADB A1 Trade policy

Competitive environment

Labor Market Policies

AGI A27 Investment policies attractiveness

Pro-investment tax policies

Tax system efficiency/corruption

ASD A3 Trade Policy and Forex Regime

Factor and Product Markets and Prices

Enabling Environment for Private Sector Development

BPS A5 Information on the laws and regulations is easy to obtain

Interpretations of the laws and regulations are consistent and predictable

Unpredictability of changes of regulations

How problematic are labor regulations for the growth of your business.

How problematic are tax regulations for the growth of your business.

How problematic are custom and trade regulations for the growth of your business.

BTI A4 Competition

Price Stability

CPIA A8 Competitive environment

Factor and products markets

Trade policy

EBRD A10 Price liberalization

Trade & foreign exchange system

Competition policy

WCY A18 Access to capital markets (foreign and domestic) is easily available

Ease of Doing Business

Banking regulation does not hinder competitiveness

Competition legislation in your country does not prevent unfair competition

Customs' authorities do not facilitate the efficient transit of goods

Financial institutions' transparency is not widely developed in your country

Easy to start company

Foreign investors are free to acquire control in domestic companies

Legal regulation of financial institutions is inadequate for financial stability

Price controls affect pricing of products in most industries

Public sector contracts are sufficiently open to foreign bidders

Real corporate taxes are non distortionary

Real personal taxes are non distortionary

The exchange rate policy of your country hinders the competitiveness of enterprises

The legal framework is detrimental to your country's competitiveness

Protectionism in your country negatively affects the conduct of business in your country

Labor regulations hinder business activities

New Legislation restricts competitiveness

Subsidies impair economic development

Table B5: Rule of Law

Code Table Concept Measured

Representative Sources

CUD A7 For the most part, is the state seen as legitimately representing its citizens?

Rate the state's adherence to the rule of law, considering the country as a whole.

DRI A15 Losses and Costs of Crime: A 1-point increase on a scale from "0" to "10" in crime during any 12-month period.

Kidnapping of Foreigners: An increase in scope, intensity, or frequency of kidnapping of foreigners that reduces the GDP growth rate by 1% during any 12-month period.

Enforceability of Government Contracts: A 1 point decline on a scale from "0" to "10" in the enforceability of contracts during any 12-month period.

Enforceability of Private Contracts: A 1-point decline on a scale from "0" to "10" in the legal enforceability of contracts during any 12-month period.

EIU A9 Violent crime

Organized crime

Fairness of judicial process

Enforceability of contracts

Speediness of judicial process

Confiscation/expropriation

GCS A30 Common crime imposes costs on business

Organized crime imposes costs on business

Money laundering through banks is pervasive

Money laundering through non-banks is pervasive

Quality of Police

Insider trading is pervasive

The judiciary is independent from political influences of members of government, citizens or firms

Legal framework to challenge the legality of government actions is inefficient

Intellectual Property protection is weak

Protection of financial assets is weak

Illegal donation to parties are frequent

Percentage of firms which are unofficial or unregistered

HER A16 Black market

Property Rights

HUM A26 Independence of Judiciary

MIG A2

Organised Crime. Crime, especially organised crime, is ultimately about profit. As capitalism and free market economic principles have spread around the world, the rule of law has often failed to keep pace. Existing organised crime groups simply seized the opportunity to fill that gap, and were swiftly followed by a flood of operators that have been kept to seize on the capitalist profit motive while dispensing with scruples. The most dangerous aspect of organised crime for legitimate businesses is that it is often indistinguishable, to the naked eye, from legitimate business. The proceeds of organised crime are recycled into legitimate companies through investments.

Legal Safeguards. The performance of an enterprise in terms of the timeframe for returns and the rate of return itself, may be hostage to legal obstacles or the absence of sufficient recourse to the law in a non-domestic market. The challenges posed by an absence of legal safeguards do not always arise because there simply is not enough of a legislative framework by which to interpret situations. Frequently, the problem lies not with the legal framework itself, but with the inability for that framework to be used in an impartial and reliable fashion, if indeed it is usable at all.

- PRS A23 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 (assessed separately).
- **QLM** A6 Direct Financial Fraud, Money Laundering and Organized Crime

WMO A31 *Judicial Independence* An assessment of how far the state and other outside actors can influence and distort the legal system. This will determine the level of legal impartiality investors can expect.

Crime How much of a threat businesses face from crime such as kidnapping, extortion, street violence, burglary and so on. These problems can cause major inconvenience for foreign investors and require them to take expensive security precautions.

Table B5: Rule of Law (cont.)

Code Table Concept Measured

Non-representative Sources

ADB A1 Property Rights

AFR A2 Over the past year, how often have you or anyone in your family feared crime in your own home?

Over the past year, how often have you or anyone in your family had something stolen from your house?

Over the past year, how often have you or anyone in your family been physically attacked?

How much do you trust the courts of law?

How much do you trust the police?

Based on your experiences, how easy or difficult is it to obtain help from the police when you need it?

AGI A27 Judiciary's effectiveness

Respect for rule of law

Law enforcement organs

ASD A3 Rule of Law

BPS A5 Fairness of the court system

Affordability of the court system

Enforceability of court decisions

Honesty of courts

Quickness of court decisions

Property right protection

How problematic is organized crime for the growth of your business.

How problematic is judiciary for the growth of your business.

How problematic is street crime for the growth of your business.

BRI A6 Enforceability of contracts

I A4 Rule of Law

Private Property

CCR A11 Rule of Law

CPIA A8 Property rights

FHT A11 Rule of Law: Considers judicial/constitutional matters as well as the legal and de facto status of ethnic minorities.

GAL A13 Trust in the Legal System

LBO A20 Trust in Judiciary

Trust in Police

Victim of crime

USD A28 Trust in Judiciary

Trust in Police

Victim of crime

Trust in supreme court

Trust in tribunals

WCY A18 Tax evasion is a common practice in your country

Justice is not fairly administered in society

Personal security and private property are not adequately protected

Parallel economy impairs economic development in your country

Insider trading is common in the stock market

Patent and copyright protection is not adequately enforced in your country

Table B6: Control of Corruption

Code Table Concept Measured

Representative Sources

CUD A7 Rate the severity of overall corruption within the state

To what extent do the country's primary political decision makers engage in patterns of nepotism, cronyism and patronage?

To what extent do the country's civil service engage in patterns of nepotism, cronyism and patronage?

To what extent do patterns of nepotism, cronyism and patronage undermine the state's ability to exercise the basic functions of government effectively?

To what extent do patterns of nepotism, cronyism and patronage distort broad patterns of economic development?

DRI A15 Risk Event Outcome non-price: Losses and Costs of Corruption: A 1-point increase on a scale from "0" to "10" in corruption during any 12-month period.

EIU A9 Corruption

GCS A30 Public trust in financial honesty of politicians

Diversion of public funds due to corruption is common

Frequent for firms to make extra payments connected to: import/export permits

Frequent for firms to make extra payments connected to: public utilities

Frequent for firms to make extra payments connected to tax payments

Frequent for firms to make extra payments connected to: loan applications

Frequent for firms to make extra payments connected to: awarding of public contracts

Frequent for firms to make extra payments connected to: influencing laws, regulations, decrees

Frequent for firms to make extra payments connected to: getting favorable judicial decisions

Extent to which powerful firms' political ties impose costs on other firms

Extent to which firms' illegal payments to influence government policies impose costs on other firms

MIG A21 Corruption. There is an immense variety of activities that may be construed as corrupt. Bribery is the most obvious.

However, what is and is not a bribe is a matter of presentation and perception in much the same way as "corruption" itself.

Some of the issues that executives should consider include: accounting standards; anti-corruption policy credibility and enforceability; cronyism, nepotism and vested interests; cultural differences; judicial independence; transparency of decision-making.

PRS A23 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 inherently instability in the political system.

QLM A6 Indirect Diversion of Funds

WMO A31 *Corruption*: This index assesses the intrusiveness of the country's bureaucracy. The amount of red tape likely to countered is assessed, as is the likelihood of encountering corrupt officials and other groups.

Non-representative Sources

ADB A1 Anti-corruption policies

Transparency / corruption

AFR A2 How well would you say the current government is handling the fight of corruption in the government?

How many elected leaders (parliamentarians or local councilors) do you think are involved in corruption?

How many judges and magistrates do you think are involved in corruption?

How many government officials do you think are involved in corruption?

How many border officials do you think are involved in corruption?

AGI A27 Civil service transparency / accountability

Corruption control

ASD A3 Anti-corruption

BPS A5 How common is for firms to have to pay irregular additional payments to get things done

On average, what percent of total annual sales do firms pay in unofficial payments to public officials

How often do firms make epayments to influence the content of new legislation

Extent to which firms' payments to public officials to affect legislation impose costs on other firms

How problematic is corruption for the growth of your business.

Table B6: Control of Corruption (cont.)

Code Table Concept Measured

Non-Representative Sources

BRI A6 Internal Causes of Political Risk: Mentality, including xenophobia, nationalism, corruption, nepotism, willingness to compromise, etc.

CCR A11 Transparency / corruption
CPIA A8 Transparency / corruption

FHT A11 Corruption

GAL A13 Frequency of corruption

Frequency of household bribery Extent of Grand corruption Extent of Petty corruption

LBO A20 Have you heard of acts of corruption?

It is likely to bribe policemen
It is likely to bribe judges
It is likely to bribe public servants

PRC A22 Corruption IndexUSD A28 Frequency of corruption

WCY A18 Bribing and corruption exist in the economy

APPENDIX C: Governance Indicators over Time

TABLE C1: Voice and Accountability

			2004	•		2002			2000			1998			1996	
Country	Code	Est.	S.E.	N.	Est.	S.E.	N.	Est.	S.E.	N.	Est.	S.E.	N.	Est.	S.E.	N.
AFGHANISTAN	AFG	-1.35	0.14	9	-1.31	0.23	5	-1.76	0.33	2	-1.68	0.30	2	-1.53	0.35	2
ALBANIA	ALB	0.03	0.11	9	-0.10	0.14	6	-0.05	0.16	6	-0.26	0.19	5	-0.35	0.21	4
ALGERIA	DZA	-0.91	0.15	9	-0.96	0.17	7	-1.31	0.22	5	-1.46	0.23	4	-1.17	0.21	4
AMERICAN SAMOA	ASM	0.44	0.52	1												
ANDORRA	ADO	1.23	0.20	3	1.41	0.29	2	1.39	0.38	1	1.44	0.35	1	1.29	0.40	1
ANGOLA	AGO	-1.02	0.15	8	-1.40	0.17	7	-1.37	0.22	5	-1.28	0.23	4	-1.42	0.21	4
ANGUILLA	AIA	0.74	0.52	1												
ANTIGUA AND BARBUDA	ATG	0.48	0.20	3	0.17	0.29	2	-0.02	0.38	1	0.05	0.35	1	0.19	0.40	1
ARGENTINA	ARG	0.49	0.14	13	0.23	0.15	12	0.44	0.21	8	0.29	0.22	6	0.60	0.20	6
ARMENIA	ARM	-0.66	0.11	9	-0.44	0.14	6	-0.30	0.16	6	-0.31	0.19	5	-0.57	0.23	3
ARUBA	ABW	0.64	0.52	1												
AUSTRALIA	AUS	1.40	0.16	10	1.50	0.17	9	1.61	0.22	6	1.50	0.23	5	1.73	0.21	5
AUSTRIA	AUT	1.25	0.16	9	1.32	0.17	9	1.21	0.22	6	1.27	0.23	6	1.43	0.21	5
AZERBAIJAN BAHAMAS	AZE BHS	-0.97 1.14	0.10 0.19	11 4	-0.87 1.18	0.12 0.25	9 3	-0.81 1.10	0.16 0.28	7 2	-0.95 1.07	0.18 0.29	6 2	-1.08 1.11	0.18 0.32	4 2
BAHRAIN	BHR	-0.73	0.19	9	-0.74	0.23	7	-1.17	0.20	5	-1.22	0.23	4	-0.94	0.32	4
BANGLADESH	BGD	-0.73	0.15	9	-0.74	0.10	8	-0.34	0.22	6	-0.17	0.23	4	-0.33	0.21	4
BARBADOS	BRB	1.17	0.10	3	1.39	0.29	2	1.21	0.38	1	1.44	0.25	1	1.23	0.40	1
BELARUS	BLR	-1.54	0.11	9	-1.40	0.13	8	-1.21	0.16	6	-0.98	0.19	5	-1.03	0.23	3
BELGIUM	BEL	1.35	0.16	8	1.44	0.18	8	1.19	0.22	6	1.32	0.23	5	1.48	0.21	5
BELIZE	BLZ	0.91	0.20	3	0.83	0.27	3	0.86	0.33	3	1.01	0.30	2	1.09	0.35	2
BENIN	BEN	0.30	0.16	7	0.03	0.23	5	0.44	0.31	3	0.61	0.29	3	0.75	0.35	2
BERMUDA	BMU	0.99	0.52	1	1.07	0.47	1									
BHUTAN	BTN	-1.18	0.19	4	-1.17	0.25	4	-1.63	0.33	2	-1.56	0.30	2	-1.37	0.35	2
BOLIVIA	BOL	-0.01	0.15	10	0.01	0.18	9	0.23	0.22	6	0.34	0.22	6	0.10	0.20	5
BOSNIA-HERZEGOVINA	BIH	-0.14	0.11	10	-0.29	0.14	8	-0.37	0.18	5	-1.11	0.21	3	-1.20	0.35	2
BOTSWANA	BWA	0.73	0.14	11	0.73	0.17	8	0.78	0.22	6	0.77	0.23	4	0.74	0.21	4
BRAZIL	BRA	0.34	0.14	13	0.35	0.15	12	0.53	0.22	7	0.59	0.22	7	0.23	0.20	6
BRUNEI	BRN	-1.11	0.19	4	-0.82	0.22	5	-1.07	0.26	3	-1.14	0.26	3	-0.97	0.30	3
BULGARIA	BGR	0.58	0.11	12	0.56	0.12	11	0.51	0.15	8	0.40	0.18	6	0.17	0.17	5
BURKINA FASO	BFA	-0.38	0.15	7	-0.27	0.22	5	-0.31	0.25	4	-0.24	0.26	3	-0.46	0.30	3
BURUNDI CAMBODIA	BDI KHM	-1.13 -0.89	0.18 0.16	5 6	-1.16 -0.56	0.25 0.25	4 4	-1.66 -0.35	0.31 0.33	3 3	-1.59	0.30	2 2	-1.28 -0.68	0.35 0.35	2 2
CAMBODIA	CMR	-1.18	0.15	8	-1.10	0.23	7	-0.33	0.33	6	-0.87 -0.77	0.30	5	-1.05	0.33	4
CANADA	CAN	1.38	0.15	10	1.50	0.17	10	1.27	0.22	8	1.30	0.23	6	1.44	0.21	5
CAPE VERDE	CPV	0.80	0.19	5	0.41	0.17	3	0.86	0.38	1	0.92	0.25	1	0.90	0.40	1
CAYMAN ISLANDS	CYM	0.76	0.52	1	1.51	0.47	1									
CENTRAL AFRICAN REPUBLI	C CAF	-1.20	0.18	5	-0.80	0.25	4	-0.52	0.33	2	0.06	0.30	2	-0.17	0.35	2
CHAD	TCD	-1.09	0.16	7	-0.95	0.25	4	-0.89	0.33	2	-0.83	0.29	3	-0.76	0.35	2
CHILE	CHL	1.09	0.14	12	1.07	0.15	11	0.56	0.21	8	0.65	0.22	6	0.93	0.20	6
CHINA	CHN	-1.54	0.15	10	-1.38	0.17	9	-1.37	0.22	7	-1.51	0.23	5	-1.29	0.21	5
COLOMBIA	COL	-0.47	0.14	12	-0.55	0.17	10	-0.53	0.21	8	-0.30	0.22	7	-0.07	0.20	6
COMOROS	COM	-0.14	0.19	4	-0.51	0.28	3	-0.47	0.38	1	-0.04	0.35	1	-0.11	0.40	1
CONGO	COG	-0.79	0.17	6	-1.10	0.21	6	-1.56	0.25	4	-1.02	0.25	4	-1.23	0.30	3
Congo, Dem. Rep. (Zaire)	ZAR	-1.64	0.15	8	-1.89	0.22	5	-1.91	0.25	4	-1.67	0.26	3	-1.23	0.30	3
COSTA RICA	CRI	1.11	0.14	13	1.16	0.17	10	1.31	0.22	6	1.25	0.22	6	1.37	0.20	5
CROATIA CUBA	HRV CUB	0.46 -1.88	0.11 0.15	11 8	0.49 -1.77	0.12 0.17	10 7	0.38 -1.72	0.16 0.23	7 4	-0.30 -1.68	0.18 0.23	5 4	-0.50 -1.38	0.18 0.21	4 4
CYPRUS	CYP	1.00	0.15	8	0.94	0.17	6	1.22	0.23	4	1.06	0.23	4	1.06	0.21	4
CZECH REPUBLIC	CZE	1.03	0.10	11	0.90	0.13	9	0.99	0.25	8	1.14	0.23	7	1.06		6
DENMARK	DNK	1.59	0.16	10	1.72	0.17	10	1.51	0.21	7	1.51	0.23	5	1.73	0.21	5
DJIBOUTI	DJI	-0.85	0.19	4	-0.69	0.28	3	-0.56	0.38	1	-0.73	0.35	1	-0.77	0.40	1
DOMINICA	DMA	1.13	0.20	3	1.05	0.29	2	1.21	0.38	1	1.27	0.35	1	1.27	0.40	1
DOMINICAN REPUBLIC	DOM	0.27	0.15	9	0.19	0.18	7	0.43	0.22	6	-0.05	0.23	4	0.02	0.21	4
ECUADOR	ECU	-0.19	0.14	11	-0.06	0.18	8	-0.14	0.22	6	0.27	0.22	6	0.06	0.20	5
EGYPT	EGY	-1.04	0.15	9	-0.88	0.17	8	-0.81	0.22	6	-0.83	0.23	4	-0.74	0.21	4
EL SALVADOR	SLV	0.26	0.14	11	0.06	0.18	8	0.24	0.22	6	0.04	0.22	5	-0.22	0.20	5
EQUATORIAL GUINEA	GNQ	-1.71	0.19	4	-1.44	0.28	3	-1.46	0.38	1	-1.55	0.35	1	-1.47	0.40	1
ERITREA	ERI	-1.96	0.17	6	-2.05	0.23	5	-1.42	0.31	3	-1.07	0.30	2	-1.10	0.35	2
ESTONIA	EST	1.13	0.11	12	1.05	0.13	9	0.89	0.15	9	0.82	0.18	6	0.77	0.18	4
ETHIOPIA	ETH	-1.11	0.14	10	-1.14	0.21	6	-1.00	0.25	5	-0.69	0.26	3	-0.61	0.30	3
FIJI	FJI	0.15	0.18	5	-0.06	0.24	4	0.11	0.31	3	0.10	0.29	3	-0.09	0.35	2
FINLAND	FIN	1.50	0.16	9	1.70	0.17	9	1.60	0.21	7	1.51	0.23	5	1.71	0.21	5
FRANCE	FRA	1.24	0.16	10	1.29	0.17	9	1.07	0.21	8	1.09	0.23	6	1.50	0.21	5
FRENCH GUIANA	GUF	0.44	0.52	1 7	0.42 -0.42	0.47	1			 5	 0.26			 0.54	 0.21	
GABON GAMBIA	GAB GMB	-0.71 -0.59	0.15 0.16	8	-0.42 -1.03	0.18 0.21	6 6	-0.46 -0.98	0.22 0.26	5 3	-0.26 -1.18	0.23 0.26	3	-0.54 -1.34	0.21	4 3
GEORGIA	GEO	-0.39	0.16	11	-0.29	0.21	7	-0.96	0.26	3 6	-0.37	0.20	4	-0.52	0.30	3
GERMANY	DEU	1.38	0.11	10	1.51	0.14	10	1.35	0.10	8	1.36	0.21	6	1.55	0.23	5
CEIGIVII (14)	DLU	1.50	0.10	10	1.01	0.17	10	1.55	0.21	U	1.50	0.20	U	1.55	0.21	3

Note: "Est." refers to estimate, "S.E." refers to standard errors, and "N." refers to number of sources

			2004			2002			2000			1998			1996	
Country	Code	Est.	S.E.	N.	Est.	S.E.	N.	Est.	S.E.	N.	Est.	S.E.	N.	Est.	S.E.	N
SHANA	GHA	0.39	0.14	12	0.01	0.17	8	0.00	0.22	6	-0.53	0.23	5	-0.35	0.21	4
GREECE	GRC	0.91	0.16	9	1.05	0.18	8	1.01	0.23	5	0.92	0.23	5	0.98	0.21	Ę
BRENADA	GRD	0.85	0.19	4	0.68	0.29	2	0.99	0.38	1	1.05	0.35	1	1.05	0.40	•
GUAM	GUM	0.52	0.52	1												
GUATEMALA GUINEA	GTM GIN	-0.39 -1.12	0.13 0.17	13 6	-0.48 -1.19	0.17 0.22	10 5	-0.26 -1.12	0.22 0.26	6 3	-0.36 -0.99	0.22 0.25	5 4	-0.64 -1.13	0.20 0.30	3
BUINEA-BISSAU	GNB	-0.62	0.17	6	-0.74	0.22	6	-0.85	0.25	4	-0.99	0.25	4	-0.55	0.30	3
GUYANA	GUY	0.62	0.17	4	0.65	0.23	4	0.91	0.25	4	0.98	0.26	3	0.90	0.30	;
HAITI	HTI	-1.50	0.15	8	-1.11	0.21	7	-0.79	0.25	5	-0.65	0.26	3	-0.46	0.30	3
IONDURAS	HND	-0.02	0.15	11	-0.15	0.17	8	0.01	0.22	6	0.12	0.22	5	-0.36	0.20	
IONG KONG	HKG	0.21	0.17	8	0.15	0.18	8	-0.45	0.24	5	-0.16	0.25	5	0.62	0.22	4
IUNGARY	HUN	1.16	0.11	11	1.17	0.13	10	1.14	0.15	9	1.15	0.18	7	1.06	0.17	(
CELAND	ISL	1.41	0.18	8	1.52	0.21	7	1.44	0.25	5	1.36	0.25	4	1.45	0.29	4
NDIA	IND	0.27	0.15	11	0.38	0.17	10	0.45	0.22	7	0.26	0.23	6	0.28	0.21	;
NDONESIA RAN	IDN IRN	-0.44 -1.36	0.13 0.15	12 8	-0.49 -1.04	0.17 0.17	10 7	-0.52 -0.69	0.22 0.22	7 5	-1.33 -0.90	0.23 0.23	5 4	-1.15 -1.08	0.21 0.21	
RAQ	IRQ	-1.71	0.15	7	-2.12	0.17	6	-2.12	0.22	5	-1.93	0.23	4	-1.74	0.21	
RELAND	IRL	1.30	0.15	10	1.40	0.18	10	1.42	0.22	7	1.34	0.23	6	1.49	0.21	
SRAEL	ISR	0.46	0.16	10	0.61	0.17	10	0.94	0.22	6	1.01	0.23	5	1.07	0.21	į
ΓALY	ITA	1.06	0.16	9	1.11	0.17	9	1.06	0.21	8	1.21	0.23	6	1.10	0.21	
VORY COAST	CIV	-1.46	0.15	8	-1.25	0.17	7	-1.31	0.23	5	-0.65	0.23	5	-0.19	0.21	
AMAICA	JAM	0.54	0.15	8	0.51	0.18	6	0.70	0.23	4	0.66	0.23	5	0.55	0.21	4
APAN	JPN	0.98	0.16	10	0.99	0.17	10	0.99	0.21	7	1.05	0.25	4	1.08	0.21	;
ORDAN	JOR	-0.68	0.14	10	-0.41	0.18	7	-0.19	0.22	5	-0.19	0.23	5	-0.16	0.21	4
(AZAKHSTAN	KAZ	-1.21	0.10	11	-1.14	0.12	9 7	-0.91	0.15	8	-0.73	0.18	6 5	-1.00	0.18	4
(ENYA (IRIBATI	KEN KIR	-0.34 0.87	0.13 0.20	13 3	-0.58 1.09	0.17 0.35	1	-0.84 1.15	0.22 0.38	6 1	-0.77 1.26	0.23 0.35	5 1	-0.48 1.17	0.21 0.40	
OREA, NORTH	PRK	-2.05	0.20	8	-2.32	0.33	6	-2.02	0.26	3	-1.96	0.26	3	-1.84	0.30	;
OREA, SOUTH	KOR	0.73	0.15	11	0.63	0.17	10	0.76	0.21	7	0.68	0.23	6	0.71	0.21	;
CUWAIT	KWT	-0.48	0.16	7	-0.29	0.17	8	-0.22	0.23	4	-0.33	0.23	4	-0.20	0.21	4
YRGYZ REPUBLIC	KGZ	-1.06	0.11	9	-0.90	0.14	7	-0.68	0.18	4	-0.46	0.21	4	-0.48	0.23	;
AOS	LAO	-1.55	0.18	5	-1.73	0.25	4	-1.43	0.31	3	-1.26	0.30	2	-1.09	0.35	2
ATVIA	LVA	0.96	0.11	10	0.91	0.14	7	0.76	0.16	6	0.72	0.18	6	0.52	0.18	•
EBANON	LBN	-0.81	0.15	7	-0.54	0.18	7	-0.37	0.22	5	-0.51	0.23	4	-0.43	0.21	4
ESOTHO	LSO	0.28	0.18	6	-0.16	0.26	4	-0.03	0.33	2	-0.01	0.30	2	0.02	0.35	:
.IBERIA .IBYA	LBR LBY	-1.24 -1.79	0.16 0.15	7 7	-1.54 -1.70	0.21 0.18	6 6	-1.16 -1.60	0.25 0.23	4 4	-0.90 -1.58	0.26 0.23	3 4	-1.40 -1.46	0.30 0.21	3
IECHTENSTEIN	LIE	1.27	0.13	3	1.32	0.18	2	1.39	0.23	1	1.44	0.25	1	1.29	0.40	
LITHUANIA	LTU	0.97	0.11	11	0.89	0.13	8	0.95	0.15	8	0.84	0.18	6	0.76	0.18	4
UXEMBOURG	LUX	1.40	0.18	7	1.41	0.23	6	1.33	0.25	5	1.37	0.25	4	1.50	0.29	4
MACAO	MAC	0.11	0.52	1	0.42	0.47	1									
MACEDONIA	MKD	-0.02	0.11	10	-0.30	0.13	7	-0.03	0.17	5	0.06	0.19	5	-0.06	0.18	4
MADAGASCAR	MDG	0.07	0.17	7	-0.05	0.22	5	0.25	0.25	5	0.40	0.25	4	0.26	0.30	;
MALAWI	MWI	-0.50	0.14	10	-0.56	0.18	7	-0.28	0.22	6	-0.10	0.23	5	-0.43	0.21	4
MALAYSIA	MYS	-0.36	0.13	12	-0.28	0.17	10	-0.27	0.21	8	-0.25	0.23	6	-0.05	0.21	
MALDIVES	MDV	-1.07	0.19	4	-0.74	0.29	2 7	-0.94	0.38	1 4	-1.05	0.35	1 4	-0.98	0.40	:
NALI NALTA	MLI MLT	0.35 1.26	0.15 0.19	10 5	0.18 1.29	0.21 0.25	3	0.28 1.39	0.25 0.28	2	0.38 1.36	0.25 0.29	2	0.30 1.10	0.30 0.32	2
MARSHALL ISLANDS	MHL	1.14	0.19	2	1.23	0.25	1	1.30	0.28	1	1.35	0.25	1	1.23	0.32	
MARTINIQUE	MTQ	0.68	0.52	1	0.64	0.47	1									
MAURITANIA	MRT	-1.16	0.19	4	-0.67	0.25	4	-0.67	0.31	3	-0.91	0.30	2	-0.84	0.35	:
MAURITIUS	MUS	0.94	0.16	7	0.80	0.19	6	1.21	0.26	4	0.98	0.26	4	0.87	0.23	;
MEXICO	MEX	0.36	0.14	14	0.36	0.15	12	0.09	0.21	8	-0.17	0.22	7	-0.23	0.20	(
MICRONESIA	FSM	1.01	0.20	3	0.93	0.35	1	0.97	0.38	1	0.98	0.35	1	1.18	0.40	
MOLDOVA	MDA	-0.47	0.11	10	-0.32	0.13	7	-0.01	0.16	7	-0.03	0.18	6	-0.21	0.18	4
MONACO	MCO	0.91	0.21	2 7	0.92	0.35	1	1.11	0.38	1	1.17	0.35	1 4	1.03	0.40	
MONGOLIA MOROCCO	MNG MAR	0.45 -0.55	0.16 0.14	/ 10	0.44 -0.30	0.21 0.17	6 8	0.73 -0.44	0.25 0.23	4 4	0.62 -0.53	0.19 0.23	4 5	0.38 -0.63	0.30 0.21	3
MOZAMBIQUE	MOZ	-0.55	0.14	10	-0.30	0.17	6	-0.44	0.25	4	-0.55	0.25	4	-0.03	0.21	3
YANMAR	MMR	-2.19	0.15	8	-2.05	0.17	7	-2.12	0.22	5	-1.92	0.23	4	-1.73	0.21	2
IAMIBIA	NAM	0.47	0.14	11	0.33	0.17	9	0.28	0.22	6	0.42	0.23	4	0.52	0.21	4
NAURU	NRU	1.08	0.21	2	0.85	0.35	1	0.88	0.38	1	1.02	0.35	1	0.90	0.40	
IEPAL	NPL	-1.00	0.14	8	-0.52	0.23	5	-0.12		3	-0.01	0.30	2	0.14	0.35	2
IETHERLANDS	NLD	1.49	0.16	9	1.63	0.17	9	1.53	0.21	7	1.51	0.23	5	1.70	0.21	
IETHERLANDS ANTILLES	ANT	0.44	0.52	1												
NEW ZEALAND	NZL	1.47	0.16	9	1.60	0.18	7	1.51	0.22	6	1.37	0.23	5	1.66	0.21	
NICARAGUA	NIC	0.06	0.13	13	0.09	0.17	8	-0.08	0.22	6	-0.01	0.22	5	-0.22	0.20	
NIGER	NER	-0.12	0.17	6	-0.18	0.22	5	-0.07		4	-0.99	0.26	3	-0.41	0.30	3
NIGERIA	NGA	-0.65	0.13	13	-0.70	0.17	10	-0.68	0.22	7	-1.48	0.23	5	-1.49	0.21	

			2004			2002			2000			1998			1996	
Country	Code	Est.	S.E.	N.	Est.	S.E.	N.	Est.	S.E.	N.	Est.	S.E.	N.	Est.	S.E.	
IORWAY	NOR	1.53	0.16	9	1.64	0.17	9	1.50	0.22	6	1.55	0.23	5	1.76	0.21	
DMAN	OMN	-0.90	0.16	6	-0.55	0.17	7	-0.68	0.23	4	-0.74	0.23	4	-0.61	0.21	
PALAU	PCI	1.21	0.21	2												
PAKISTAN	PAK PAN	-1.31 0.54	0.14 0.16	10 10	-1.10 0.50	0.18	7 10	-1.53 0.69	0.22	6 6	-0.62 0.52	0.23 0.22	4 5	-0.98	0.21	
PANAMA	PNG	-0.03	0.16	7	-0.15	0.17 0.18	6	0.03	0.22 0.22	5	0.52	0.22	4	0.33 0.17	0.20	
PAPUA NEW GUINEA PARAGUAY	PRY	-0.03	0.15	/ 10	-0.15	0.18	9	-0.59	0.22	5 5	-0.28	0.23	6	-0.39	0.21	
PERU	PER	-0.23	0.15	12	0.11	0.17	11	-0.59	0.22	7	-0.26	0.22	6	-0.39	0.20	
PHILIPPINES	PHL	0.02	0.14	11	0.17	0.13	9	0.40	0.22	8	0.46	0.22	5	0.17	0.20	
POLAND	POL	1.13	0.13	12	1.11	0.17	11	1.12	0.15	9	1.01	0.23	7	0.17	0.17	
PORTUGAL	PRT	1.31	0.11	9	1.31	0.13	9	1.35	0.13	6	1.38	0.10	6	1.32	0.17	
PUERTO RICO	PRI	1.02	0.22	2	0.64	0.47	1									
QATAR	QAT	-0.79	0.15	7	-0.52	0.19	5	-0.66	0.24	3	-0.91	0.25	3	-0.83	0.22	
REUNION	REU	1.05	0.52	1								0.20				
ROMANIA	ROM	0.36	0.11	13	0.41	0.12	11	0.43	0.15	8	0.24	0.18	5	0.03	0.17	
RUSSIA	RUS	-0.81	0.11	13	-0.44	0.12	12	-0.44	0.15	9	-0.26	0.18	7	-0.36	0.17	
RWANDA	RWA	-1.09	0.17	6	-1.41	0.23	5	-1.46	0.31	3	-1.50	0.30	2	-1.43	0.35	
SAMOA	SAM	0.69	0.20	3	0.67	0.29	2	0.62	0.38	1	0.60	0.35	1	0.77	0.40	
SAN MARINO	SMR	1.18	0.21	2	1.17	0.35	1	1.39	0.38	1	1.44	0.35	1	1.29	0.40	
SAO TOME AND PRINCIPE	STP	0.55	0.20	3	0.48	0.29	2	0.93	0.38	1	0.75	0.35	1	0.88	0.40	
SAUDI ARABIA	SAU	-1.63	0.15	8	-1.40	0.17	8	-1.27	0.22	5	-1.37	0.23	4	-1.22	0.21	
BENEGAL	SEN	0.19	0.14	10	0.15	0.17	7	-0.11	0.22	6	-0.49	0.23	5	-0.17	0.21	
SERBIA AND MONTENEGRO	YUG	0.12	0.11	11	-0.23	0.12	8	-0.32	0.16	5	-0.96	0.18	5	-1.38	0.21	
SEYCHELLES	SYC	-0.04	0.19	4	0.19	0.28	3	0.11	0.38	1	0.19	0.35	1	0.10	0.40	
SIERRA LEONE	SLE	-0.49	0.15	8	-0.57	0.21	6	-1.36	0.25	4	-1.72	0.26	3	-1.37	0.30	
SINGAPORE	SGP	-0.13	0.15	10	0.51	0.18	7	-0.05	0.22	7	0.01	0.23	6	0.40	0.21	
SLOVAK REPUBLIC	SVK	1.10	0.11	10	0.92	0.14	8	0.90	0.16	8	0.45	0.18	6	0.37	0.17	
SLOVENIA	SVN	1.12	0.11	11	1.10	0.13	10	0.98	0.16	8	0.92	0.18	5	0.99	0.18	
SOLOMON ISLANDS	SLB	0.10	0.20	3	0.37	0.35	1	0.06	0.38	1	1.11	0.35	1	1.07	0.40	
SOMALIA	SOM	-1.58	0.16	7	-1.51	0.22	5	-1.37	0.25	4	-1.46	0.26	3	-1.91	0.30	
SOUTH AFRICA	ZAF	0.86	0.14	13	0.73	0.17	11	1.05	0.21	8	0.87	0.23	6	0.68	0.21	
SPAIN	ESP	1.17	0.16	10	1.24	0.17	10	1.10	0.21	8	1.27	0.23	6	1.15	0.21	
SRI LANKA	LKA	-0.16	0.14	10	-0.06	0.17	8	-0.37	0.22	5	-0.29	0.23	4	-0.21	0.21	
ST. KITTS AND NEVIS	KNA	0.75	0.20	3	0.96	0.35	1	1.01	0.38	1	1.07	0.35	1	1.06	0.40	
ST. LUCIA	LCA	0.97	0.20	3	1.04	0.35	1	1.06	0.38	1	1.12	0.35	1	1.13	0.40	
ST. VINCENT AND THE GRENADINES	VCT	0.96	0.20	3	0.98	0.35	1	1.03	0.38	1	1.09	0.35	1	1.14	0.40	
SUDAN	SDN	-1.81	0.15	8	-1.71	0.17	7	-1.75	0.22	5	-1.71	0.23	4	-1.66	0.21	
SURINAME	SUR	0.60	0.19	4	0.29	0.25	3	0.55	0.28	2	0.19	0.29	2	-0.06	0.32	
SWAZILAND	SWZ	-1.45	0.18	5	-1.18	0.25	4	-1.22	0.33	2	-0.92	0.30	2	-1.28	0.35	
SWEDEN	SWE	1.52	0.16	9	1.65	0.17	10	1.56	0.21	8	1.48	0.23	5	1.70	0.21	
SWITZERLAND	CHE	1.49	0.16	9	1.63	0.17	9	1.64	0.21	7	1.55	0.23	6	1.71	0.21	
SYRIA	SYR	-1.72	0.15	8	-1.56	0.17	7	-1.64	0.23	4	-1.59	0.23	4	-1.37	0.21	
TAIWAN	TWN	0.95	0.15	11	0.89	0.17	9	0.81	0.21	7	0.71	0.23	5	0.55	0.21	
AJIKISTAN	TJK	-1.12	0.11	8	-1.07	0.14	7	-0.93	0.18	4	-1.37	0.21	3	-1.42	0.23	
TANZANIA	TZA	-0.35	0.14	11	-0.41	0.17	8	-0.15	0.22	6	-0.40	0.23	5	-0.77	0.21	
THAILAND	THA	0.24	0.15	10	0.20	0.17	9	0.25	0.22	7	0.11	0.23	6	0.01	0.21	
ΓIMOR, EAST	TMP	0.25	0.17	5	0.19	0.29	2									
OGO	TGO	-1.22	0.17	6	-1.20	0.22	5	-1.09	0.26	3	-1.14	0.25	4	-1.07	0.30	
ONGA	TON	-0.35	0.19	4	-0.12	0.35	1	-0.09	0.38	1	-0.05	0.35	1	0.00	0.40	
RINIDAD AND TOBAGO	TTO	0.49	0.16	7	0.56	0.18	6	0.61	0.23	5	0.92	0.23	4	0.77	0.21	
UNISIA	TUN	-1.11	0.15	9	-0.83	0.17	8	-0.71	0.23	5	-0.92	0.23	4	-0.53	0.21	
URKEY	TUR	-0.15	0.15	11	-0.47	0.17	10	-0.65	0.21	8	-0.92	0.23	6	-0.41	0.21	
URKMENISTAN	TKM	-1.90	0.12	6	-1.85	0.16	5	-1.59	0.18	3	-1.59	0.21	3	-1.69	0.23	
UVALU	TUV	0.94	0.20	3	1.17	0.35	1	1.39	0.38	1	1.44	0.35	1	1.29	0.40	
JGANDA	UGA	-0.64	0.13	13	-0.77	0.17	8	-0.94	0.22	6	-0.61	0.23	5	-0.63	0.21	
JKRAINE	UKR	-0.62	0.10	13	-0.64	0.12	10	-0.39	0.16	7	-0.14	0.18	6	-0.39	0.18	
INITED ARAB EMIRATES	ARE	-1.01	0.16	7	-0.47	0.18	6	-0.62	0.23	4	-0.71	0.23	4	-0.68	0.21	
INITED KINGDOM	GBR	1.37	0.16	10	1.48	0.17	10	1.39	0.21	8	1.40	0.23	6	1.38	0.21	
INITED STATES	USA	1.21	0.16	9	1.32	0.17	9	1.18	0.22	7	1.41	0.23	6	1.53	0.21	
IRUGUAY	URY	1.00	0.15	10	0.95	0.18	8	1.04	0.22	6	0.74	0.22	5	0.78	0.20	
JZBEKISTAN	UZB	-1.75	0.10	10	-1.58	0.13	8	-1.39	0.17	6	-1.50	0.19	5	-1.39	0.18	
'ANUATU	VUT	0.68	0.20	3	0.89	0.35	1	0.62	0.38	1	0.63	0.35	1	0.47	0.40	
/ENEZUELA	VEN	-0.46	0.13	13	-0.41	0.17	10	-0.33	0.23	6	0.16	0.22	7	0.06	0.20	
/IETNAM	VNM	-1.54	0.14	10	-1.36	0.17	8	-1.53	0.22	5	-1.64	0.23	4	-1.31	0.21	
/IRGIN ISLANDS (U.S.)	VIR	0.66	0.52	1												
WEST BANK	WBG	-1.25	0.21	3	-1.08	0.28	3	-0.89	0.38	2	-0.65	0.35	2	-1.56	0.40	
/EMEN	YEM	-0.99	0.14	9	-0.88	0.17	7	-0.72		5	-0.60	0.23	4	-0.91	0.21	
ZAMBIA	ZMB	-0.36	0.14	11	-0.40	0.17	8	-0.24	0.22	6	-0.11	0.23	5	-0.16	0.21	
ZIMBABWE	ZWE	-1.48	0.13	10	-1.51	0.18	8	-0.07	0.23	5	0.72	0.23	5	-0.30	0.21	

RECHAINSTAIN ALG 2.03 0.23 7 2.25 0.27 4 2.26 0.37 2 2 2.06 0.40 1 1.20 20.35 1.40 1.40 1.40 1.40 1.40 1.40 1.40 1.40			-	2004			2002			2000			1998			1996	
LIBANNIA LIBANN	Country	Code	Est.		N.	Est.	S.E.	N.	Est.		N.	Est.	S.E.	N.	Est.		N
LICERIA DZA	FGHANISTAN	AFG	-2.03	0.23	7	-2.25	0.27	4	-2.48	0.37	2	-2.06	0.49	1	-1.82	0.54	1
MERICAN SAMOA ASM 0.75 0.55 1	LBANIA	ALB	-0.97	0.26	6	-0.50	0.28	4	-0.61	0.32	5	-0.60	0.29	4	0.20	0.35	3
NDORRA ADO 1,35 0.41 2 1,32 0.41 1	LGERIA	DZA	-1.42	0.21	9	-1.62	0.22	7	-1.75	0.27	5	-2.62	0.27	4	-2.78	0.32	4
NGOLLA AGO 0.95 0.22 8 1.54 0.22 7 2.32 0.27 5 2.07 0.27 5 2.17 0.32 NIGULA AD BARBUDA ATG 1.30 0.05 0.55 1	MERICAN SAMOA	ASM	0.75	0.55	1												
NOULLLA AIA AIA AIA AIA AIA AIA AIA AIA AIA	NDORRA			0.41													
NTIGUA AND BARBUDA ARG ROEMTINA ARG 0.51 0.25 0.6 0.75	NGOLA	AGO	-0.95	0.22		-1.54	0.22	7	-2.32	0.27	5	-2.07	0.27	5	-2.17	0.32	4
RGENTINA ARM O.51 O.54 O.54 O.59 O.55 O.57 O.55 O.55 O.57 O.55																	
IRMENIA ARM -0.51 0.25 6 -0.57 0.26 5 -0.50 0.33 5 -0.40 0.29 4 0.41 0.38 IRIBAA ARM -0.51 0.35 10 11 1.27 0.20 1 1.34 0.20 9 1.34 0.23 8 1.26 0.44 6 1.22 0.27 IUSTRIALIA AUS 1.03 0.19 11 1.16 0.20 9 1.34 0.23 8 1.26 0.44 6 1.22 0.27 IUSTRIALIA AUS 1.03 0.19 11 1.15 0.20 1 8 1.38 0.23 8 1.26 0.44 6 1.22 0.27 IUSTRIALIA AUS 1.03 0.19 11 1.15 0.20 1 8 1.38 0.23 8 1.26 0.44 0.44 0.41 0.38 0.27 IUSTRIALIA AUS 1.03 0.19 11 1.27 0.20 1 8 1.35 0.23 8 1.26 0.44 0.44 0.45 0.38 0.27 IUSTRIALIA AUS 1.03 0.19 11 1.27 0.20 1 8 0.55 0.27 6 0.40 0.45 0.45 0.45 0.45 0.45 0.45 0.45																	
INUBA ABW 0.97 0.55 1																	6
USSTRALIA AUS 1.03 0.19 11 11.19 11 11.19 11 11.10 11 11.10 11 11.10 11 11						-0.57	0.26	5	-0.60	0.33	5	-0.40	0.29	4	0.41	0.38	2
USTEINA AZE 1-52 022 1-11 1-12 02-10 1-11 1-12 02-10 1-13 0-13 0-13 0-13 0-13 0-13 0-13 0																	
AHAMANA																	
AHRAIN																	1
AMGLADESH BGD																	
MARBADOS																	_
BELARUS														-			
RELIGIUM BEL 0,94 0,20 10 1,07 0,20 9 0,97 0,23 8 1,01 0,24 6 0,06 0,27 RELIZE BIZ 0,65 0,31 4 0,57 0,36 2 0,9 0,52 2 0,99 0,52 0,4 0,49 0,49 1 0,93 0,54 REMUDA BMU 1,02 0,40 2,9 8 0,55 0,56 0,32 3 0,24 0,46 2 0,27 0,43 2 1,20 0,54 REMUDA BMU 1,02 0,40 2 0,82 0,41 1 1																	2
IELIZE BILZ 0.65 0.31 4 0.57 0.36 2 0.99 0.52 2 0.94 0.49 1 0.93 0.54 1 0.93 0.54 1 1 0.93 0.54 1 0.93 0.54 1 0.93 0.54 1 0.93 0.54 1 0.93 0.54 1 0.93 0.54 1 0.93 0.54 1 0.93 0.54 1 0.93 0.54 1 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93																	6
IENIN BEN 0,37 0,29 5 0,65 0,22 3 0,24 0,46 2 0,27 0,43 2 1,20 0,54 IERNUDA BMU 1,02 0,40 2 0,40 1																	1
IERMUDA BMU 1.02 0.40 2 0.82 0.41 1																	1
IOLIVIA																	
COSNIA-HERZEGOVINA	BHUTAN	BTN	0.84	0.31	4	0.81	0.36	2	0.74	0.54	1	0.74	0.49	1	1.00	0.54	•
NOTSWANA BWA 0.70	BOLIVIA	BOL	-0.65	0.22	9	-0.06	0.21	8	-0.41	0.27	7	0.08	0.26	5	-0.23	0.32	4
IRAZIL	BOSNIA-HERZEGOVINA	BIH	-0.85	0.24	8	-0.75	0.26	5	-0.34	0.50	3	-0.42	0.49	1	-0.41	0.54	•
IRUNEI BRN 1.06 0.37 3 1.05 0.33 3 1.32 0.46 2 1.46 0.35 2 1.08 0.47 1.01 0.10 0.10 0.10 0.10 0.10 0.10 0.1	BOTSWANA	BWA	0.70	0.23	8	0.79	0.21	8	0.90	0.27	6	0.89	0.27	5	0.87	0.32	4
BURCARIA BGR	BRAZIL	BRA	-0.13	0.19		0.11	0.19			0.23		-0.38	0.24		-0.17	0.27	6
BURKINA FASO																	2
RENIADID BD																	4
AMBODIA KHM OBO OBJ OBJ OBJ OBJ OBJ OBJ OB																	2
AMEROON CMR -0.90 0.22 8 -0.46 0.23 6 -0.55 0.28 6 -0.75 0.26 6 -0.98 0.32 -0.00 ANADA CAN 1.13 0.19 12 1.10 0.19 10 1.34 0.23 10 1.18 0.24 7 1.02 0.27 0.00 ANADA CAN 1.13 0.19 12 1.10 0.19 10 1.34 0.23 10 1.18 0.24 7 1.02 0.27 0.00 ANADA CAN 1.13 0.19 12 1.00 0.19 10 1.34 0.23 10 1.18 0.24 7 1.02 0.27 0.00 ANADA CAN 1.13 0.19 12 1.00 0.19 10 1.34 0.23 10 1.18 0.24 7 1.02 0.27 0.00 ANADA CAN 1.13 0.24 7 1.02 0.27 0.00 ANADA CAN 1.13 0.24 0.00 0.00 0.00 0.00 0.00 0.00 0.00					-												1
AANADA AANADA CAN 1.13 0.19 12 1.10 0.19 10 1.34 0.23 10 1.18 0.24 7 1.02 0.27 0.27 0.28 0.28 0.41 1 0.0																	•
APRE VERDE CPV 0.67 0.41 2 0.82 0.41 1																	
CAYMAN ISLANDS CYM 1.58 0.40 2 0.82 0.41 1																	(
EENTRAL AFRICAN REPUBLIC CAF																	•
CHAD TCD -1.20 0.30 5 -1.54 0.33 3 -0.87 0.54 1 -1.37 0.43 2 -0.68 0.54 CHILE CHL 0.89 0.19 11 1.03 0.19 11 0.85 0.23 10 0.61 0.24 6 0.75 0.27 (CHINA CHN -0.07 0.19 11 0.06 0.19 10 0.13 0.23 9 0.06 0.24 6 0.12 0.27 (CHINA CHN -0.07 0.19 11 0.06 0.19 10 0.13 0.23 10 1.156 0.24 6 0.12 0.27 (CHINA CHN -0.07 0.19 11 0.06 0.19 10 0.13 0.23 10 1.156 0.24 7 1.25 0.27 (CHINA CHN -0.07 0.19 11 0.06 0.19 10 0.13 0.23 10 1.156 0.24 7 1.25 0.27 (CHINA CHN -0.07 0.19 0.10 1.195 0.20 10 1.173 0.23 10 1.156 0.24 7 1.25 0.27 (CHINA CHN -0.13 0.41 2 -0.19 0.41 1																	1
CHILE CHIL CHIL CHIL CHIL CHIL CHIN																	1
CHINA CHIN -0.07 0.19 11 0.06 0.19 10 0.13 0.23 9 0.06 0.24 6 0.12 0.27 0.20 (COMBIA) COLOMBIA COL -1.69 0.20 10 -1.95 0.20 10 -1.73 0.23 10 -1.56 0.24 7 -1.25 0.27 0.20 (COMBOROS) COM -0.13 0.41 2 -0.19 0.41 1																	e
COLOMBIA COL -1.69 0.20 10 -1.95 0.20 10 -1.73 0.23 10 -1.56 0.24 7 -1.25 0.27 0.20 0.00 0.00 0.00 0.00 0.00 0.00																	e
COMOROS COM -0.13 0.41 2 -0.19 0.41 1																	6
CONGO COG -1.41 0.27 6 -1.63 0.28 5 -1.74 0.41 3 -1.94 0.33 3 -0.70 0.47 2. CONGO, Dem. Rep. (Zaire)																	
COSTA RICA CRI 0.98 0.21 10 1.10 0.20 9 1.24 0.26 7 1.08 0.25 6 0.89 0.30 22 CROATIA HRV 0.35 0.22 9 0.48 0.22 7 0.49 0.28 6 0.46 0.27 4 0.24 0.34 3 CUBA CUBA 0.18 0.22 8 0.30 0.22 7 0.10 0.27 5 0.07 0.27 4 0.02 0.32 2 CUBA CYP 0.34 0.22 8 0.38 0.22 6 0.62 0.28 4 0.59 0.27 4 0.60 0.32 2 CUBA CZECH REPUBLIC CZE 0.84 0.20 11 1.07 0.20 9 0.84 0.23 9 0.97 0.24 7 1.08 0.27 6 CUBA CENTRALE DINK 1.21 0.19 12 1.26 0.20 9 1.45 0.23 9 1.40 0.24 6 1.27 0.27 6 CUBA COMINICA DIJI 0.44 0.41 2 0.69 0.41 1	CONGO			0.27			0.28		-1.74	0.41		-1.94	0.33				2
CROATIA HRV 0.35 0.22 9 0.48 0.22 7 0.49 0.28 6 0.46 0.27 4 0.24 0.34 CUBA CUB 0.18 0.22 8 0.30 0.22 7 -0.10 0.27 5 0.07 0.27 4 0.60 0.32 4 0.79 PRUS CYP 0.34 0.22 8 0.38 0.22 6 0.62 0.28 4 0.59 0.27 4 0.60 0.32 4 0.28 PRUBLIC CZE 0.84 0.20 11 1.07 0.20 9 0.84 0.23 9 0.97 0.24 7 1.08 0.27 6 0.28 PRUBLIC DNK 1.21 0.19 12 1.26 0.20 9 1.45 0.23 9 1.40 0.24 6 1.27 0.27 6 0.28 PRUBLIC DIJI -0.44 0.41 2 -0.69 0.41 1	Congo, Dem. Rep. (Zaire)	ZAR	-2.27	0.22	8	-2.35	0.24	6	-2.83	0.32	4	-2.77	0.30	3	-1.73	0.35	3
CUBA CUB 0.18 0.22 8 0.30 0.22 7 -0.10 0.27 5 0.07 0.27 4 0.02 0.32 A CYPRUS CYP 0.34 0.22 8 0.38 0.22 6 0.62 0.28 4 0.59 0.27 4 0.60 0.32 A CYPRUS CYP 0.34 0.22 8 0.38 0.22 6 0.62 0.28 4 0.59 0.27 4 0.60 0.32 A CYPRUS CYP 0.34 0.22 8 0.38 0.22 6 0.62 0.28 4 0.59 0.27 4 0.60 0.32 A CYPRUS CYP 0.34 0.22 8 0.38 0.22 6 0.62 0.28 4 0.59 0.27 4 0.60 0.32 A CYPRUS CYP 0.34 0.22 8 0.38 0.22 6 0.62 0.28 4 0.23 9 0.97 0.24 7 1.08 0.27 6 CYPRUS CYPRUS CYP 0.34 0.22 8 0.20 9 0.84 0.23 9 0.97 0.24 7 1.08 0.27 0.28 A CYPRUS CYPRUS CYP 0.34 0.20 11 1.07 0.20 9 0.84 0.23 9 0.97 0.24 6 1.27 0.27 0.28 A CYPRUS CYPRUS CYPRUS CYP 0.34 0.22 8 0.20 9 1.45 0.23 9 1.40 0.24 6 1.27 0.27 0.28 A CYPRUS CYPRUS CYPRUS CYP 0.34 0.22 8 0.20 9 1.45 0.23 9 1.40 0.24 6 1.27 0.27 0.28 A CYPRUS CYPRUS CYPRUS CYP 0.34 0.22 8 0.24 0.20 1 1 0.0 0.49 0.20 8 0.00 0.24 8 0.58 0.25 6 0.61 0.28 A CYPRUS CYPRUS CYPRUS CYP 0.34 0.22 8 0.24 0.22 7 0.18 0.27 7 0.06 0.31 3 0.20 0.40 0.28 A CYPRUS CYPRUS CYPRUS CYPRUS CYPRUS CYP 0.34 0.22 8 0.24 0.22 7 0.18 0.27 7 0.06 0.31 3 0.20 0.40 0.28 A CYPRUS CYPRUS	COSTA RICA	CRI	0.98	0.21	10	1.10	0.20	9	1.24	0.26	7	1.08	0.25	6	0.89	0.30	
CYPRUS CYP 0.34 0.22 8 0.38 0.22 6 0.62 0.28 4 0.59 0.27 4 0.60 0.32 A CZECH REPUBLIC CZE 0.84 0.20 11 1.07 0.20 9 0.84 0.23 9 0.97 0.24 7 1.08 0.27 6 CZECH REPUBLIC DNK 1.21 0.19 12 1.26 0.20 9 1.45 0.23 9 1.40 0.24 6 1.27 0.27 6 CZECH REPUBLIC DNK 1.21 0.19 12 1.26 0.20 9 1.45 0.23 9 1.40 0.24 6 1.27 0.27 6 CZECH REPUBLIC DNA 1.19 0.34 3 0.56 0.41 1	CROATIA	HRV	0.35	0.22	9	0.48	0.22	7	0.49	0.28	6	0.46	0.27	4	0.24	0.34	3
CZECH REPUBLIC CZE 0.84 0.20 11 1.07 0.20 9 0.84 0.23 9 0.97 0.24 7 1.08 0.27 0.27 0.28 0.29 0.39 0.40 0.23 9 0.97 0.24 7 1.08 0.27 0.27 0.27 0.28 0.38 0.39 0.39 0.40 0.24 6 1.27 0.27 0.27 0.38 0.38 0.39 0.39 0.39 0.40 0.24 6 1.27 0.27 0.27 0.38 0.38 0.39 0.39 0.39 0.40 0.24 6 1.27 0.27 0.27 0.38 0.39 0.39 0.40 0.24 0.23 9 0.40 0.24 6 1.27 0.27 0.30 0.30 0.31 0.30 0.31 0.30 0.31 0.30 0.31 0.30 0.31 0.30 0.31 0.30 0.31 0.31 0.32 0.32 0.33 0.32 0.33 0.34 0.37 0.38 0.32 0.33 0.34 0.37 0.38 0.39	CUBA	CUB	0.18	0.22	8	0.30	0.22	7	-0.10	0.27	5	0.07	0.27	4	0.02	0.32	4
DENMARK DNK 1.21 0.19 12 1.26 0.20 9 1.45 0.23 9 1.40 0.24 6 1.27 0.27 0.27 0.27 0.27 0.28 0.28 0.29 1.40 0.24 6 1.27 0.27 0.27 0.27 0.27 0.28 0.28 0.29 0.41 1					8	0.38		6	0.62			0.59			0.60		4
DII -0.44																	6
DOMINICA DMA 1.19 0.34 3 0.56 0.41 1									1.45	0.23	9	1.40	0.24	6	1.27	0.27	6
DOMINICAN REPUBLIC DOM -0.01 0.22 8 0.24 0.22 7 0.18 0.27 7 -0.06 0.31 3 -0.20 0.40 0.20 0.40 0.20 0.40 0.20 0.40 0.25 0.2																	
ECU -0.83 0.20 10 -0.68 0.20 9 -1.01 0.25 8 -0.58 0.25 6 -0.61 0.28 8																	
EGYPT																	3
EL SALVADOR SLV -0.23 0.25 7 0.32 0.23 7 0.47 0.30 6 0.20 0.29 4 -0.09 0.36 4 (0.04) 0.30 6 (0.04) 0.20 0.29 4 -0.09 0.36 4 (0.04) 0.30 0.36 3 0.24 0.37 2																	
QUATORIAL GUINEA GNQ -0.30 0.36 3 0.24 0.37 2																	
ERI																	2
EST 0.92 0.20 11 1.02 0.20 9 0.84 0.24 9 0.95 0.26 5 0.84 0.34 3 1.01 0.47 2.01 0.40 1.01 0.47 1																	
ETH																	3
FULLAND FIN 1.65 0.20 11 1.69 0.20 9 1.72 0.23 9 1.60 0.43 2 0.93 0.54 FINLAND FIN 1.65 0.20 11 1.69 0.20 9 1.72 0.23 9 1.60 0.24 6 1.45 0.27 6 FRANCE FRA 0.53 0.19 12 0.71 0.19 10 1.14 0.23 10 0.83 0.24 7 1.03 0.27 6 FRENCH GUIANA GUF 0.48 0.55 1 0.31 0.41 1																	2
FINLAND FIN 1.65 0.20 11 1.69 0.20 9 1.72 0.23 9 1.60 0.24 6 1.45 0.27 6 1.60 0.24 6 1.45																	1
FRANCE FRA 0.53 0.19 12 0.71 0.19 10 1.14 0.23 10 0.83 0.24 7 1.03 0.27 0.25 0.23 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25																	6
FRENCH GUIANA GUF 0.48 0.55 1 0.31 0.41 1																	6
GABON GAB -0.01 0.22 7 0.25 0.23 6 -0.34 0.27 5 -0.29 0.31 3 -0.15 0.40 3 GAMBIA GMB 0.38 0.32 5 0.56 0.29 4 0.34 0.46 2 0.63 0.35 2 0.20 0.47 2 GEORGIA GEO -1.26 0.24 8 -1.71 0.26 5 -0.79 0.34 5 -0.81 0.34 3 -0.72 0.38 2																	
GAMBIA GMB 0.38 0.32 5 0.56 0.29 4 0.34 0.46 2 0.63 0.35 2 0.20 0.47 2 GEORGIA GEO -1.26 0.24 8 -1.71 0.26 5 -0.79 0.34 5 -0.81 0.34 3 -0.72 0.38 2																	3
GEORGIA GEO -1.26 0.24 8 -1.71 0.26 5 -0.79 0.34 5 -0.81 0.34 3 -0.72 0.38 2																	2
																	2
																	6

TABLE C2: Politic		•	2004	•		2002			2000			1998			1996	
Country	Code	Est.	S.E.	N.	Est.	S.E.	N.	Est.	S.E.	N.	Est.	S.E.	N.	Est.	S.E.	N.
GHANA	GHA	-0.10	0.21	10	0.03	0.22	7	-0.04	0.28	6	0.02	0.26	6	0.06	0.32	4
GREECE	GRC	0.53	0.20	11	0.76	0.20	9	0.87	0.24	7	0.38	0.24	6	0.42	0.27	6
GRENADA	GRD	0.95	0.34	3	0.56	0.41	1									
GUAM	GUM	0.61	0.55	1												
GUATEMALA	GTM	-0.85	0.23	9	-0.43	0.22	8	-0.89	0.30	6	-0.89	0.29	4	-1.14	0.36	4
GUINEA	GIN	-0.91	0.29	5	-1.41	0.30	4	-1.16	0.46	2	-0.88	0.33	3	-1.33	0.47	2
GUINEA-BISSAU	GNB	-0.53	0.33	4	-0.41	0.29	4	-0.74	0.41	3	-1.14	0.33	3	-0.57	0.47	2
GUYANA	GUY	-0.53	0.29	5	-0.39	0.33	3	-0.42	0.41	3	0.02	0.35	2	0.10	0.47	2
HAITI	HTI	-1.87	0.27	6	-1.29	0.28	5	-0.77	0.40	4	-1.27	0.35	2	-0.21	0.47	2
HONDURAS	HND	-0.69	0.23	8	-0.08	0.22	8	0.26	0.30	6	-0.18	0.29	4	-0.40	0.36	4
HONG KONG	HKG	1.30	0.22	9	1.06	0.22	7	1.15	0.27	6	0.96	0.28	5	0.30	0.33	4
HUNGARY	HUN	0.85	0.19	11	1.11	0.19	10	0.78	0.23	10	1.19	0.24	7	0.79	0.27	6
ICELAND	ISL	1.77	0.26	8	1.59	0.29	5	1.71	0.35	5	1.40	0.33	3	1.22	0.41	3
INDIA	IND	-0.81	0.19	12	-0.93	0.19	10	-0.40	0.23	9	-0.42	0.24	7	-0.77	0.27	6
INDONESIA	IDN	-1.38	0.19	12	-1.45	0.19	10	-1.85	0.23	9	-1.47	0.24	6	-0.45	0.27	6
IRAN	IRN	-0.91	0.20	9	-0.67	0.20	8	-0.20	0.25	6	-0.23	0.25	5	-0.37	0.28	5
IRAQ	IRQ	-2.87	0.24	6	-1.76	0.23	6	-1.96	0.27	5	-2.48	0.27	4	-2.96	0.32	4
IRELAND	IRL	1.22	0.19	12	1.32	0.20	9	1.39	0.23	9	1.52	0.24	7	1.23	0.27	6
ISRAEL	ISR	-1.01	0.20	11	-1.46	0.20	9	-0.58	0.24	7	-0.40	0.26	5	-0.50	0.27	6
TALY	ITA	0.31	0.20	11	0.85	0.20	9	0.82	0.23	10	1.17	0.24	7	0.75	0.27	6
VORY COAST	CIV	-2.28	0.22	8	-2.00	0.22	7	-0.90	0.28	5	-0.03	0.26	6	0.32	0.32	4
JAMAICA	JAM	-0.28	0.25	7	-0.17	0.24	6	0.28	0.32	4	-0.17	0.29	4	0.64	0.40	3
JAPAN	JPN	0.99	0.19	12	1.23	0.19	10	1.25	0.23	9	1.19	0.27	5	1.08	0.27	6
JORDAN	JOR	-0.12	0.22	9	-0.32	0.22	7	0.21	0.26	6	0.02	0.25	6	0.40	0.30	5
KAZAKHSTAN	KAZ	-0.11	0.20	9	0.38	0.20	8	0.26	0.25	8	0.18	0.25	6	-0.05	0.30	4
KENYA	KEN	-0.96	0.21	10	-0.98	0.22	7	-0.96	0.27	6	-0.98	0.26	6	-0.38	0.32	4
KIRIBATI	KIR	0.77	0.41	2												
KOREA, NORTH	PRK	-0.67	0.27	5	0.70	0.29	4	-0.66	0.41	3	-0.86	0.35	2	-1.20	0.47	2
KOREA, SOUTH	KOR	0.45	0.19	12	0.50	0.19	10	0.49	0.23	9	0.24	0.24	7	0.16	0.27	6
KUWAIT	KWT	0.29	0.22	8	0.25	0.22	7	0.76	0.28	4	0.70	0.27	4	0.22	0.32	4
KYRGYZ REPUBLIC	KGZ	-0.91	0.25	6	-1.10	0.26	5	-0.09	0.37	3	0.70	0.34	3	0.76	0.38	2
LAOS	LAO	-0.76	0.31	4	-0.16	0.33	3	0.09	0.46	2	0.60	0.49	1	1.20	0.54	1
LATVIA	LVA	0.95	0.22	9	0.95	0.22	7	0.69	0.27	6	0.54	0.26	5	0.77	0.34	3
LEBANON	LBN	-0.83	0.22	7	-0.63	0.23	6	-0.52	0.27	5	-0.34	0.27	4	-0.37	0.32	4
LESOTHO	LSO	0.27	0.30	4	-0.03	0.30	3	1.01	0.54	1	0.38	0.46	2	1.00	0.54	1
LIBERIA	LBR	-2.20	0.29	5	-2.28	0.29	4	-1.35	0.41	3	-1.20	0.35	2	-2.42	0.47	2
LIBYA	LBY	-0.02	0.24	6	-0.34	0.23	6	-0.54	0.28	4	-1.22	0.27	4	-1.59	0.32	4
LIECHTENSTEIN	LIE	1.39	0.41	2	1.32	0.41	1									
LITHUANIA	LTU	0.85	0.21	10	1.03	0.21	8	0.53	0.26	8	0.54	0.26	5	0.68	0.34	3
LUXEMBOURG	LUX	1.66	0.26	8	1.68	0.29	5	1.64	0.37	4	1.52	0.33	3	1.39	0.41	3
MACAO	MAC	1.14	0.55	1	0.56	0.41	1									
MACEDONIA	MKD	-1.04	0.23	8	-0.94	0.25	4	-0.82	0.36	3	-0.30	0.35	3	0.21	0.44	2
MADAGASCAR	MDG	-0.02	0.28	6	0.22	0.23	3	0.05	0.40	4	-0.28	0.33	3	0.23	0.44	2
MALAWI	MWI	-0.02	0.25	7	0.16	0.35	5	0.03	0.40	5	0.12	0.29	5	0.10	0.40	3
MALAYSIA	MYS	0.38	0.23	12	0.16	0.23	10	0.35	0.23	10	0.12	0.24	7	0.10	0.40	6
MALDIVES	MDV	0.82	0.19	3	1.32	0.19	1									
MALI	MLI	0.02	0.34	3 7	-0.10	0.41	5	 0.52	 0.41	3	 0.19	0.33	3	0.64	0.47	2
MALTA	MLT	1.46	0.27	6	1.49	0.26	2	1.10	0.67	1	1.37	0.33	1	0.84	0.68	1
MARSHALL ISLANDS	MHL	0.66	0.26	1												
MARTINIQUE	MTQ	1.47	0.54	2	 0.56	 0.41	 1					••				
	MRT			4			2	-0.38 	 0.46	2	 0.53	 0.40		 0.73	 0.54	 1
MAURITANIA MALIPITILIS	MUS	0.26	0.31 0.31	4	0.30 1.11	0.36 0.29	3	-0.38 1.16	0.46	3	0.53 1.27	0.49	1	0.73	0.54 0.44	1
MAURITIUS MEXICO		0.91						1.16	0.38			0.34	4	1.18		2
MEXICO	MEX	-0.13	0.19	12	0.25	0.19	11	-0.11	0.23	10	-0.48	0.24	7	-0.36	0.27	6
MICRONESIA MOLDOVA	FSM	0.83	0.34	3												
MOLDOVA	MDA	-0.62	0.24	7	-0.06	0.24	5	-0.09	0.27	6	0.12	0.26	5	-0.14	0.34	3
MONACO	MCO	1.13	0.40	2												
MONGOLIA	MNG	0.48	0.27	6	0.95	0.29	4	0.99	0.41	3	0.52	0.35	2	0.80	0.47	2
MOROCCO	MAR	-0.23	0.21	9	-0.18	0.21	8	0.11	0.28	4	0.16	0.26	6	-0.40	0.28	5
MOZAMBIQUE	MOZ	-0.15	0.24	8	0.59	0.28	5	-0.28	0.41	3	-0.66	0.32	4	-0.34	0.47	2
MYANMAR	MMR	-1.21	0.22	8	-1.26	0.22	7	-1.47	0.27	5	-1.17	0.27	4	-1.09	0.32	4
NAMIBIA	NAM	0.46	0.21	9	0.43	0.21	8	-0.57	0.31	5	0.51	0.30	4	0.84	0.40	3
NAURU	NRU	0.66	0.54	1												
NEPAL	NPL	-1.74	0.25	6	-1.64	0.30	4	-1.13	0.46	2	-0.63	0.49	1	-0.35	0.54	1
NETHERLANDS	NLD	1.15	0.20	11	1.30	0.20	9	1.59	0.23	9	1.57	0.24	6	1.52	0.27	6
NETHERLANDS ANTILLES	ANT	0.66	0.55	1												
NEW ZEALAND	NZL	1.51	0.22	9	1.37	0.22	7	1.32	0.24	7	1.51	0.26	5	1.32	0.30	5
NICARAGUA	NIC	-0.15	0.23	8	0.11	0.22	8	0.22	0.30	6	-0.21	0.29	4	-0.66	0.36	4
NIGER	NER	-0.56	0.29	5	-0.24	0.33	3	-0.06	0.41	3	-0.40	0.35	2	-0.10	0.47	2
NIGERIA	NGA	-1.78	0.21	10	-1.56	0.21	8	-1.47	0.26	8	-1.03	0.26	6	-1 56	0.28	5

	- •		2004			2002			2000			1998			1996	
Country	Code	Est.	S.E.	N.	Est.	S.E.	N.	Est.	S.E.	N.	Est.	S.E.	N.	Est	S.E.	N
NORWAY	NOR	1.53	0.20	11	1.51	0.21	8	1.44	0.23	8	1.52	0.24	6	1.46	0.27	6
DMAN	OMN	0.76	0.22	8	1.05	0.22	7	1.06	0.27	5	0.87	0.27	4	0.74	0.32	4
PALAU	PCI	0.66	0.54	1												
PAKISTAN	PAK	-1.59	0.20	10	-1.40	0.21	7	-0.60	0.25	7	-0.88	0.24	6	-1.2	0.28	5
PANAMA	PAN	0.29	0.21	9	0.39	0.20	9	0.60	0.26	7	0.34	0.27	4	0.36		4
PAPUA NEW GUINEA	PNG	-0.94	0.22	8	-0.71	0.22	6	-0.46	0.27	5	-0.42	0.31	3	-1.18		3
PARAGUAY	PRY	-0.71	0.23	8	-1.10	0.22	8	-0.84	0.32	5	-0.36	0.29	4	-0.0		3
PERU	PER	-0.68	0.20	11	-0.69	0.19	10	-0.46	0.24	9	-0.47	0.24	7	-0.9		6
PHILIPPINES	PHL	-1.01	0.19	12	-0.61	0.19	10	-0.39	0.23	10	0.03	0.24	6	-0.12		6
POLAND	POL	0.35	0.19	12	0.73	0.19	10	0.84	0.23	10	0.80	0.24	7	0.66		6
PORTUGAL	PRT	1.06	0.20	11	1.42	0.21	8	1.47	0.23	8	1.45	0.24	7	1.36		6
PUERTO RICO	PRI	1.07	0.29	4	0.62	0.32	2	0.90	0.46	1	0.83	0.49	1	0.80		1
QATAR	QAT	0.92	0.22	7	0.82	0.25	4	1.45	0.30	4	1.43	0.31	3	0.90	0.37	3
REUNION	REU	0.83	0.55	1												
ROMANIA	ROM	0.22	0.20	11	0.34	0.21	8	0.01	0.26	8	0.20	0.27	4	0.56		4
RUSSIA	RUS	-0.85	0.19	12	-0.52	0.19	10	-0.60	0.23	10	-0.62	0.24	7	-0.9		6
RWANDA	RWA	-0.92	0.36	3	-1.43	0.32	3	-1.56	0.46	2	-2.06	0.49	1	-1.2	2 0.54	1
SAMOA SAN MARINO	SAM	0.89	0.34	3	0.82	0.41	1									
SAN MARINO SAO TOME AND PRINCIPE	SMR STP	1.22	0.54	1 2	 0.56				••						••	•
SAUDI ARABIA	SAU	0.08 -0.60	0.41 0.20	9	0.56 -0.12	0.41 0.20	1 8	 0.41	 0.25	 6	 0.12	 0.25	 5	-0.2	7 0.28	
	SEN	-0.60	0.20	9 7	-0.12	0.20	6	-0.72	0.25	ь 5	-1.08	0.25	5 4	-0.2 -0.6		3
SENEGAL SERBIA AND MONTENEGRO	YUG	-0.21 -0.97	0.24	<i>7</i> 8	-0.26 -0.86	0.24	6	-0.72	0.31	3	-1.08 -1.68	0.29	3	-0.6 -1.2		3
SEYCHELLES	SYC	-0.97 0.84	0.22	4	1.07	0.23	1									
SIERRA LEONE	SLE	-0.61	0.31	5	-1.37	0.41	4	-1.53	 0.41	3	-2.02	0.35	2	-2.2	 5 0.47	2
SINGAPORE	SGP	1.48	0.29	11	1.28	0.29	9	1.52	0.41	9	1.32	0.33	7	1.39		6
SLOVAK REPUBLIC	SVK	0.65	0.22	9	0.99	0.21	8	0.73	0.25	8	0.95	0.25	6	0.61		5
SLOVENIA	SVN	0.99	0.21	10	1.34	0.20	9	1.00	0.24	8	1.14	0.27	4	1.10		3
SOLOMON ISLANDS	SLB	-0.70	0.41	2												
SOMALIA	SOM	-2.39	0.33	4	-1.97	0.29	4	-1.32	0.41	3	-1.66	0.35	2	-2.1		2
SOUTH AFRICA	ZAF	-0.24	0.19	12	-0.23	0.19	10	-0.13	0.23	10	-0.80	0.23	8	-0.9		6
SPAIN	ESP	0.54	0.19	12	0.63	0.19	10	1.08	0.23	10	0.75	0.24	7	0.64		6
SRI LANKA	LKA	-1.06	0.21	9	-0.97	0.21	8	-1.83	0.26	6	-1.72	0.27	4	-1.7		4
ST. KITTS AND NEVIS	KNA	1.41	0.34	3												
ST. LUCIA	LCA	1.41	0.34	3												
ST. VINCENT AND THE GRENADINES	VCT	1.31	0.34	3												
SUDAN	SDN	-2.08	0.23	7	-1.99	0.22	7	-2.42	0.27	5	-1.99	0.31	3	-2.7	3 0.40	3
SURINAME	SUR	0.36	0.33	4	0.46	0.36	2	0.11	0.67	1	-0.19	0.46	1	-0.0	7 0.68	1
SWAZILAND	SWZ	0.23	0.30	4	0.25	0.30	3	0.54	0.54	1	-0.14	0.46	2	0.19	0.54	1
SWEDEN	SWE	1.38	0.19	11	1.41	0.20	9	1.49	0.23	10	1.51	0.24	6	1.42	0.27	6
SWITZERLAND	CHE	1.44	0.20	11	1.56	0.21	8	1.73	0.23	9	1.76	0.24	7	1.59	0.27	6
SYRIA	SYR	-0.66	0.22	8	-0.20	0.22	7	-0.42	0.27	5	-0.19	0.27	4	-0.5	0.32	4
TAIWAN	TWN	0.52	0.19	12	0.82	0.19	10	0.77	0.23	9	0.99	0.24	6	1.01	0.27	6
TAJIKISTAN	TJK	-1.19	0.25	6	-1.17	0.26	5	-1.43	0.35	3	-1.56	0.37	2	-2.6	7 0.38	2
TANZANIA	TZA	-0.38	0.21	9	-0.25	0.22	7	-0.33	0.27	6	0.42	0.26	6	0.02	0.32	4
THAILAND	THA	-0.15	0.19	11	0.45	0.19	10	0.24	0.23	9	0.28	0.24	7	0.20	0.27	6
TIMOR, EAST	TMP	-0.62	0.34	3	-0.94	0.41	1									
TOGO	TGO	-0.55	0.29	5	0.08	0.33	3	-0.47	0.46	2	-0.99	0.33	3	-0.5	0.47	2
TONGA	TON	0.72	0.34	3												
TRINIDAD AND TOBAGO	TTO	0.04	0.25	7	0.01	0.25	5	0.42	0.32	5	0.68	0.31	3	0.66	0.40	3
TUNISIA	TUN	0.16	0.21	9	0.30	0.21	8	0.73	0.27	6	0.48	0.27	5	0.24		4
TURKEY	TUR	-0.60	0.19	12	-0.66	0.19	10	-1.01	0.23	10	-1.10	0.24	7	-1.2		6
TURKMENISTAN	TKM	-0.92	0.27	5	-0.19	0.28	4	0.10	0.37	2	0.19	0.37	2	0.36	0.38	2
TUVALU	TUV	0.86	0.41	2												
UGANDA	UGA	-1.27	0.21	9	-1.47	0.22	7	-1.35	0.27	6	-0.95	0.26	6	-1.19		4
UKRAINE	UKR	-0.27	0.20	11	0.12	0.20	9	-0.48	0.25	8	-0.19	0.24	7	-0.2		5
JNITED ARAB EMIRATES	ARE	0.91	0.22	8	0.93	0.23	6	1.17	0.28	4	0.85	0.27	4	0.90		4
UNITED KINGDOM	GBR	0.77	0.19	12	0.69	0.19	10	1.17	0.23	10	0.95	0.24	7	1.11		6
UNITED STATES	USA	0.47	0.20	11	0.21	0.20	9	1.30	0.23	9	1.18	0.24	7	1.06		6
URUGUAY	URY	0.49	0.22	9	0.86	0.21	8	1.04	0.27	7	0.60	0.27	4	0.85		4
UZBEKISTAN	UZB	-1.37	0.22	7	-1.02	0.23	6	-1.04	0.28	5	-0.27	0.30	4	0.07	0.34	3
VANUATU	VUT	0.53	0.41	2												
VENEZUELA	VEN	-1.10	0.19	12	-1.17	0.19	11	-0.44	0.23	8	-0.37	0.24	7	-0.6		6
VIETNAM	VNM	0.16	0.20	10	0.48	0.20	9	0.40	0.24	7	0.59	0.24	6	0.40	0.27	6
VIRGIN ISLANDS (U.S.)	VIR	0.68	0.55	1												
WEST BANK	WBG	-1.33	0.36	3	-1.81	0.37	2	-0.46	0.88	1	0.16	0.69	1			
YEMEN	YEM	-1.48	0.24	7	-1.40	0.24	6	-1.11	0.32	4	-1.35	0.31	3	-0.9		3
ZAMBIA	ZMB	-0.16	0.21	9	-0.02	0.22	7	-0.44	0.27	6	-0.21	0.26	6	-0.3	7 0.32	4
ZIMBABWE	ZWE	-1.86	0.22	8	-1.62	0.22	7	-1.21	0.27	6	-0.37	0.25	6	-0.1	0.30	5

			2004			2002			2000			1998			1996	
Country	Code	Est.	S.E.	N.	Est.	S.E.	N.	Est.	S.E.	N.	Est.	S.E.	N.	Est.	S.E.	N
FGHANISTAN	AFG	-1.24	0.20	6	-1.43	0.25	4	-1.30	0.43	1		J.E.			J.L.	
LBANIA	ALB	-0.36	0.17	8	-0.46	0.17	7	-0.75	0.43	6	-0.54	0.24	5	-0.31	0.21	
_GERIA	DZA	-0.46	0.16	11	-0.60	0.16	9	-0.75	0.20	6	-0.98	0.25	4	-0.77	0.24	
MERICAN SAMOA	ASM	0.02	0.39	1												
NDORRA	ADO	1.40	0.37	2	1.32	0.33	2									
NGOLA	AGO	-1.14	0.17	10	-1.20	0.16	9	-1.70	0.20	6	-1.63	0.20	6	-1.13	0.24	
NGUILLA	AIA	0.87	0.39	1												
NTIGUA AND BARBUDA	ATG	0.31	0.37	2	0.50	0.33	2									
RGENTINA	ARG	-0.33	0.15	13	-0.47	0.15	11	0.28	0.17	11	0.46	0.21	7	0.45	0.20	
RMENIA	ARM	-0.34	0.16	9	-0.39	0.17	8	-0.88	0.23	6	-0.46	0.24	5	-0.32	0.22	
RUBA	ABW	0.84	0.39	1												
JSTRALIA	AUS	1.95	0.17	10	1.93	0.16	9	1.80	0.19	7	1.84	0.25	6	1.96	0.22	
JSTRIA ZEDBALIANI	AUT	1.76	0.17	9	1.85	0.16	8	1.72	0.20	7	1.56	0.23	7	1.92	0.22	
ZERBAIJAN AHAMAS	AZE BHS	-0.81 1.27	0.14 0.32	12 3	-0.90 1.38	0.14 0.29	11 3	-0.96 1.20	0.18 0.53	8 1	-0.76 0.64	0.21 0.79	6 1	-1.05 0.71	0.19 0.58	
AHRAIN	BHR	0.76	0.32	8	0.81	0.29	7	0.74	0.33	4	0.40	0.79	3	0.71	0.38	;
ANGLADESH	BGD	-0.72	0.16	11	-0.55	0.17	10	-0.47	0.19	7	-0.38	0.25	4	-0.67	0.24	
ARBADOS	BRB	1.18	0.34	3	1.30	0.33	2									
ELARUS	BLR	-0.93	0.16	10	-1.04	0.16	8	-0.92	0.22	7	-0.83	0.24	5	-1.20	0.22	
ELGIUM	BEL	1.71	0.17	9	1.94	0.16	9	1.48	0.20	7	1.17	0.25	6	1.78	0.22	
ELIZE	BLZ	0.16	0.29	4	-0.04	0.27	3	-0.28	0.38	2	-0.56	0.39	1	-0.39	0.42	
ENIN	BEN	-0.39	0.19	8	-0.48	0.24	5	0.05	0.31	3	-0.18	0.34	2	0.01	0.42	
ERMUDA	BMU	1.39	0.39	1	1.13	0.34	1									
HUTAN	BTN	-0.14	0.28	5	0.43	0.24	4	1.48	0.34	2	0.22	0.39	1	0.33	0.42	
DLIVIA	BOL	-0.63	0.17	10	-0.53	0.16	8	-0.40	0.20	7	-0.11	0.22	6	-0.44	0.24	
OSNIA-HERZEGOVINA	BIH	-0.54	0.15	10	-0.85	0.17	8	-0.54	0.30	4	-0.81	0.29	2			
OTSWANA	BWA	0.83	0.14	13	0.91	0.16	10	0.98	0.20	7	0.52	0.22	5	0.33	0.24	
RAZIL	BRA	0.02	0.15	13	-0.20	0.15	11	-0.18	0.17	10	-0.10	0.20	8	-0.16	0.20	
RUNEI	BRN BGR	0.73 -0.08	0.32 0.14	3 12	0.90 -0.02	0.29	3 11	1.03	0.53 0.18	1 9	0.14 -0.94	0.79 0.21	1 6	1.27 -0.45	0.58 0.19	
JLGARIA JRKINA FASO	BFA	-0.06 -0.52	0.14	8	-0.02	0.14 0.24	5	-0.16 -0.14	0.18	4	-0.94	0.21	4	-0.45	0.19	
JRUNDI	BDI	-0.52	0.23	6	-1.48	0.24	4	-1.25	0.27	4	-1.02	0.20	1	-0.76	0.30	
AMBODIA	KHM	-0.87	0.25	6	-0.51	0.24	5	-0.44	0.33	3	-1.22	0.39	1	-0.58	0.42	
AMEROON	CMR	-0.64	0.18	9	-0.59	0.17	8	-0.44	0.21	7	-0.61	0.21	6	-1.04	0.24	
ANADA	CAN	1.96	0.17	10	2.02	0.16	10	1.94	0.19	9	2.16	0.23	7	1.92	0.22	
APE VERDE	CPV	-0.19	0.23	5	-0.10	0.26	4	0.33	0.36	2	0.36	0.39	1	-0.05	0.42	
AYMAN ISLANDS	CYM	1.39	0.39	1	1.95	0.34	1									
ENTRAL AFRICAN REPUBLIC	CAF	-1.65	0.23	6	-1.51	0.26	4	-1.06	0.36	2	-0.95	0.32	2	-0.82	0.42	
HAD	TCD	-1.29	0.19	8	-0.68	0.25	5	-0.36	0.36	2	-0.51	0.34	2	-0.58	0.42	
HILE	CHL	1.27	0.15	13	1.26	0.15	11	1.34	0.17	11	1.41	0.21	7	1.20	0.20	
HINA	CHN	0.11	0.15	12	0.20	0.15	11	0.22	0.17	10	0.17	0.21	7	0.18	0.20	
OLOMBIA	COL	-0.18	0.16	12	-0.40	0.15	10	-0.31	0.17	11	0.10	0.20	8	0.07	0.20	
OMOROS	COM	-1.45	0.27	4	-0.98	0.26	4	-1.29	0.36	2	-1.09	0.39	1	-0.63	0.42	
ONGO ongo, Dem. Rep. (Zaire)	COG ZAR	-1.17 -1.41	0.22 0.17	7 10	-1.33 -1.59	0.22 0.20	7 8	-1.66 -1.79	0.28 0.24	4 5	-0.78 -2.00	0.28 0.32	4 3	-1.24 -2.07	0.36 0.31	
OOK ISLANDS	COK	-0.19	0.17	2	-0.28	0.20	2	0.67	0.53	1						
OSTA RICA	CRI	0.49	0.03	11	0.45	0.44	9	0.76	0.33	7	 0.52	0.24	 5	 0.16	0.23	
ROATIA	HRV	0.32	0.14	11	0.43	0.14	10	0.15	0.13	7	0.32	0.22	5	-0.17	0.23	
JBA	CUB	-0.47	0.19	8	-0.27	0.18	7	-0.18	0.24	4	-0.48	0.31	3	-0.40	0.28	
YPRUS	CYP	1.02	0.19	7	1.02	0.18	6	1.06	0.26	3	1.35	0.31	3	1.32	0.28	
ZECH REPUBLIC	CZE	0.63	0.13	13	0.72	0.13	12	0.70	0.17	11	0.72	0.18	9	0.78	0.17	
ENMARK	DNK	2.15	0.17	10	2.05	0.16	9	1.84	0.19	8	2.13	0.25	6	2.04	0.22	
JIBOUTI	DJI	-0.76	0.27	4	-0.87	0.26	4	-1.07	0.36	2	-0.89	0.39	1	-1.11	0.42	
OMINICA	DMA	0.31	0.31	3	0.11	0.27	3	-0.67	0.41	1	-0.89	0.39	1	-0.88	0.42	
OMINICAN REPUBLIC	DOM	-0.46	0.17	10	-0.42	0.16	8	-0.11	0.20	7	-0.73	0.27	3	-0.29	0.26	
CUADOR	ECU	-0.85	0.16	11	-0.94	0.16	9	-1.05	0.18	9	-0.76	0.22	6	-0.65	0.22	
GYPT	EGY	-0.20	0.15	12	-0.29	0.15	11	0.30	0.17	10	-0.03	0.20	7	-0.34	0.21	
SALVADOR	SLV	-0.22	0.18	9	-0.50	0.17	7	-0.11	0.21	6	-0.04	0.27	3	-0.38	0.25	
QUATORIAL GUINEA	GNQ	-1.40	0.26	5	-1.42	0.25	5	-2.22	0.36	2	-1.67	0.39	1	-1.55	0.42	
RITREA	ERI	-1.05	0.22	7	-0.52	0.24	5	-0.28	0.36	2	0.36	0.39	1	-0.43	0.42	
Stonia Fhiopia	EST ETH	0.99 -0.96	0.14 0.16	13 11	0.85 -0.78	0.13 0.22	12 7	1.00 -0.60	0.17 0.27	10 5	0.45 0.02	0.21 0.26	6 4	0.61 -0.41	0.19 0.36	
JI	FJI	-0.57	0.10	4	0.13	0.25	4	-0.34	0.27	2	-0.02	0.20	2	-0.41	0.30	
NLAND	FIN	2.06	0.27	9	2.13	0.25	9	1.89	0.19	8	2.02	0.25	6	1.89	0.42	
RANCE	FRA	1.42	0.17	10	1.69	0.16	10	1.42	0.19	8	1.64	0.23	7	1.75	0.22	
RENCH GUIANA	GUF	0.68	0.39	1	0.86	0.10	1									
ABON	GAB	-0.53	0.17	9	-0.42	0.17	8	-0.59	0.20	6	 -0.79	0.27	3	-0.99	0.26	
AMBIA	GMB	-0.49	0.18	8	-0.82	0.22	6	0.17	0.31	3	-0.20	0.37	2	-0.10	0.36	
EORGIA	GEO	-0.80	0.15	10	-0.77	0.17	8	-0.72	0.23	6	-0.40	0.25	4	-0.35	0.22	
ERMANY	DEU	1.38	0.17	10	1.83	0.16	10	1.90	0.19	8	1.78	0.23	7	1.91	0.22	

			2004			2002			2000			1998			1996	
Country	Code	Est.	S.E.	N.	Est.	S.E.	N.	Est.	S.E.	N.	Est.	S.E.	N.	Est.	S.E.	1
SHANA	GHA	-0.17	0.14	13	0.00	0.16	9	0.09	0.21	7	-0.13	0.20	7	-0.07	0.24	
GREECE	GRC	0.74	0.17	9	0.80	0.16	9	0.77	0.20	7	0.78	0.25	6	0.76	0.22	
GRENADA	GRD	0.10	0.31	3	0.36	0.27	3	0.03	0.41	1	-0.23	0.39	1	-0.48	0.42	
GUAM	GUM	0.41	0.39	1												
GUATEMALA	GTM	-0.87	0.17	10	-0.58	0.17	8	-0.50	0.20	7 3	-0.23	0.27	3	-0.56	0.25	
GUINEA GUINEA-BISSAU	GIN GNB	-0.93 -1.25	0.22 0.23	7 6	-0.76 -1.39	0.23 0.22	6 6	-0.07 -1.43	0.31 0.28	3 4	-0.36 -0.37	0.33 0.33	3 3	-1.21 -0.87	0.36 0.36	
GUYANA	GUY	-0.20	0.26	5	-0.30	0.25	4	-0.16	0.30	3	-0.14	0.37	2	-0.28	0.36	
IAITI	HTI	-1.90	0.22	7	-1.56	0.21	6	-1.47	0.29	4	-1.20	0.37	2	-1.42	0.36	
IONDURAS	HND	-0.68	0.17	10	-0.73	0.17	8	-0.45	0.21	6	-0.29	0.27	3	-0.98	0.25	
IONG KONG	HKG	1.49	0.19	8	1.44	0.17	8	1.27	0.21	7	1.61	0.24	6	1.78	0.24	
IUNGARY	HUN	0.68	0.13	14	0.79	0.13	13	0.78	0.16	12	0.78	0.18	9	0.60	0.17	
CELAND	ISL	2.18	0.24	6	2.05	0.24	5	2.18	0.33	4	1.87	0.41	3	1.48	0.37	
NDIA	IND	-0.04	0.15	12	-0.11	0.15	11	-0.07	0.17	10	-0.14	0.20	8	-0.14	0.20	
NDONESIA	IDN IRN	-0.36	0.15	13	-0.55	0.14	12 9	-0.40	0.16 0.22	11 5	-0.52 -0.31	0.21 0.28	7 4	0.18	0.20 0.25	
RAN RAQ	IRQ	-0.66 -1.51	0.17 0.20	10 7	-0.46 -1.69	0.16 0.19	6	-0.17 -1.49	0.22	4	-0.31	0.26	3	-0.30 -1.39	0.23	
RELAND	IRL	1.48	0.20	10	1.67	0.16	9	2.03	0.19	8	1.73	0.23	7	1.80	0.22	
SRAEL	ISR	0.98	0.17	9	1.08	0.16	9	1.02	0.20	7	0.93	0.26	5	1.32	0.22	
ΓALY	ITA	0.58	0.17	9	0.96	0.16	9	0.80	0.18	10	1.05	0.23	7	0.88	0.22	
ORY COAST	CIV	-1.30	0.17	10	-0.89	0.16	9	-0.75	0.21	6	-0.12	0.21	6	-0.11	0.24	
AMAICA	JAM	0.13	0.19	8	-0.04	0.17	7	-0.19	0.23	4	-0.54	0.25	4	-0.41	0.26	
APAN	JPN	1.21	0.17	10	1.11	0.16	10	1.08	0.19	9	1.13	0.31	5	1.36	0.22	
ORDAN	JOR	0.23	0.17	10	0.39	0.16	8	0.40	0.19	6	0.57	0.22	6	0.18	0.23	
(AZAKHSTAN	KAZ KEN	-0.63 -0.81	0.14	12	-0.82 -0.81	0.14 0.16	11 9	-0.54 -0.68	0.18	9 8	-0.72 -0.85	0.20 0.20	7 7	-0.83 -0.60	0.18 0.24	
(ENYA (IRIBATI	KIR	-0.61	0.14 0.29	13 4	-0.81	0.16	3	0.05	0.19 0.34	2	-0.85	0.20	1	-0.80	0.42	
OREA, NORTH	PRK	-1.68	0.23	6	-1.79	0.33	4	-1.10	0.40	2	-0.12	0.79	1	-1.30	0.58	
OREA, SOUTH	KOR	0.95	0.15	12	0.91	0.15	11	0.63	0.17	10	0.50	0.20	8	0.64	0.22	
UWAIT	KWT	0.55	0.20	7	0.15	0.17	8	0.21	0.26	3	-0.01	0.31	3	0.32	0.28	
YRGYZ REPUBLIC	KGZ	-0.83	0.16	10	-0.72	0.16	9	-0.63	0.23	5	-0.28	0.25	4	-0.43	0.22	
AOS	LAO	-1.02	0.25	6	-0.50	0.24	5	-0.76	0.30	3	-0.30	0.39	1	-0.04	0.42	
ATVIA	LVA	0.60	0.14	11	0.70	0.14	10	0.36	0.19	7	0.19	0.21	6	0.04	0.19	
EBANON ESOTUO	LBN	-0.33	0.19	8	-0.40	0.16	8	-0.22	0.21	5	0.18	0.25	4	-0.18	0.24	
.ESOTHO .IBERIA	LSO LBR	-0.33 -1.86	0.18 0.25	8 5	-0.23 -1.58	0.23 0.25	5 5	-0.05 -1.41	0.36 0.28	2 4	-0.23 -1.86	0.26 0.37	3 2	0.17 -2.19	0.42 0.36	
IBYA	LBY	-0.73	0.20	7	-0.90	0.25	6	-1.41	0.26	3	-1.49	0.31	3	-0.98	0.36	
LIECHTENSTEIN	LIE	1.48	0.37	2	1.67	0.33	2									
ITHUANIA	LTU	0.70	0.14	12	0.65	0.14	11	0.36	0.17	10	0.18	0.21	6	0.06	0.19	
UXEMBOURG	LUX	2.08	0.24	6	2.30	0.26	5	2.10	0.41	3	2.11	0.41	3	2.34	0.37	
MACAO	MAC	1.00	0.39	1	0.86	0.34	1									
MACEDONIA	MKD	-0.17	0.15	10	-0.37	0.15	7	-0.52	0.24	4	-0.43	0.22	4	-0.19	0.20	
MADAGASCAR	MDG	-0.43	0.20	8	-0.42	0.24	5	-0.32	0.27	5	-0.45	0.28	4	-0.64	0.36	
MALAWI MALAYSIA	MWI MYS	-0.81 0.99	0.15 0.15	11 12	-0.63 0.96	0.18 0.15	7 11	-0.65 0.69	0.22 0.17	6 10	-0.54 0.78	0.21 0.20	6 8	-0.69 1.07	0.26 0.20	
MALDIVES	MDV	0.99	0.13	4	0.52	0.13	4	0.69	0.17	2	0.76	0.20	1	-0.06	0.20	
MALI	MLI	-0.29	0.16	11		0.22	7	-0.81		4	-0.13		3	-0.85		
MALTA	MLT	1.03	0.25	5	1.20	0.29	3	0.86	0.53	1	0.89	0.79	1	1.27	0.58	
MARSHALL ISLANDS	MHL	-0.46	0.41	3	-0.22	0.33	3	-0.79	0.34	2	-0.56	0.39	1			
MARTINIQUE	MTQ	0.84	0.39	1	0.86	0.34	1									
MAURITANIA	MRT	0.22	0.26	5	-0.01	0.26	4	-0.30	0.31	3	-0.17	0.39	1	0.25	0.42	
MAURITIUS	MUS	0.60	0.18	7	0.51	0.18	6	0.79	0.22	5	0.35	0.22	4	0.70	0.28	
MEXICO	MEX	-0.02	0.15	13	0.21	0.15	11	0.35	0.17	11	0.24	0.20	8	-0.12	0.20	
MICRONESIA	FSM MDA	-0.33 -0.73	0.29	4 10	-0.29	0.33	3 8	-0.55	0.34	2 7	-0.50	0.39	1 6	 -0.48	 0 10	
MOLDOVA MONACO	MDA MCO	-0.73 1.42	0.15 0.82	10 1	-0.60 -0.61	0.15 0.83	8 1	-1.04	0.19	,	-0.49	0.21	o	-0.48	0.19	
MONGOLIA	MNG	-0.46	0.82	8	-0.01	0.83	6	 0.15	 0.27	4	0.02	0.28	3	 -0.27	0.36	
MOROCCO	MAR	-0.03	0.16	11	0.06	0.16	10	0.02	0.21	5	0.30	0.20	7	-0.06	0.22	
OZAMBIQUE	MOZ	-0.39	0.15	12	-0.35	0.22	7	-0.31	0.28	4	-0.21	0.24	5		0.36	
1YANMAR	MMR	-1.57	0.19	8	-1.33	0.18	7	-1.31	0.24	4	-1.64	0.31	3	-0.99	0.28	
IAMIBIA	NAM	0.29	0.14	13	0.10	0.16	10	0.48	0.22	6	0.17	0.22	5	0.44	0.26	
IAURU	NRU	-1.36	0.82	1	-1.17		1									
NEPAL	NPL	-0.90	0.19	8	-0.45	0.22	6	-0.62	0.30	3	-1.02	0.39	1	-0.38	0.42	
NETHERLANDS	NLD	2.00	0.17	9	2.20	0.16	9	2.08	0.19	8	2.53	0.25	6	2.32	0.22	
IETHERLANDS ANTILLES IEW ZEALAND	ANT NZL	0.82 2.05	0.39 0.19	1 8	 2.01	 0.17	 7	 1.45	 0.21	6	1.96	0.26	 5	 2.31	 0.24	
IICARAGUA	NIC	-0.71	0.19	10	-0.85	0.17	8	-0.71	0.21	6	-0.53	0.20	3	-0.46	0.24	
NIGER	NER	-0.87	0.17	7	-0.84	0.17	5	-1.04	0.21	4	-0.90	0.37	2	-0.82	0.23	
NIGERIA	NGA	-1.02	0.14	13	-1.11	0.16	10	-1.04	0.18	9	-1.33	0.20	7	-1.22	0.22	
NIUE	NIU	-0.12	0.82	1	-0.75	0.83	1									

			2004			2002			2000			1998			1996	
Country	Code	Est.	S.E.	N.	Est.	S.E.	N.	Est.	S.E.	N.	Est.	S.E.	N.	Est.	S.E.	١
IORWAY	NOR	1.97	0.17	9	1.90	0.16	8	1.55	0.20	7	2.08	0.25	6	2.18	0.22	-
OMAN	OMN	0.91	0.20	7	0.67	0.17	8	0.99	0.24	4	1.21	0.31	3	0.79	0.28	:
PALAU	PCI	0.39	0.82	1	-0.33	0.83	1									
PAKISTAN	PAK	-0.57	0.16	11	-0.53	0.16	9	-0.54	0.19	8	-0.69	0.22	6	-0.40	0.22	
Panama Papua New Guinea	PAN PNG	0.01	0.17 0.17	10 10	-0.11 -0.77	0.16 0.16	9 8	-0.03 -0.68	0.19	7 6	0.01 -0.62	0.25 0.27	4 3	-0.55 -0.41	0.24	
PARAGUAY	PRY	-1.01 -1.07	0.17	10	-0.77 -1.25	0.16	8	-0.68	0.20 0.23	5	-0.62	0.27	3 4	-0.41	0.26 0.26	
PERU	PER	-0.58	0.17	12	-0.46	0.17	10	-0.27	0.23	10	0.30	0.23	7	-0.09	0.20	
PHILIPPINES	PHL	-0.23	0.15	12	-0.40	0.15	11	0.08	0.10	10	0.30	0.21	7	0.19	0.21	
POLAND	POL	0.47	0.13	14	0.64	0.13	13	0.38	0.16	12	0.86	0.18	9	0.63	0.17	
PORTUGAL	PRT	0.92	0.17	9	1.05	0.16	8	1.06	0.20	7	1.49	0.23	7	1.11	0.22	
PUERTO RICO	PRI	1.05	0.28	3	1.21	0.28	2	1.58	0.43	1	1.61	0.53	1	1.57	0.49	
QATAR	QAT	0.87	0.21	6	0.75	0.18	6	0.96	0.24	4	0.69	0.31	3	0.71	0.28	
REUNION	REU	1.03	0.39	1												
ROMANIA	ROM	-0.15	0.14	13	-0.30	0.14	11	-0.59	0.17	10	-0.61	0.22	5	-0.55	0.19	
RUSSIA	RUS	-0.21	0.13	14	-0.40	0.13	13	-0.62	0.16	12	-0.62	0.18	9	-0.50	0.17	
RWANDA	RWA	-0.56	0.22	6	-0.72	0.24	5	-0.11	0.36	2	-0.69	0.39	1	-1.26	0.42	
SAMOA	SAM	0.09	0.29	4	0.08	0.24	4	0.58	0.34	2	-0.06	0.39	1	-0.27	0.42	
SAN MARINO	SMR	-0.23	0.82	1	-0.33	0.83	1									
SAO TOME AND PRINCIPE	STP	-0.89	0.27	4	-0.68	0.26	4	-0.70	0.36	2	-0.82	0.39	1	-0.55	0.42	
SAUDI ARABIA	SAU	-0.06	0.17	9	-0.08	0.16	9	0.06	0.22	5	-0.29	0.28	4	-0.09	0.25	
SENEGAL	SEN	-0.13	0.16	11	-0.11	0.17	8	0.23	0.22	6	0.15	0.23	5	-0.40	0.26	;
SERBIA AND MONTENEGRO SEYCHELLES	YUG SYC	-0.21 -0.31	0.14 0.26	11 5	-0.69 -0.22	0.14 0.26	9 4	-1.00 -0.94	0.25 0.36	3 2	-1.02 -0.56	0.28 0.39	3 1	-0.60 -0.58	0.32 0.42	
SIERRA LEONE	SLE	-0.31 -1.32	0.26	5 7	-0.22 -1.48	0.26	6	-0.94 -1.39	0.36	4	-0.56 -0.50	0.39	2	-0.58 -0.24	0.42	
SINGAPORE	SGP	2.25	0.21	10	2.39	0.22	9	2.44	0.28	9	-0.50 2.59	0.37	7	-0.24 2.51	0.36	
SLOVAK REPUBLIC	SVK	0.67	0.17	12	0.43	0.10	10	0.28	0.13	9	0.08	0.20	7	0.28	0.22	
SLOVENIA	SVN	1.02	0.14	13	0.89	0.13	12	0.82	0.17	9	0.68	0.22	5	0.61	0.19	
SOLOMON ISLANDS	SLB	-1.76	0.29	4	-0.92	0.33	3	-1.04	0.34	2	-0.82	0.39	1	-1.06	0.42	
SOMALIA	SOM	-2.32	0.25	5	-1.98	0.26	4	-2.59	0.30	3	-2.15	0.37	2	-2.19	0.36	
SOUTH AFRICA	ZAF	0.74	0.13	15	0.59	0.15	12	0.43	0.17	12	0.17	0.18	9	0.33	0.20	
SPAIN	ESP	1.29	0.17	10	1.58	0.16	10	1.78	0.19	9	2.05	0.23	7	1.59	0.22	
SRI LANKA	LKA	-0.27	0.16	11	0.01	0.15	10	-0.32	0.19	7	-0.42	0.25	4	-0.30	0.24	
ST. KITTS AND NEVIS	KNA	-0.16	0.31	3	-0.26	0.42	2	0.11	0.41	1	-0.23	0.39	1	-0.24	0.42	
ST. LUCIA	LCA	0.19	0.31	3	0.01	0.42	2	0.16	0.41	1	-0.17	0.39	1	0.36	0.42	
ST. VINCENT AND THE GRENADINES		0.23	0.31	3	-0.19	0.42	2	-0.01	0.41	1	-0.23	0.39	1	-0.27	0.42	
SUDAN	SDN	-1.28	0.17	10	-1.09	0.16	9	-1.46	0.20	6	-1.68	0.27	3	-1.53	0.26	
SURINAME	SUR	-0.23	0.30	4	-0.22	0.29	3	0.17	0.53	1	-0.12	0.79	1	-0.36	0.58	
SWAZILAND	SWZ	-0.60	0.20	7	-0.40	0.23	5	-0.55	0.36	2	-0.53	0.26	3	-0.45	0.42	
SWEDEN	SWE	1.92	0.17	10	1.91	0.16	9	1.72	0.19	9	1.97	0.25	6	1.98	0.22	(
SWITZERLAND	CHE	2.25	0.17	9	2.34	0.16	8	2.18	0.19	8	2.47	0.23	7	2.43	0.22	
SYRIA	SYR TWN	-0.72	0.19	8 11	-0.58	0.18	7 10	-0.83	0.24	4 9	-1.36 1.69	0.31 0.25	3 6	-0.43 1.42	0.28	:
ΓAIWAN ΓAJIKISTAN	TJK	1.15 -1.05	0.16 0.16	10	1.12 -1.13	0.16 0.16	9	1.06 -1.39	0.19 0.22	9 5	-1.37	0.25	3	-1.47	0.22 0.22	;
TANZANIA	TZA	-0.37	0.10	13	-0.50	0.16	9	-0.28	0.22	7	-0.39	0.20	7	-1.47	0.24	Ì
THAILAND	THA	0.38	0.15	12	0.29	0.15	11	0.20	0.18	10	0.12	0.20	8	0.47	0.20	
TIMOR, EAST	TMP	-1.21	0.13	2	-0.93	0.13	2	0.20			0.12	0.20				
TOGO	TGO	-1.31	0.22	7	-1.16		5	-1.40		3	-0.44		3	-0.66	0.36	
ΓONGA	TON	-0.73	0.29	4	-0.46	0.33	3	-0.47	0.34	2	-0.43	0.39	1	-0.19	0.42	
FRINIDAD AND TOBAGO	TTO	0.47	0.20	7	0.50	0.18	6	0.64	0.22	5	0.54	0.27	3	0.09	0.26	;
TUNISIA	TUN	0.57	0.16	11	0.67	0.16	10	1.24	0.20	7	0.86	0.20	6	0.49	0.24	
TURKEY	TUR	0.01	0.15	13	-0.16	0.15	12	-0.07	0.17	11	-0.31	0.20	8	0.01	0.20	
FURKMENISTAN	TKM	-1.37	0.17	7	-1.50	0.17	6	-1.38	0.26	3	-1.41	0.26	3	-1.36	0.22	
ΓUVALU	TUV	-0.79	0.35	3	-0.26	0.44	2	1.29	0.53	1						
JGANDA	UGA	-0.43	0.14	13	-0.38	0.16	9	-0.16	0.20	7	-0.11	0.20	7	-0.37	0.24	
JKRAINE	UKR	-0.67	0.13	13	-0.76	0.13	12	-0.78	0.18	9	-0.97	0.19	8	-0.61	0.18	-
JNITED ARAB EMIRATES	ARE	1.20	0.19	7	0.83	0.17	7	0.72	0.26	3	0.27	0.31	3	0.68	0.28	;
JNITED KINGDOM	GBR	1.85	0.17	10	2.08	0.16	10	2.01	0.18	10	2.47	0.23	7	2.08	0.22	
JNITED STATES	USA	1.80	0.17	9	1.73	0.16	9	1.80	0.19	9	1.74	0.23	7	2.02	0.22	
JRUGUAY	URY	0.52	0.17	10	0.52	0.16	8	0.71	0.19	8	0.67	0.25	4	0.61	0.24	•
JZBEKISTAN (ANIIIATI)	UZB	-1.04	0.15	11	-1.04	0.14	10	-0.96	0.19	7	-1.33	0.21	5	-0.89	0.19	•
/ANUATU	VUT	-0.60	0.29	4	-0.28	0.33	3	-0.47	0.34	2	-0.43	0.39	1	-0.23	0.42	
/ENEZUELA	VEN	-0.96	0.15	13	-1.13	0.15	11	-0.83	0.18	9	-0.89	0.20	8	-0.72	0.20	
VIETNAM	VID	-0.31	0.15	12	-0.29	0.15	11	-0.30	0.18	8	-0.17		6	-0.10	0.21	
/IRGIN ISLANDS (U.S.)	VIR	0.77	0.39	1	1.00				 0.70		 0.01	 0.56				
WEST BANK YEMEN	WBG YEM	-1.05 -0.84	0.35 0.19	2 8	-1.00 -0.84	0.32 0.18	2 7	0.47 -0.68	0.70 0.23	1 4	0.01 -0.47	0.56 0.27	1 3	 -0.59	 0.26	:
YEMEN ZAMBIA	ZMB	-0.84 -0.84	0.19	13	-0.84 -0.77	0.18	9	-0.68	0.23	7	-0.47	0.27	3 7	-0.59 -0.86	0.26	
ZIMBABWE	ZWE	-0.84 -1.20	0.14	11	-0.77 -0.82	0.16	9	-0.72		7		0.20	7	-0.86	0.24	,
	∠٧٧⊏	-1.20	0.10	1.1	-0.02	0.10	J	-1.13	0.19	1	-1.00	0.20	1	-0.20	0.23	

			2004			2002			2000			1998			1996	
Country	Code	Est.	S.E.	N.	Est.	S.E.	N.	Est.	S.E.	N.	Est.	S.E.	N.	Est.	S.E.	N
AFGHANISTAN	AFG	-2.05	0.26	4	-1.80	0.29	2	-3.64	0.46	1						
ALBANIA	ALB	-0.08	0.22	8	-0.36	0.20	7	-0.06	0.29	6	-0.58	0.24	6	0.16	0.31	5
LGERIA	DZA	-0.93	0.18	10	-0.58	0.18	8	-0.76	0.26	5	-1.20	0.33	4	-0.68	0.27	5
MERICAN SAMOA	ASM	0.62	0.62	1												
NDORRA	ADO	1.32	0.62	1	1.44	0.30	1									
NGOLA	AGO	-1.40	0.20	9	-1.37	0.19	7	-1.79	0.26	5	-1.19	0.26	5	-1.60	0.27	5
NGUILLA	AIA	0.96	0.62	1												
NTIGUA AND BARBUDA	ATG	0.73	0.62	1	0.71	0.30	1									
RGENTINA	ARG	-0.81	0.18	10	-0.81	0.17	9	0.45	0.24	8	0.87	0.21	6	0.82	0.21	7
RMENIA	ARM	0.05	0.21	9	0.11	0.20	8	-0.39	0.29	6	-0.47	0.24	6	-0.74	0.33	4
ARUBA	ABW	0.93	0.62	1												
AUSTRALIA	AUS	1.62	0.21	8	1.64	0.18	7	1.51	0.29	5	1.28	0.23	5	1.38	0.22	6
USTRIA	AUT	1.41	0.21	8	1.67	0.18	7	1.53	0.29	5	1.21	0.23	6	1.51	0.22	6
ZERBAIJAN	AZE	-0.57	0.18	11	-0.87	0.17	10	-0.51	0.26	7	-1.10	0.24	6	-1.21	0.26	5
BAHAMAS	BHS	0.78	0.32	3	1.35	0.25	3	0.95	0.54	2	1.17	0.52	2	0.68	0.49	2
BAHRAIN	BHR	0.71	0.20	8	0.98	0.19	7	1.02	0.37	3	1.01	0.40	3	0.61	0.29	4
BANGLADESH	BGD	-1.15	0.19	10	-1.05	0.18	9	-0.16	0.27	6	-0.08	0.33	4	-0.54	0.27	5
BARBADOS	BRB	0.91	0.35	3	1.14	0.27	2	0.53	0.64	1	0.84	0.60	1	0.36	0.54	1
BELARUS	BLR	-1.78	0.21	9	-1.66	0.20	7	-2.70	0.31	5	-2.01	0.24	6	-1.08	0.33	4
BELGIUM	BEL	1.25	0.21	8	1.47	0.18	8	0.76	0.28	6	1.07	0.23	5	1.32	0.22	6
BELIZE	BLZ	0.32	0.31	4	0.14	0.25	3	-0.17	0.41	3	0.17	0.42	2	0.12	0.43	2
BENIN	BEN	-0.49	0.24	7	-0.48	0.24	4	-0.04	0.31	3	-0.07	0.42	3	0.16	0.43	2
BERMUDA	BMU	0.98	0.62	1	1.44	0.30	1					 0 E1			 0.50	
BHUTAN	BTN	0.00	0.39	4	-0.38	0.26	3	0.25	0.37	2	-0.18	0.51	1	0.08	0.59	1
BOLIVIA	BOL	0.05	0.19	9	-0.12	0.18	8	0.67	0.29	6	0.90	0.33	5	0.82	0.27	1
BOSNIA-HERZEGOVINA	BIH	-0.66	0.22	9 11	-0.90	0.21	7	-0.73	0.38 0.26	4 6	-1.30	0.27	3	-2.09	0.60	
BOTSWANA	BWA	0.96	0.18		0.79	0.18	9 9	0.79			0.69	0.26	5	0.69	0.27	5
BRAZIL BRUNEI	BRA BRN	0.19 1.08	0.18 0.43	10 2	0.24 1.05	0.17 0.27	2	0.37 0.28	0.24 0.71	8 1	0.29 -0.06	0.21 0.72	7 1	0.21 2.58	0.21 0.75	1
BULGARIA	BGR	0.60	0.43	11	0.62	0.27	10	0.20	0.71	7	0.47	0.72	6	-0.08	0.75	6
BURKINA FASO	BFA	-0.26	0.18	8	-0.17	0.17	5	0.22	0.20	4	-0.23	0.24	4	-0.08	0.40	3
BURUNDI	BDI	-1.35	0.22	5	-1.29	0.25	3	-0.86	0.29	4	-1.27	0.42	2	-1.31	0.59	1
CAMBODIA	KHM	-0.25	0.26	6	-0.44	0.24	5	-0.07	0.23	4	-0.22	0.42	2	-0.29	0.59	1
CAMEROON	CMR	-0.71	0.19	9	-0.77	0.18	8	0.00	0.26	6	-0.15	0.26	6	-0.82	0.27	5
CANADA	CAN	1.57	0.21	8	1.65	0.18	8	1.38	0.29	6	1.17	0.23	6	1.37	0.22	6
CAPE VERDE	CPV	0.27	0.30	4	-0.25	0.24	4	-0.07	0.31	3	-0.57	0.42	2	-0.56	0.43	2
CAYMAN ISLANDS	CYM	0.96	0.62	1	1.44	0.30	1						-			-
CENTRAL AFRICAN REPUBL		-1.28	0.25	6	-0.85	0.24	4	-0.65	0.33	2	-0.57	0.51	1	-0.29	0.59	1
CHAD	TCD	-0.84	0.23	8	-0.96	0.23	5	-0.28	0.31	3	-0.67	0.42	3	0.01	0.59	1
CHILE	CHL	1.62	0.18	10	1.48	0.17	9	1.38	0.24	8	1.22	0.21	6	1.52	0.21	7
CHINA	CHN	-0.45	0.18	10	-0.43	0.17	9	-0.21	0.24	8	-0.07	0.21	6	-0.06	0.21	7
COLOMBIA	COL	-0.12	0.18	10	-0.07	0.17	9	0.12	0.24	8	0.51	0.21	7	0.49	0.21	7
COMOROS	COM	-1.06	0.38	3	-1.01	0.25	3	-0.90	0.33	2	-0.70	0.51	1	-0.72	0.59	1
CONGO	COG	-1.16	0.26	6	-1.06	0.21	6	-1.03	0.29	4	-0.96	0.39	4	-0.70	0.40	3
Congo, Dem. Rep. (Zaire)	ZAR	-1.80	0.21	8	-1.64	0.22	6	-2.65	0.26	5	-2.78	0.33	4	-2.38	0.35	2
COOK ISLANDS	COK	0.21	0.82	1	-0.04	0.69	1	0.01	0.50	1						
COSTA RICA	CRI	0.67	0.19	9	0.78	0.18	8	0.92	0.29	6	1.00	0.33	5	0.68	0.24	6
CROATIA	HRV	0.19	0.18	11	0.19	0.17	10	0.31	0.29	6	0.34	0.24	5	-0.08	0.26	5
CUBA	CUB	-1.81	0.21	7	-1.19	0.19	6	-1.50	0.37	3	-1.06	0.40	3	-0.77	0.29	4
CYPRUS	CYP	1.23	0.22	6	1.23	0.20	5	1.08	0.37	3	1.13	0.40	3	0.78	0.29	4
ZECH REPUBLIC	CZE	0.97	0.17	12	1.12	0.16	11	0.67	0.24	9	0.78	0.18	8	1.18	0.20	8
DENMARK	DNK	1.76	0.21	8	1.74	0.18	7	1.41	0.29	5	1.40	0.23	5	1.64	0.22	6
JIBOUTI	DJI	-0.76	0.30	4	-0.65	0.24	4	-0.66	0.31	3	-0.79	0.42	2	0.01	0.59	1
OOMINICA	DMA	0.53	0.45	2	0.77	0.27	2	-0.13	0.48	1	-0.57	0.51	1	-0.21	0.59	1
OOMINICAN REPUBLIC	DOM	-0.28	0.19	9	-0.13	0.18	8	0.52	0.29	6	0.23	0.39	3	0.14	0.29	4
CUADOR	ECU	-0.60	0.19	9	-0.58	0.18	8	-0.19	0.27	7	0.19	0.33	5	-0.05	0.27	5
GYPT	EGY	-0.58	0.18	10	-0.46	0.18	9	0.01	0.23	8	0.16	0.22	6	-0.14	0.24	6
EL SALVADOR	SLV	0.56	0.20	8	0.07	0.19	7	1.15	0.34	5	1.42	0.39	3	0.73	0.26	5
QUATORIAL GUINEA	GNQ	-0.78	0.28	5	-1.41	0.23	5	-1.31	0.31	3	-2.11	0.42	2	-0.95	0.59	1
ERITREA	ERI	-1.29	0.29	5	-1.08	0.25	3	-0.40	0.33	2	0.08	0.51	1	-0.14	0.59	1
STONIA	EST	1.61	0.17	12	1.41	0.16	11	1.33	0.25	8	1.06	0.24	6	1.41	0.26	5
THIOPIA	ETH	-1.19	0.18	10	-0.99	0.21	6	-0.62	0.29	5	-0.14	0.29	4	-0.72	0.40	3
FIJI	FJI	-0.36	0.33	3	-0.09	0.25	3	-0.81	0.41	2	-0.61	0.42	3	-0.51	0.43	2
FINLAND	FIN	1.79	0.21	8	1.96	0.18	8	1.81	0.29	5	1.51	0.23	5	1.50	0.22	6
FRANCE	FRA	0.91	0.21	8	1.22	0.18	8	0.78	0.29	6	0.97	0.23	6	1.18	0.22	6
FRENCH GUIANA	GUF	0.19	0.62	1	0.95	0.30	1									
GABON	GAB	-0.46	0.19	9	-0.21	0.18	8	-0.29	0.26	5	0.10	0.39	3	-0.51	0.29	4
GAMBIA	GMB	-0.15	0.24	7	-0.54	0.22	5	-0.01	0.29	4	-0.34	0.39	3	-1.28	0.52	2

			2004			2002			2000			1998			1996	
Country	Code	Est.	S.E.	N.	Est.	S.E.	N.	Est.	S.E.	N.	Est.	S.E.	N.	Est.	S.E.	N
SEORGIA	GEO	-0.64	0.22	9	-0.80	0.21	7	-0.56	0.31	5	-0.79	0.25	5	-0.84	0.33	4
SERMANY	DEU	1.29	0.21	8	1.57	0.18	8	1.38	0.29	6	1.19	0.23	6	1.54	0.22	(
SHANA	GHA	-0.28	0.18	11	-0.23	0.18	8	0.11	0.26	6	0.21	0.26	6	-0.14	0.27	
REECE	GRC	0.85	0.21	8	1.12	0.18	8	0.93	0.27	6	0.83	0.23	5	0.80	0.22	(
GRENADA	GRD	0.37	0.45	2	0.41	0.27	2	0.28	0.48	1	0.21	0.51	1	-0.14	0.59	
GUAM GUATEMALA	GUM GTM	0.57 -0.07	0.62 0.20	1 8	-0.08	 0.19	 7	0.46	0.32	6	0.85	0.39	3	0.03	0.26	
GUINEA	GIN	-0.94	0.23	7	-0.75	0.13	6	-0.09	0.29	4	0.03	0.39	4	0.03	0.40	;
GUINEA-BISSAU	GNB	-0.86	0.27	5	-0.93	0.22	5	-1.09	0.29	4	-1.30	0.39	4	-0.06	0.52	
GUYANA	GUY	-0.14	0.27	5	-0.37	0.23	4	-0.04	0.38	3	0.31	0.39	3	0.22	0.40	;
IAITI	HTI	-1.11	0.25	6	-0.94	0.22	5	-1.15	0.38	4	-0.99	0.39	3	-1.23	0.40	;
IONDURAS	HND	-0.33	0.20	8	-0.34	0.19	7	0.32	0.34	5	0.58	0.39	3	-0.29	0.26	
IONG KONG	HKG	1.89	0.21	8	1.45	0.18	8	1.83	0.27	6	1.60	0.23	6	2.07	0.22	
IUNGARY	HUN	1.22	0.17	12	1.19	0.16	11	1.12	0.24	9	1.15	0.18	8	0.60	0.20	
CELAND	ISL	1.82	0.26	6	1.55	0.22	5	1.39	0.35	4	0.84	0.25	4	0.53	0.31	
NDIA	IND	-0.59	0.18	10	-0.35	0.17	9	-0.17	0.24	8 9	-0.08	0.21	7	-0.09	0.21	
NDONESIA RAN	IDN IRN	-0.42 -1.33	0.18 0.20	11 8	-0.67 -1.23	0.17 0.19	10 7	-0.34 -1.29	0.23 0.37	3	0.10 -1.56	0.21 0.40	6 3	0.27 -1.62	0.21 0.29	-
RAQ	IRQ	-1.79	0.20	6	-2.26	0.19	6	-3.43	0.37	3	-3.99	0.40	3	-2.26	0.29	2
RELAND	IRL	1.63	0.23	8	1.63	0.18	7	1.70	0.29	5	1.54	0.40	6	1.58	0.29	6
SRAEL	ISR	0.69	0.21	8	1.01	0.18	8	0.95	0.27	6	0.73	0.23	5	1.24	0.22	(
ΓALY	ITA	0.97	0.21	8	1.13	0.18	8	0.78	0.27	7	0.81	0.23	6	0.86	0.22	(
ORY COAST	CIV	-0.83	0.19	9	-0.38	0.18	8	-0.32	0.26	6	0.18	0.26	6	-0.15	0.27	;
AMAICA	JAM	0.15	0.20	8	0.30	0.19	7	0.41	0.35	4	0.63	0.39	4	0.54	0.29	4
APAN	JPN	1.04	0.21	8	0.98	0.18	8	0.84	0.27	6	0.55	0.23	5	0.84	0.22	(
ORDAN	JOR	0.13	0.18	10	0.10	0.18	8	0.68	0.29	5	0.59	0.25	6	0.06	0.24	(
AZAKHSTAN	KAZ	-0.89	0.18	10	-0.71	0.17	9	-0.47	0.29	6	-0.35	0.24	6	-0.27	0.28	4
ENYA	KEN	-0.43	0.18	11	-0.52	0.18	8	-0.16	0.24	7	-0.18	0.26	6	-0.48	0.27	;
(IRIBATI	KIR	-0.49	0.43	3	-1.10	0.46	2	-0.78	0.37	2	-0.96	0.51	1	-0.36	0.59	
OREA, NORTH	PRK KOR	-2.05 0.69	0.22 0.18	5 10	-1.89 0.84	0.25 0.17	3 9	-1.70 0.47	0.54 0.24	2 7	-1.75 0.30	0.52 0.21	2 7	-2.43 0.69	0.49 0.22	
(OREA, SOUTH (UWAIT	KWT	0.09	0.16	6	0.36	0.17	7	-0.13	0.24	3	-0.07	0.40	3	0.09	0.22	4
YRGYZ REPUBLIC	KGZ	-0.06	0.22	9	-0.42	0.13	8	-0.36	0.27	6	-0.72	0.25	5	-0.16	0.38	:
AOS	LAO	-1.24	0.26	6	-1.25	0.24	5	-1.24	0.34	3	-1.18	0.42	2	-1.17	0.43	2
ATVIA	LVA	1.02	0.18	11	0.92	0.17	10	0.53	0.28	6	0.72	0.24	6	0.53	0.26	
.EBANON	LBN	-0.49	0.20	8	-0.49	0.18	8	0.29	0.31	4	0.53	0.33	4	0.22	0.27	
ESOTHO	LSO	-0.26	0.25	7	-0.41	0.23	5	-0.38	0.31	3	0.05	0.30	3	-0.71	0.43	2
IBERIA	LBR	-1.83	0.34	3	-1.53	0.25	3	-1.35	0.31	3	-2.35	0.46	2	-2.91	0.52	:
IBYA	LBY	-1.52	0.21	7	-1.57	0.19	6	-2.01	0.37	3	-3.00	0.40	3	-1.96	0.29	4
IECHTENSTEIN	LIE	1.62	0.62	1	1.69	0.30	1									
ITHUANIA	LTU	1.16	0.18	11	1.04	0.17	10	0.52	0.26	8	0.21	0.24	6	0.38	0.26	;
.UXEMBOURG MACAO	LUX MAC	2.02	0.26 0.62	6 1	1.93 0.71	0.22 0.30	5 1	1.90	0.38	3	1.27	0.25	4	1.50	0.28	4
MACEDONIA	MKD	1.50 -0.19	0.02	10	-0.09	0.30	7	 0.13	0.44	2	-0.16	0.29	3	-0.16	0.31	
MADAGASCAR	MDG	0.10	0.13	8	-0.03	0.13	5	-0.17	0.29	5	-0.16	0.39	4	-0.10	0.40	;
MALAWI	MWI	-0.57	0.18	10	-0.39	0.18	7	-0.10	0.29	5	0.10	0.29	5	-0.43	0.29	
MALAYSIA	MYS	0.44	0.18	10	0.55		9	0.36	0.25	7	0.57	0.21	7	0.86		-
MALDIVES	MDV	0.00	0.43	3	0.71	0.26	3	0.07	0.37	2	0.21	0.51	1	0.23	0.59	
MALI	MLI	-0.26	0.21	9	-0.39	0.21	6	0.24	0.29	4	0.13	0.39	4	0.16	0.40	;
MALTA	MLT	1.30	0.28	5	1.11	0.25	3	0.45	0.54	2	0.55	0.52	2	0.22	0.49	:
MARSHALL ISLANDS	MHL	-0.55	0.51	2	-0.76	0.46	2	-0.66	0.37	2	-0.83	0.51	1			
MARTINIQUE	MTQ	0.80	0.62	1	0.95	0.30	1									
MAURITANIA	MRT	0.04	0.28	5	0.09	0.24	4	-0.38	0.31	3	-0.47	0.42	2	-0.65	0.43	:
MAURITIUS	MUS	0.33	0.21	7	0.52	0.19	6	0.74	0.29	4	0.45	0.30	4	0.17	0.35	
MEXICO	MEX	0.55	0.18	10	0.45	0.17	9	0.68	0.24	8	0.78	0.21	7	0.59	0.21	
MICRONESIA MOLDOVA	FSM MDA	0.04 -0.49	0.43 0.18	3 10	-0.65 -0.16	0.46 0.18	2 8	-0.56 -1.11	0.37 0.29	2 6	-0.70 -0.39	0.51 0.24	1 6	0.07	 0.26	
MONGOLIA	MNG	0.18	0.18	7	-0.16	0.18	5	0.37	0.29	4	0.27	0.24	3	-0.57	0.26	;
MOROCCO	MAR	-0.26	0.24	10	-0.10	0.22	9	0.32	0.32	5	0.27	0.39	6	-0.57	0.40	į
MOZAMBIQUE	MOZ	-0.29	0.10	10	-0.52	0.10	6	-0.05	0.29	4	-0.29	0.29	5	-0.98	0.40	
MYANMAR	MMR	-2.34	0.21	7	-1.83	0.19	6	-1.40	0.37	3	-1.25	0.40	3	-1.12	0.29	2
IAMIBIA	NAM	0.45	0.18	11	0.25	0.18	9	0.35	0.29	5	0.40	0.29	4	0.26	0.33	;
IEPAL	NPL	-0.60	0.21	7	-0.51	0.24	5	-0.39	0.34	3	-0.34	0.42	2	-0.22		2
NETHERLANDS	NLD	1.67	0.21	8	1.90	0.18	8	1.91	0.29	5	1.51	0.23	5	1.77	0.22	6
IETHERLANDS ANTILLES	ANT	0.80	0.62	1												
IEW ZEALAND	NZL	1.78	0.21	8	1.69	0.18	7	1.45	0.29	5	1.60	0.23	5	1.97	0.22	(
IICARAGUA	NIC	-0.15	0.20	8	-0.41	0.19	7	0.32	0.34	5	0.45	0.39	3	-0.21	0.26	
NIGER	NER	-0.63	0.23	7	-0.66	0.22	5	-0.26	0.29	4	-0.47	0.39	3	-0.84	0.40	3

			2004			2002			2000			1998			1996	
Country	Code	Est.	S.E.	N.												
NIGERIA	NGA	-1.26	0.18	11	-1.18	0.18	9	-0.38	0.24	7	-0.48	0.26	6	-0.97	0.27	5
NORWAY	NOR	1.33	0.21	8	1.52	0.18	7	0.95	0.29	5	1.25	0.23	5	1.54	0.22	6
OMAN	OMN	0.43	0.22	6	0.63	0.19	7	0.79	0.37	3	0.44	0.40	3	0.61	0.29	4
PAKISTAN	PAK	-1.03	0.19	10	-0.80	0.18	8	-0.58	0.26	7	-0.15	0.25	5	-0.57	0.27	5
PANAMA	PAN	0.22	0.20	8	0.47	0.18	8	1.00	0.29	6	1.23	0.33	4	0.65	0.27	5
PAPUA NEW GUINEA	PNG	-0.64	0.21	8	-0.46	0.19	6	-0.61	0.27	5	-0.48	0.39	3	-0.78	0.33	3
PARAGUAY	PRY	-0.60	0.20	8	-0.56	0.19	7	-0.79	0.35	4	-0.26	0.39	4	0.58	0.29	4
PERU	PER	0.17	0.19	9	0.19	0.18	8	0.59	0.27	7	0.89	0.25	6	0.65	0.24	6
PHILIPPINES	PHL	-0.06	0.18	10	0.05	0.17	9	0.35	0.25	7	0.71	0.21	6	0.45	0.21	7
POLAND	POL	0.64	0.17	12	0.65	0.16	11	0.62	0.24	9	0.83	0.18	8	0.45	0.20	8
PORTUGAL PUERTO RICO	PRT PRI	1.14 0.75	0.21 0.43	8 3	1.47 1.23	0.18 0.29	7 2	1.05 1.20	0.29 0.46	6 1	1.19 1.13	0.23 0.52	6 1	1.46	0.22	6 1
QATAR	QAT	-0.16	0.43	о 6	0.15	0.29	6	0.52	0.46	3	0.47	0.52	3	0.97 0.18	0.56 0.33	3
REUNION	REU	0.16	0.22	1	0.15	0.19		0.52			0.47					
ROMANIA	ROM	-0.06	0.02	12	0.04	0.17	 10	-0.27	 0.26	 8	0.30	 0.24	 5	-0.43	 0.25	6
RUSSIA	RUS	-0.51	0.17	12	-0.35	0.17	11	-1.58	0.24	9	-0.37	0.24	8	-0.43	0.20	8
RWANDA	RWA	-0.42	0.17	5	-0.89	0.10	4	-0.54	0.24	3	-0.94	0.42	2	-1.09	0.59	1
SAMOA	SAM	0.39	0.43	3	-0.06	0.24	3	-0.03	0.34	3	-0.94	0.42	1	-0.21	0.59	1
SAO TOME AND PRINCIPE	STP	-0.47	0.38	3	-0.43	0.25	3	-0.52	0.33	2	-0.76	0.51	1	-0.21	0.59	1
SAUDI ARABIA	SAU	-0.47	0.30	7	0.06	0.23	7	-0.52	0.33	3	-0.90	0.40	3	0.07	0.39	4
SENEGAL	SEN	-0.34	0.21	9	-0.23	0.19	7	-0.10	0.29	5	-0.14	0.40	4	-0.45	0.29	4
SERBIA AND MONTENEGRO	YUG	-0.72	0.19	10	-0.23	0.16	9	-0.83	0.29	1	-1.93	0.39	1	-1.18	0.29	3
SEYCHELLES	SYC	-1.21	0.15	4	-0.49	0.17	3	-1.34	0.33	2	-1.22	0.72	1	-1.17	0.59	1
SIERRA LEONE	SLE	-1.02	0.24	6	-1.28	0.23	4	-1.05	0.29	4	-1.41	0.39	3	-0.45	0.40	3
SINGAPORE	SGP	1.87	0.19	9	1.91	0.18	8	2.31	0.27	7	1.65	0.23	6	2.29	0.22	6
SLOVAK REPUBLIC	SVK	1.15	0.17	12	0.75	0.16	11	0.37	0.25	8	0.29	0.20	7	0.27	0.23	7
SLOVENIA	SVN	0.89	0.17	12	0.85	0.16	11	0.66	0.25	8	0.74	0.24	5	0.50	0.26	5
SOLOMON ISLANDS	SLB	-1.47	0.43	3	-1.89	0.46	2	-1.55	0.37	2	-1.09	0.51	1	-1.24	0.59	1
SOMALIA	SOM	-2.63	0.34	3	-2.01	0.27	2	-2.40	0.38	3	-2.52	0.39	3	-2.91	0.52	2
SOUTH AFRICA	ZAF	0.44	0.17	12	0.53	0.17	10	0.12	0.22	9	0.33	0.19	8	0.27	0.21	7
SPAIN	ESP	1.13	0.21	8	1.40	0.18	8	1.39	0.29	6	1.16	0.23	6	1.16	0.22	6
SRI LANKA	LKA	0.21	0.19	10	0.16	0.18	9	0.32	0.26	6	0.72	0.33	4	0.34	0.27	5
ST. KITTS AND NEVIS	KNA	0.44	0.45	2	0.14	0.53	1	0.28	0.48	1	0.47	0.51	1	-0.14	0.59	1
ST. LUCIA	LCA	0.46	0.45	2	0.14	0.53	1	0.28	0.48	1	0.47	0.51	1	-0.14	0.59	1
ST. VINCENT AND THE GRENADINES	VCT	0.48	0.45	2	0.14	0.53	1	0.28	0.48	1	0.34	0.51	1	-0.21	0.59	1
SUDAN	SDN	-1.04	0.21	8	-1.19	0.19	7	-0.84	0.26	5	-1.14	0.39	3	-1.67	0.29	4
SURINAME	SUR	-0.52	0.30	4	-0.61	0.25	3	-0.97	0.54	2	-0.70	0.52	2	-0.86	0.49	2
SWAZILAND	SWZ	-0.36	0.25	7	-0.14	0.23	5	-0.37	0.31	3	0.21	0.30	3	0.02	0.43	2
SWEDEN	SWE	1.54	0.21	8	1.70	0.18	7	1.39	0.29	6	1.14	0.23	5	1.46	0.22	6
SWITZERLAND	CHE	1.55	0.21	8	1.62	0.18	7	1.55	0.29	5	1.18	0.23	6	1.41	0.22	6
SYRIA	SYR	-1.21	0.21	7	-0.94	0.19	6	-0.78	0.37	3	-1.13	0.40	3	-1.03	0.29	4
AIWAN	TWN	1.29	0.19	9	1.04	0.18	8	0.95	0.27	6	1.11	0.23	5	1.17	0.22	6
AJIKISTAN	TJK	-1.16	0.22	9	-1.26	0.21	8	-1.33	0.27	5	-1.71	0.25	4	-1.88	0.38	3
TANZANIA	TZA	-0.55	0.18	11	-0.50	0.18	8	0.07	0.26	6	0.21	0.26	6	-0.52	0.27	5
THAILAND	THA	-0.01	0.18	10	0.31	0.17	9	0.70	0.24	8	0.27	0.21	7	0.49	0.21	7
TIMOR, EAST	TMP	-0.43	0.57	2	-1.25	0.30	1									
TOGO	TGO	-0.77	0.23	7	-0.61	0.22	5	-0.47	0.29	4	-0.64	0.39	4	0.24	0.52	2
ΓONGA	TON	-0.43	0.43	3	-1.22	0.46	2	-0.18	0.37	2	-1.09	0.51	1	-0.14	0.59	1
RINIDAD AND TOBAGO	TTO	0.61	0.21	7	0.66	0.19	6	0.81	0.34	5	0.82	0.39	3	0.44	0.29	4
TUNISIA	TUN	-0.22	0.18	10	-0.03	0.18	9	0.37	0.26	6	0.50	0.26	5	0.05	0.27	5
TURKEY	TUR	-0.07	0.18	11	0.05	0.17	10	0.24	0.24	8	0.86	0.21	7	0.51	0.21	7
FURKMENISTAN	TKM	-2.22	0.23	7	-1.89	0.21	6	-2.18	0.31	4	-2.45	0.25	4	-2.68	0.38	3
ΓUVALU	TUV	0.76	0.57	2	0.35	0.69	1	0.43	0.50	1						-
JGANDA	UGA	0.07	0.18	11	-0.02	0.18	8	0.16	0.26	6	0.42	0.26	6	0.10	0.27	5
JKRAINE	UKR	-0.48	0.18	11	-0.62		10	-1.22	0.28	7	-0.89	0.20	7	-0.59	0.23	6
JNITED ARAB EMIRATES	ARE	0.95	0.21	7	0.98	0.19	7	0.53	0.37	3	0.43	0.40	3	1.02	0.29	4
JNITED KINGDOM	GBR	1.62	0.21	8	1.78	0.18	8	1.69	0.27	7	1.60	0.23	6	1.82	0.22	6
JNITED STATES	USA	1.22	0.21	8	1.48	0.18	8	1.53	0.27	7	1.51	0.23	6	1.56	0.22	6
JRUGUAY	URY	0.30	0.19	9	0.47	0.18	8	1.05	0.27	7	1.02	0.33	4	0.97	0.27	5
JZBEKISTAN	UZB	-2.10	0.19	10	-1.44	0.18	9	-1.40	0.27	6	-1.82	0.25	5	-1.44	0.28	4
/ANUATU	VUT	-0.33	0.43	3	-1.20	0.46	2	-0.74	0.37	2	-0.31	0.51	1	-0.06	0.59	1
/ENEZUELA	VEN	-1.24	0.18	10	-0.54	0.17	9	-0.55	0.24	8	0.13	0.21	7	-0.08	0.21	7
/IETNAM	VNM	-0.57	0.19	10	-0.68	0.18	9	-0.65	0.26	6	-0.58	0.25	5	-0.56	0.24	6
/IRGIN ISLANDS (U.S.)	VIR	0.96	0.62	1												
WEST BANK	WBG	-1.02	0.51	2	-0.98	0.29	2	0.66	0.96	1	-0.16	0.98	1			
/EMEN	YEM	-1.04	0.20	7	-0.61	0.19	6	-0.43	0.38	3	-0.39	0.39	3	-0.72	0.29	4
ZAMBIA	ZMB	-0.49	0.18	11	-0.56	0.18	8	0.33	0.26	6	0.32	0.26	6	0.27	0.27	5
ZIMBABWE	ZWE	-2.15	0.18	11	-1.70	0.40	9	-1.61	0.04	7	-0.35	0.22	7	-0.87	0.24	6

			2004			2002			2000			1998			1996	
Country	Code	Est.	S.E.	N.	Est.	S.E.	N.	Est.	S.E.	N.	Est.	S.E.	N.	Est.	S.E.	ı
AFGHANISTAN	AFG	-1.81	0.17	7	-1.62	0.23	4	-2.31	0.40	2	-1.13	0.72	1	-1.19	0.74	
ALBANIA	ALB	-0.80	0.15	9	-0.94	0.17	8	-0.76	0.17	8	-0.93	0.21	7	-0.32	0.25	
ALGERIA	DZA	-0.73	0.13	13	-0.62	0.14	11	-0.80	0.18	9	-0.79	0.21	7	-0.62	0.18	
AMERICAN SAMOA	ASM	0.80	0.31	1												
ANDORRA	ADO	1.43	0.30	2	1.52	0.32	1									
ANGOLA	AGO	-1.33	0.14	11	-1.53	0.15	10	-1.47	0.18	9	-1.45	0.21	8	-1.44	0.18	
ANGUILLA	AIA	1.00	0.31	1												
ANTIGUA AND BARBUDA	ATG	0.91	0.30	2	0.99	0.32	1									
ARGENTINA	ARG	-0.71	0.12	15	-0.78	0.13	15	0.17	0.14	14	0.17	0.17	11	0.28	0.15	
ARMENIA	ARM	-0.58	0.14	12	-0.48	0.15	10	-0.52	0.16	9	-0.35	0.19	8	-0.46	0.22	
ARUBA	ABW	1.00	0.31	1												
AUSTRALIA	AUS	1.82	0.13	12	1.80	0.13	11	1.98	0.16	10	1.99	0.19	9	1.89	0.15	
AUSTRIA	AUT	1.76	0.13	11	1.87	0.13	11	2.08	0.16	10	2.10	0.18	10	1.98	0.15	
AZERBAIJAN	AZE	-0.85	0.12	15	-0.84	0.13	13	-0.99	0.15	11	-0.81	0.18	9	-0.86	0.16	
BAHAMAS	BHS	1.28	0.22	4	1.30	0.25	3	1.09	0.39	2	0.99	0.41	2	0.80	0.44	
BAHRAIN	BHR	0.68	0.14	11	0.90	0.14	9	0.77	0.21	7	1.03	0.24	6	0.74	0.18	
BANGLADESH	BGD	-0.86	0.13	13	-0.74	0.13	12	-0.65	0.18	10	-0.72	0.21	7	-0.68	0.18	
BARBADOS	BRB	1.21	0.13	4	1.38	0.13	2	1.34	0.16	10	0.72	0.48	1	-0.08	0.18	
BELARUS	BLR	-1.21	0.22	11	-1.13	0.26	9	-0.99	0.45	9	-1.08	0.48	7	-0.28 -1.01	0.52	
BELGIUM				11			11			10						
	BEL	1.47	0.13	11 5	1.46	0.13		1.62	0.16		1.29	0.19	9 3	1.65	0.15	
BELIZE	BLZ	0.25	0.20		0.02	0.23	4	0.38	0.28	4	0.03	0.32		0.70	0.47	
BENIN	BEN	-0.47	0.17	9	-0.38	0.21	6	-0.39	0.25	5	-0.38	0.29	4	-0.01	0.47	
BERMUDA	BMU	1.10	0.31	1	1.25	0.32	1									
BHUTAN	BTN	0.27	0.23	5	0.22	0.24	4	-0.39	0.35	3	-0.07	0.39	2	-1.19	0.74	
BOLIVIA	BOL	-0.55	0.13	12	-0.65	0.14	12	-0.52	0.16	11	-0.35	0.20	9	-0.66	0.18	
BOSNIA-HERZEGOVINA	BIH	-0.76	0.14	11	-0.86	0.16	10	-0.84	0.19	6	-1.04	0.24	4	-0.19	0.74	
BOTSWANA	BWA	0.73	0.13	14	0.68	0.14	12	0.67	0.20	9	0.66	0.24	7	0.80	0.20	
BRAZIL	BRA	-0.21	0.12	15	-0.32	0.13	15	-0.16	0.14	13	-0.08	0.17	12	-0.26	0.15	•
BRUNEI	BRN	0.56	0.28	3	0.61	0.29	3	0.93	0.54	2	0.91	0.54	2	0.71	0.56	
BULGARIA	BGR	0.05	0.12	14	0.01	0.13	14	-0.13	0.14	12	-0.22	0.18	9	-0.09	0.16	
BURKINA FASO	BFA	-0.62	0.17	9	-0.51	0.21	6	-0.54	0.24	6	-0.42	0.29	5	-0.75	0.41	
BURUNDI	BDI	-1.50	0.21	6	-1.43	0.25	4	-0.93	0.21	6	-0.85	0.32	3	-0.19	0.74	
CAMBODIA	KHM	-0.98	0.17	9	-0.90	0.18	7	-0.77	0.22	6	-0.73	0.26	4	-0.91	0.37	
CAMEROON	CMR	-1.00	0.14	10	-1.19	0.15	10	-1.06	0.20	9	-0.92	0.23	8	-1.18	0.20	
CANADA	CAN	1.75	0.13	12	1.77	0.13	13	1.99	0.15	12	1.98	0.18	10	1.87	0.15	
CAPE VERDE	CPV	0.26	0.20	6	0.17	0.22	4	0.47	0.28	3	0.67	0.33	2	0.09	0.52	
CAYMAN ISLANDS	CYM	1.17	0.31	1	1.52	0.32	1									
CENTRAL AFRICAN REPUBLIC	CAF	-1.44	0.18	7	-1.03	0.22	5	-0.66	0.32	3	-0.87	0.39	2	-0.19	0.74	
CHAD	TCD	-1.15	0.16	9	-0.82	0.21	6	-0.81	0.27	4	-0.98	0.29	4	-0.19	0.74	
CHILE	CHL	1.16	0.12	15	1.24	0.13	14	1.31	0.14	14	1.27	0.17	11	1.26	0.15	1
CHINA	CHN	-0.47	0.12	14	-0.26	0.13	13	-0.33	0.14	12	-0.22	0.18	10	-0.45	0.15	
COLOMBIA	COL	-0.70	0.12	15	-0.82	0.13	14	-0.65	0.14	14	-0.66	0.17	12	-0.46	0.15	1
COMOROS	COM	-1.04	0.25	4	-1.00	0.26	3	-1.19	0.33	2	-0.97	0.42	1			
CONGO	COG	-1.18	0.17	9	-1.23	0.18	9	-1.19	0.20	7	-1.23	0.23	6	-1.27	0.30	
Congo, Dem. Rep. (Zaire)	ZAR	-1.74	0.17	11	-1.81	0.18	9	-1.86	0.19	8	-1.23	0.23	6	-1.82	0.30	
COOK ISLANDS	COK	0.57	0.14	1	0.91	0.16	1	0.75	0.19	o 1			o			
COSTA RICA	CRI	0.57	0.57	14	0.67	0.47	13	0.78	0.71	11	0.90	 0.18	10	0.64	 0.17	
CROATIA	HRV	0.57	0.13	13	0.07	0.14	13	0.78	0.16	10	-0.04	0.18	8	-0.53	0.17	
CUBA											-0.04 -0.50					
	CVB	-1.12	0.14	10	-0.96	0.15	9	-0.64	0.21	7		0.24	6	-0.74		
CYPRUS	CYP	0.85	0.14	9	0.81	0.15	8	0.99	0.21	6	0.88	0.24	6	0.61	0.18	
CZECH REPUBLIC	CZE	0.69	0.11	15	0.69	0.12	14	0.59	0.13	13	0.62	0.15	12	0.64	0.14	•
DENMARK	DNK	1.91	0.13	12	1.93	0.13	12	1.95	0.16	11	1.99	0.19	9	2.03	0.15	
DJIBOUTI	DJI	-0.61	0.21	5	-0.57	0.22	4	-0.55	0.28	3	-0.33	0.33	2			
DOMINICA	DMA	0.66	0.26	3	0.65	0.28	2	-0.32	0.39	1	-0.33	0.42	1			
DOMINICAN REPUBLIC	DOM	-0.54	0.13	12	-0.42	0.14	11	-0.20	0.16	10	-0.06	0.22	6	-0.52	0.19	
ECUADOR	ECU	-0.71	0.13	13	-0.65	0.13	12	-0.67	0.15	12	-0.67	0.19	10	-0.39	0.17	
EGYPT	EGY	-0.02	0.12	14	0.05	0.13	13	0.21	0.15	12	0.17	0.18	10	0.23	0.16	
EL SALVADOR	SLV	-0.34	0.15	11	-0.43	0.16	9	-0.45	0.19	9	-0.15	0.23	7	-0.48	0.19	
EQUATORIAL GUINEA	GNQ	-1.05	0.20	6	-1.22	0.21	5	-1.51	0.28	3	-1.69	0.33	2			
ERITREA	ERI	-0.78	0.20	7	-0.44	0.24	5	-0.07	0.30	4	-0.05	0.39	2	-0.19	0.74	
ESTONIA	EST	0.91	0.12	15	0.78	0.12	14	0.71	0.13	13	0.54	0.18	9	0.35	0.16	
ETHIOPIA	ETH	-1.00	0.14	12	-0.44	0.20	8	-0.38	0.23	7	-0.23	0.29	5	-0.27	0.41	
FIJI	FJI	-0.19	0.20	5	-0.38	0.22	5	-0.69	0.30	3	-0.40	0.29	4	0.09	0.47	
FINLAND	FIN	1.97	0.20	11	1.96	0.22	12	2.11	0.16	11	2.06	0.19	9	2.08	0.47	
FRANCE	FRA	1.33	0.13	12	1.30	0.13	12	1.47	0.15	12	1.44	0.19	10	1.65	0.15	
	GUF															
FRENCH GUIANA		0.50	0.31	1	0.99	0.32	1									
GABON	GAB	-0.51	0.13	11	-0.26	0.14	10	-0.57	0.18	9	-0.48	0.22	6	-0.31	0.19	
GAMBIA	GMB	-0.32	0.17	9	-0.53	0.20	7	-0.34	0.25	5	-0.29	0.29	4	0.25	0.56	
GEORGIA	GEO	-0.87	0.13	13	-1.20	0.15	11	-0.57	0.16	9	-0.74	0.19	7	-0.84	0.22	
GERMANY	DEU	1.66	0.13	12	1.71	0.13	13	1.89	0.15	12	1.90	0.18	10	1.90	0.15	

			2004			2002			2000			1998			1996	
Country	Code	Est.	S.E.	N.	Est.	S.E.	N.	Est.	S.E.	N.	Est.	S.E.	N.	Est.	S.E.	N
SHANA	GHA	-0.16	0.12	15	-0.16	0.14	12	-0.08	0.18	10	-0.06	0.20	9	-0.12	0.18	(
REECE	GRC	0.75	0.13	11	0.77	0.13	11	0.73	0.16	9	0.66	0.19	9	0.78	0.15	,
GRENADA	GRD	0.46	0.26	3	0.25	0.28	2	0.39	0.39	1	0.30	0.42	1			
GUAM	GUM	0.90	0.31	1												
GUATEMALA	GTM	-0.96	0.13	14	-0.84	0.14	12	-0.77	0.17	10	-0.70	0.20	8	-0.64	0.18	
GUINEA	GIN	-1.09	0.18	8	-0.73	0.21	7	-0.96	0.25	5	-0.89	0.27	5	-1.08	0.41	
GUINEA-BISSAU	GNB	-1.26	0.19	7	-1.07	0.20	7	-1.27	0.24	6	-1.24	0.27	5	-1.59	0.56	
GUYANA	GUY	-0.48	0.20	6	-0.46	0.22	5	-0.14	0.26	5	0.06	0.29	4	0.01	0.41	
IAITI IONDURAS	HTI HND	-1.66 -0.61	0.18 0.14	9 13	-1.78 -0.77	0.19 0.14	7 11	-1.50 -0.89	0.25 0.17	6 10	-0.99 -0.56	0.29 0.20	4 8	-1.23 -0.85	0.41 0.18	
IONG KONG	HKG	1.42	0.14	9	1.21	0.14	10	1.64	0.17	8	1.73	0.20	8	1.71	0.16	
IUNGARY	HUN	0.85	0.13	16	0.84	0.14	15	0.84	0.17	14	0.78	0.15	12	0.66	0.10	1
CELAND	ISL	2.01	0.16	8	1.96	0.12	7	2.06	0.19	7	1.90	0.23	6	1.70	0.14	
NDIA	IND	-0.09	0.12	14	0.04	0.13	14	0.22	0.14	12	0.21	0.17	11	-0.01	0.15	
NDONESIA	IDN	-0.91	0.12	16	-0.89	0.12	15	-0.93	0.14	13	-0.97	0.18	10	-0.36	0.15	
RAN	IRN	-0.83	0.13	12	-0.57	0.14	11	-0.44	0.19	8	-0.49	0.22	7	-0.77	0.17	
RAQ	IRQ	-1.97	0.15	8	-1.65	0.15	8	-1.50	0.21	7	-1.68	0.24	6	-1.57	0.18	
RELAND	IRL	1.62	0.13	12	1.68	0.13	12	1.84	0.16	11	1.81	0.18	10	1.77	0.15	!
SRAEL	ISR	0.77	0.13	11	0.90	0.13	12	1.07	0.17	9	1.08	0.20	8	1.18	0.15	!
TALY	ITA	0.74	0.13	11	0.79	0.13	12	0.93	0.15	12	1.07	0.18	10	0.89	0.15	!
/ORY COAST	CIV	-1.42	0.14	11	-1.24	0.15	10	-0.57	0.20	8	-0.52	0.23	8	-0.69	0.20	
AMAICA	JAM	-0.32	0.14	10	-0.46	0.15	9	-0.15	0.18	7	-0.24	0.21	7	-0.21	0.19	
APAN ORDAN	JPN JOR	1.39 0.30	0.13	12 13	1.37 0.34	0.13 0.14	13 10	1.80 0.55	0.16	11 9	1.72 0.60	0.20 0.19	8 9	1.60 0.20	0.15 0.17	
ORDAN (AZAKHSTAN	KAZ	-0.98	0.13 0.12	15	-0.92	0.14	13	-0.55	0.16 0.14	9 12	-0.80	0.19	10	-0.73	0.17	
(ENYA	KEN	-0.98	0.12	16	-1.03	0.13	11	-0.94	0.17	10	-1.02	0.20	9	-0.73	0.18	
KIRIBATI	KIR	0.25	0.12	4	0.62	0.36	2	0.02	0.37	2	-0.65	0.42	1			
OREA, NORTH	PRK	-1.15	0.16	7	-0.98	0.23	5	-1.08	0.34	4	-1.21	0.38	3	-1.04	0.41	
OREA, SOUTH	KOR	0.67	0.12	14	0.83	0.13	14	0.64	0.15	12	0.82	0.17	11	0.81	0.15	
UWAIT	KWT	0.65	0.14	9	0.79	0.14	10	1.18	0.21	6	1.16	0.24	6	0.65	0.18	
YRGYZ REPUBLIC	KGZ	-1.04	0.13	13	-0.77	0.15	11	-0.90	0.16	8	-0.67	0.19	7	-0.69	0.24	
AOS	LAO	-1.27	0.17	8	-0.96	0.18	7	-1.00	0.22	6	-1.07	0.26	4	-1.36	0.32	
ATVIA	LVA	0.48	0.12	13	0.42	0.13	12	0.24	0.14	10	0.08	0.18	9	0.19	0.16	
EBANON	LBN	-0.32	0.14	10	-0.28	0.14	10	-0.10	0.19	8	0.16	0.21	7	-0.27	0.18	
ESOTHO	LSO	-0.03	0.16	9	-0.08	0.19	7	-0.05	0.27	4	-0.13	0.31	4	-0.31	0.47	
IBERIA	LBR LBY	-1.76	0.24	5 9	-1.62	0.25 0.15	5 8	-1.55	0.28 0.21	5 6	-1.79	0.35 0.24	3 6	-2.15	0.56	
.IBYA .IECHTENSTEIN	LIE	-0.65 1.36	0.14 0.30	2	-0.83 1.52	0.13	1	-0.91			-1.11			-1.00	0.18	
ITHUANIA	LTU	0.60	0.12	14	0.45	0.32	13	 0.25	 0.14	 12	 0.19	 0.18	9	 -0.15	 0.16	
UXEMBOURG	LUX	1.98	0.18	7	2.05	0.21	7	2.07	0.29	5	1.92	0.27	5	1.78	0.26	
MACAO	MAC	1.49	0.31	1	0.73	0.32	1									
MACEDONIA	MKD	-0.44	0.13	11	-0.45	0.14	9	-0.32	0.20	5	-0.33	0.23	5	-0.56	0.19	
MADAGASCAR	MDG	-0.30	0.17	9	-0.25	0.21	6	-0.67	0.23	7	-1.01	0.27	5	-0.85	0.41	
//ALAWI	MWI	-0.29	0.13	13	-0.44	0.15	10	-0.46	0.19	9	-0.51	0.21	8	-0.20	0.19	
MALAYSIA	MYS	0.52	0.12	15	0.52	0.13	14	0.53	0.14	13	0.82	0.17	11	0.85	0.15	
MALDIVES	MDV	-0.57	0.24	4	0.28	0.25	3	-0.64	0.37	2	-0.65	0.42	1			
MALI	MLI	-0.34	0.15	12		0.19	9	-0.71		6	-0.57		5	-0.77	0.41	
MALTA	MLT	1.23	0.19	6	1.06	0.25	3	0.74	0.39	2	0.69	0.41	2	0.04	0.44	
MARSHALL ISLANDS	MHL	-0.11	0.36	3	-0.05	0.36	2	-0.58	0.37	2	-0.33	0.42	1			
MARTINIQUE	MTQ MRT	0.95 -0.62	0.31 0.20	1 6	1.25 -0.38	0.32 0.22	1 5	 -0.53	 0.25	 5	 -0.48	0.32	3	 -0.61	0.47	
MAURITANIA MAURITIUS	MUS	0.84	0.20	9	0.86	0.22	5 8	0.86	0.25	5 8	0.96	0.32	3 7	0.71	0.47	
MEXICO	MEX	-0.26	0.14	16	-0.31	0.13	15	-0.38	0.17	14	-0.38	0.22	, 12	-0.12	0.20	-
MICRONESIA	FSM	0.40	0.12	4	-0.22	0.36	2	-0.54	0.37	2	-0.33	0.42	1			
MOLDOVA	MDA	-0.65	0.12	12	-0.53	0.14	10	-0.55	0.15	10	-0.13	0.18	9	-0.20	0.16	
MONACO	MCO	0.77	0.71	1												
MONGOLIA	MNG	0.18	0.17	9	0.34	0.20	7	0.22	0.25	6	0.02	0.23	5	0.48	0.41	
MOROCCO	MAR	-0.05	0.13	14	0.07	0.13	12	0.30	0.18	8	0.53	0.20	9	0.19	0.17	
MOZAMBIQUE	MOZ	-0.60	0.13	14	-0.59	0.18	9	-0.65	0.20	7	-1.02		7	-1.24	0.30	
IYANMAR	MMR	-1.62	0.15	9	-1.61	0.16	8	-1.15	0.25	6	-1.06	0.28	5	-1.32	0.20	
IAMIBIA	NAM	0.22	0.13	14	0.43	0.14	12	1.06	0.22	8	1.14	0.26	6	0.36	0.22	
IAURU	NRU	0.77	0.71	1												
IEPAL	NPL	-0.82	0.14	11	-0.42	0.18	8	-0.36	0.22	6	-0.25	0.26	4	-0.36	0.32	
IETHERLANDS	NLD	1.78	0.13	11	1.80	0.13	12	1.95	0.16	11	2.02	0.19	9	1.94	0.15	
IETHERLANDS ANTILLES	ANT	0.75	0.31	1	 1 96			 1 07	 0.17		 2 17			 2 09	 0.16	
IEW ZEALAND IICARAGUA	NZL NIC	1.93 -0.65	0.13 0.14	10 13	1.86 -0.67	0.14 0.15	9 10	1.97 -0.91	0.17 0.19	9	2.17 -0.82	0.20 0.23	8 7	2.08 -0.68	0.16 0.19	
IIGER	NER	-0.65 -0.92	0.14	8	-0.80	0.15	6	-0.91	0.19	6	-0.82	0.23	4	-0.68	0.19	
WOLIV	INFL	-0.52	0.10	O	-0.00	0.21	U	-0.02	0.24	U	-0.70	0.23	-+	-1.20	U. 4 I	

•	cont.		2004			2002			2000			1998			1996	
Country	Code	Est.	S.E.	N.	Est.	S.E.	N.	Est.	S.E.	N.	Est.	S.E.	N.	Est.	S.E.	N
IORWAY	NOR	1.95	0.13	11	1.92	0.13	11	1.99	0.16	10	2.21	0.19	9	2.10	0.15	9
DMAN	OMN	0.98	0.14	9	0.83	0.14	10	1.24	0.21	7	1.27	0.24	6	1.12	0.18	6
PALAU	PCI	0.77	0.71	1												
PAKISTAN	PAK	-0.78	0.12	14	-0.71	0.14	12	-0.62	0.17	11	-0.72	0.18	9	-0.44	0.17	7
PANAMA	PAN	-0.04	0.13	13	-0.03	0.14	13	-0.04	0.16	11	-0.03	0.21	8	0.26	0.18	7
PAPUA NEW GUINEA	PNG PRY	-0.82	0.14	11	-0.93	0.15	9	-0.43	0.18	9 9	-0.32	0.22	6	-0.33	0.20	4
PARAGUAY PERU	PER	-1.09 -0.63	0.14 0.12	12 14	-1.16 -0.50	0.14 0.13	11 14	-0.83 -0.53	0.18 0.15	9 13	-0.75 -0.48	0.21 0.18	8 11	-0.50 -0.35	0.19 0.16	9
PHILIPPINES	PHL	-0.62	0.12	14	-0.55	0.13	13	-0.53	0.13	13	-0.46	0.18	10	-0.33	0.15	9
OLAND	POL	0.51	0.12	16	0.58	0.12	16	0.62	0.13	14	0.57	0.15	12	0.46	0.13	10
PORTUGAL	PRT	1.16	0.13	11	1.26	0.13	11	1.14	0.16	10	1.30	0.18	10	1.35	0.15	9
PUERTO RICO	PRI	0.74	0.23	3	1.11	0.25	2	1.08	0.43	1	0.89	0.54	1	0.75	0.60	1
)ATAR	QAT	0.79	0.16	8	0.82	0.16	6	1.09	0.25	5	1.39	0.29	4	0.95	0.22	3
REUNION	REU	0.87	0.31	1												
ROMANIA	ROM	-0.18	0.12	15	-0.15	0.13	14	-0.22	0.14	12	-0.25	0.18	8	-0.29	0.16	7
RUSSIA	RUS	-0.70	0.11	16	-0.84	0.12	16	-0.87	0.13	14	-0.78	0.15	12	-0.84	0.14	10
RWANDA	RWA	-0.90	0.19	7	-0.94	0.21	6	-0.83	0.25	5	-1.20	0.32	3	-0.19	0.74	1
SAMOA SAN MARINO	SAM SMR	0.62 0.77	0.24 0.71	4 1	1.04	0.25	3	-0.01	0.30	3	-0.97	0.42	1			
SAO TOME AND PRINCIPE	STP	-0.55	0.71	4	 -0.52	 0.26	3	-0.69	0.33	2	 -0.97	 0.42	 1		••	
AUDI ARABIA	SAU	0.20	0.23	11	0.40	0.20	11	0.62	0.33	8	0.89	0.42	7	0.75	 0.17	7
SENEGAL	SEN	-0.20	0.13	13	-0.23	0.15	10	-0.34	0.19	9	-0.26	0.21	7	-0.17	0.19	5
SERBIA AND MONTENEGRO	YUG	-0.72	0.14	11	-0.95	0.14	10	-0.98	0.22	4	-0.91	0.27	4	-1.20	0.22	3
SEYCHELLES	SYC	-0.17	0.23	5	0.48	0.26	3	-0.44	0.33	2	-0.33	0.42	1			
SIERRA LEONE	SLE	-1.10	0.18	9	-1.23	0.23	6	-0.90	0.24	6	-0.72	0.29	4	-1.02	0.41	3
SINGAPORE	SGP	1.82	0.12	12	1.71	0.13	11	2.10	0.16	11	2.24	0.18	10	2.13	0.15	9
SLOVAK REPUBLIC	SVK	0.49	0.12	14	0.35	0.12	13	0.30	0.13	12	0.13	0.17	10	0.12	0.15	8
SLOVENIA	SVN	0.93	0.12	15	1.06	0.12	14	0.87	0.13	12	0.91	0.18	8	0.52	0.16	6
OLOMON ISLANDS OMALIA	SLB SOM	-1.15 -2.31	0.24 0.24	4 5	-1.53 -2.04	0.36 0.27	2 4	-1.34 -1.72	0.37 0.26	2 5	-0.65 -1.80	0.42 0.29	1 4	 -1.69	0.56	2
SOUTH AFRICA	ZAF	0.32	0.24	17	0.11	0.27	16	0.28	0.20	14	0.21	0.29	12	0.35	0.36	9
SPAIN	ESP	1.12	0.13	12	1.12	0.12	13	1.36	0.15	12	1.35	0.17	10	1.23	0.15	9
GRI LANKA	LKA	-0.03	0.13	14	0.22	0.13	12	-0.17	0.16	10	-0.11	0.21	7	0.29	0.18	6
ST. KITTS AND NEVIS	KNA	0.71	0.26	3	0.31	0.49	1	0.39	0.39	1	-0.33	0.42	1			
ST. LUCIA	LCA	0.75	0.26	3	0.31	0.49	1	0.39	0.39	1	-0.33	0.42	1			
ST. VINCENT AND THE GRENADINES		0.76	0.26	3	0.63	0.49	1	0.39	0.39	1	-0.33	0.42	1			
SUDAN	SDN	-1.59	0.15	10	-1.30	0.16	9	-1.10	0.20	8	-1.31	0.26	5	-1.46	0.21	4
SURINAME	SUR	-0.25	0.21	5	-0.32	0.25	3	-0.62	0.39	2	-0.73	0.41	2	-0.83	0.44	2
SWAZILAND SWEDEN	SWZ SWE	-0.95 1.85	0.16 0.13	8 12	-0.64 1.88	0.19 0.13	6 12	-0.08 1.96	0.27 0.15	4 12	-0.17 1.95	0.31 0.19	4 9	0.40 2.03	0.47 0.15	9
SWITZERLAND	CHE	1.98	0.13	11	1.98	0.13	11	2.20	0.15	11	2.36	0.13	10	2.17	0.15	9
SYRIA	SYR	-0.40	0.14	10	-0.40	0.15	9	-0.33	0.21	7	-0.25	0.24	6	-0.53	0.18	6
AIWAN	TWN	0.83	0.12	13	0.87	0.13	12	0.86	0.16	11	1.17	0.19	9	1.02	0.15	9
AJIKISTAN	TJK	-1.18	0.14	11	-1.29	0.16	10	-1.28	0.17	7	-1.42	0.23	5	-1.41	0.29	3
ANZANIA	TZA	-0.49	0.12	15	-0.46	0.14	12	-0.28	0.17	10	-0.28	0.20	9	-0.70	0.18	6
HAILAND	THA	-0.05	0.12	14	0.23	0.13	13	0.41	0.15	12	0.40	0.17	11	0.49	0.15	9
IMOR, EAST	TMP	-0.60	0.27	4	-1.12	0.32	1									
OGO ONGA	TGO TON	-1.01 -0.11	0.18 0.24	8 4	-0.69 0.04	0.21 0.36	6 2	-0.93 -0.39	0.25 0.37	5 2	-0.83 -0.65	0.27 0.42	5 1	-1.23	0.56	2
RINIDAD AND TOBAGO	TTO	0.17	0.24	9	0.04	0.36	8	0.47	0.37	8	0.38	0.42	6	0.36	 0.19	5
UNISIA	TUN	0.17	0.14	13	0.28	0.13	12	0.44	0.10	10	0.30	0.21	8	0.07	0.13	6
URKEY	TUR	0.04	0.12	15	-0.05	0.13	15	0.05	0.14	13	0.19	0.17	11	0.03	0.15	9
URKMENISTAN	TKM	-1.43	0.14	9	-1.15	0.16	8	-1.13	0.16	6	-1.19	0.20	6	-1.20	0.24	4
UVALU	TUV	0.76	0.27	3	1.79	0.47	1	1.49	0.71	1						
JGANDA	UGA	-0.79	0.12	16	-0.76	0.14	12	-0.58	0.17	10	-0.11	0.20	9	-0.88	0.18	6
JKRAINE	UKR	-0.83	0.12	16	-0.84	0.12	14	-0.72	0.13	12	-0.76	0.16	11	-0.67	0.15	8
INITED ARAB EMIRATES	ARE	0.85	0.14	9	0.97	0.14	9	1.41	0.21	6	1.27	0.24	6	0.78	0.18	6
INITED KINGDOM	GBR	1.71	0.13	12	1.76	0.13	13	1.91	0.15	12	2.05	0.18	10	1.94	0.15	9
INITED STATES IRUGUAY	USA URY	1.58 0.42	0.13 0.13	11 12	1.62 0.54	0.13 0.14	12 11	1.90 0.65	0.16 0.16	11 11	1.77 0.54	0.18 0.21	10 8	1.79 0.53	0.15 0.18	9 7
IZBEKISTAN	UZB	-1.30	0.13	14	-1.23	0.14	12	-0.95	0.16	10	-1.04	0.21	8	-1.02	0.18	5
ANUATU	VUT	-0.07	0.12	4	-0.21	0.13	2	-0.33	0.13	2	-0.65	0.42	1	-1.02		
/ENEZUELA	VEN	-1.10	0.12	16	-1.06	0.30	14	-0.82	0.37	12	-0.64	0.42	12	-0.66	0.15	10
/IETNAM	VNM	-0.59	0.12	15	-0.42	0.13	13	-0.74	0.15	11	-0.81	0.18	9	-0.50	0.16	8
/IRGIN ISLANDS (U.S.)	VIR	1.24	0.31	1												
VEST BANK	WBG	-0.95	0.28	2	-0.32	0.30	2	0.33	0.67	1	1.38	0.56	1			
'EMEN	YEM	-1.11	0.14	11	-1.23	0.16	9	-0.90	0.20	7	-0.68	0.22	6	-1.04	0.19	5
ZAMBIA	ZMB	-0.54	0.12	15	-0.52	0.14	12	-0.44	0.17	10	-0.34	0.20	9	-0.35	0.18	6
ZIMBABWE	ZWE	-1.53	0.13	14	-1.39	0.13	12	-0.74	0.16	10	0.00	0.19	10	-0 24	0.17	7

		-	2004			2002			2000			1998			1996	
Country	Code	Est.	S.E.	N.	Est.	S.E.	N.	Est.	S.E.	N.	Est.	S.E.	N.	Est.	S.E.	N.
AFGHANISTAN	AFG	-1.33	0.21	6	-1.32	0.27	3	-1.56	0.44	1						
LBANIA	ALB	-0.72	0.16	7	-0.83	0.18	6	-0.61	0.18	7	-0.92	0.20	5	0.05	0.42	2
LGERIA	DZA	-0.49	0.14	10	-0.72	0.16	9	-0.62	0.20	7	-0.70	0.21	5	-0.34	0.24	4
MERICAN SAMOA	ASM	0.06	0.41	1												
NDORRA	ADO	1.17	0.41	1	1.29	0.38	1									
NGOLA	AGO	-1.12	0.15	9	-1.17	0.16	9	-1.44	0.20	7	-1.05	0.18	6	-1.00	0.24	4
NGUILLA	AIA	0.78	0.41	1												
NTIGUA AND BARBUDA	ATG	0.88	0.41	1	0.84	0.38	1									
RGENTINA	ARG	-0.44	0.13	13	-0.78	0.14	12	-0.34	0.15	13	-0.22	0.16	10	-0.12	0.17	7
RMENIA	ARM	-0.53	0.14	9	-0.69	0.16	8	-0.74	0.18	7	-0.71	0.18	6	-0.65	0.37	2
RUBA	ABW	1.17	0.41	1												
USTRALIA	AUS	2.02	0.13	11	1.87	0.14	10	2.07	0.18	8	2.21	0.19	7	1.86	0.17	7
JUSTRIA	AUT	2.10	0.15	10	1.85	0.16	8	1.95	0.19	8	2.02	0.17	9	1.66	0.17	7
ZERBAIJAN	AZE	-1.04	0.12	12	-1.04	0.13	11	-1.06	0.13	10	-1.01	0.17	7	-0.97	0.25	3
BAHAMAS	BHS	1.36	0.35	2	1.41	0.33	2	0.87	0.66	1	0.67	0.76	1	0.37	0.61	1
BAHRAIN	BHR	0.76	0.17	8	0.96	0.17	7	0.38	0.22	5	0.41	0.26	4	0.08	0.24	4
BANGLADESH	BGD	-1.09	0.14	10	-0.95	0.14	10	-0.60	0.16	8	-0.40	0.21	5	-0.47	0.24	4
BARBADOS	BRB	0.81	0.34	2	1.29	0.38	1									
BELARUS	BLR	-0.91	0.15	8	-0.76	0.17	7	-0.05	0.18	7	-0.60	0.19	6	-0.92	0.50	1
BELGIUM	BEL	1.53	0.15	9	1.61	0.16	9	1.38	0.19	8	1.23	0.18	8	1.12	0.17	7
BELIZE	BLZ	-0.07	0.26	3	-0.24	0.31	2	0.18	0.36	2	-0.29	0.37	1			
ENIN	BEN	-0.34	0.19	6	-0.52	0.26	4	0.00	0.42	2	-0.76	0.31	2			
BERMUDA	BMU	0.88	0.41	1	1.29	0.38	1						:			
HUTAN	BTN	0.69	0.22	4	0.88	0.22	3	0.55	0.24	2	0.46	0.37	1			
OLIVIA	BOL	-0.78	0.15	10	-0.82	0.15	9	-0.65	0.17	9	-0.41	0.19	8	-0.87	0.24	4
SOSNIA-HERZEGOVINA	BIH	-0.54	0.14	9	-0.61	0.17	7	-0.48	0.22	4	-0.35	0.23	2			
BOTSWANA	BWA	0.86	0.15	11	0.80	0.16	10	1.02	0.21	7	0.53	0.19	5	0.40	0.27	3
RAZIL	BRA	-0.15	0.13	13	-0.06	0.14	12	0.04	0.15	12	0.10	0.16	11	-0.11	0.17	7
RUNEI	BRN	0.23	0.35	2	0.32	0.33	2	-0.12	0.66	1	0.06	0.76	1	0.37	0.61	1
ULGARIA	BGR	-0.04	0.12	12	-0.15	0.13	11	-0.13	0.14	11	-0.50	0.16	8	-0.67	0.24	4
BURKINA FASO	BFA	-0.35	0.20	6	0.13	0.26	4	-0.68	0.31	4	-0.51	0.23	3	-0.31	0.61	1
BURUNDI	BDI	-1.16 -0.97	0.24	4 6	-0.98 -0.95	0.28	3 5	-1.27 -0.72	0.27 0.20	4 4	-0.80 -1.27	0.37 0.27	1 2	 -0.94	 0.47	
CAMBODIA	KHM		0.19			0.19 0.19	5 7			7						1
CAMEROON CANADA	CMR CAN	-0.78 1.99	0.17 0.14	8 11	-1.04 2.05	0.19	/ 10	-1.05 2.32	0.22 0.17	10	-1.11 2.51	0.18 0.18	6 8	-1.10 2.14	0.27 0.17	7
CAPE VERDE	CPV	0.31	0.14	4	0.46	0.15	3	0.32	0.17	2	-0.29	0.16	1			
CAYMAN ISLANDS	CYM	1.17	0.25	1	1.29	0.28	1							••	••	
CENTRAL AFRICAN REPUBL		-1.36	0.41	4	-1.17	0.36	3	 -1.02	 0.42	2	 -0.55	0.37	 1	••		
CHAD	TCD	-1.14	0.24	6	-0.94	0.27	4	-0.57	0.42	2	-0.55	0.31	2	••	••	•
CHILE	CHL	1.44	0.19	12	1.53	0.27	12	1.56	0.42	13	1.20	0.31	10	 1.28	 0.17	7
CHINA	CHN	-0.51	0.13	12	-0.35	0.14	12	-0.34	0.15	12	-0.14	0.14	9	-0.01	0.17	7
COLOMBIA	COL	-0.16	0.12	12	-0.51	0.14	11	-0.40	0.15	13	-0.61	0.16	11	-0.43	0.17	7
COMOROS	COL	-0.16	0.13	3	-0.51	0.14	3	-0.40	0.15	2	-0.80	0.16	1	-0.43	0.17	
CONGO	COG	-1.02	0.20	7	-1.02	0.20	7	-0.98	0.42	5	-0.99	0.24	4	-0.81	0.40	2
Congo, Dem. Rep. (Zaire)	ZAR	-1.31	0.15	9	-1.42	0.20	8	-1.49	0.23	6	-1.58	0.24	4	-1.98	0.33	3
COOK ISLANDS	COK	-0.24	0.13	1	0.03	0.10	1	-0.22	0.27	1	-1.50	0.24		-1.30	0.55	
COSTA RICA	CRI	0.78	0.14	12	0.03	0.15	10	1.05	0.16	9	0.71	0.17	9	0.76	0.22	5
ROATIA	HRV	0.08	0.13	11	0.25	0.14	10	0.04	0.16	9	-0.33	0.17	6	-0.48	0.25	3
CUBA	CUB	-0.62	0.17	7	-0.16	0.17	7	-0.32	0.10	5	-0.29	0.26	4	0.40	0.24	4
CYPRUS	CYP	0.80	0.16	7	0.89	0.18	6	1.11	0.24	4	1.38	0.26	4	1.58	0.24	4
ZECH REPUBLIC	CZE	0.30	0.12	13	0.36	0.13	12	0.40	0.14	13	0.35	0.14	10	0.59	0.17	7
ENMARK	DNK	2.38	0.14	11	2.25	0.15	9	2.38	0.18	9	2.57	0.18	8	2.24	0.17	7
JIBOUTI	DJI	-0.94	0.26	3	-0.72	0.28	3	-1.15	0.42	2	-0.80	0.37	1			
OMINICA	DMA	0.25	0.28	2	0.54	0.31	2	-0.19	0.46	1	-0.29	0.37	1			
OMINICAN REPUBLIC	DOM	-0.50	0.15	9	-0.40	0.16	8	-0.30	0.18	8	-0.53	0.23	4	-0.33	0.26	3
CUADOR	ECU	-0.75	0.15	11	-1.00	0.15	10	-0.96	0.16	11	-0.74	0.19	8	-0.75	0.23	5
GYPT	EGY	-0.21	0.14	12	-0.28	0.15	11	-0.17	0.16	11	-0.25	0.16	8	0.11	0.22	6
EL SALVADOR	SLV	-0.39	0.17	8	-0.49	0.18	7	-0.16	0.19	7	-0.27	0.22	5	-0.75	0.27	3
QUATORIAL GUINEA	GNQ	-1.65	0.24	4	-1.86	0.27	4	-2.05	0.42	2	-0.80	0.37	1			
RITREA	ERI	-0.64	0.22	5	-0.09	0.26	4	0.08	0.33	3	0.46	0.37	1			
STONIA	EST	0.82	0.12	13	0.72	0.13	12	0.78	0.14	12	0.49	0.16	8	0.05	0.25	3
THIOPIA	ETH	-0.85	0.16	9	-0.32	0.23	6	0.06	0.27	5	-0.25	0.23	3	-0.98	0.61	1
IJI	FJI	-0.14	0.25	3	0.15	0.27	3	0.53	0.35	2	0.20	0.31	2			
INLAND	FIN	2.53	0.15	10	2.45	0.16	9	2.56	0.18	9	2.55	0.18	8	2.23	0.17	7
RANCE	FRA	1.44	0.14	11	1.39	0.15	10	1.48	0.17	9	1.75	0.18	8	1.39	0.17	7
RENCH GUIANA	GUF	0.59	0.41	1	0.84	0.38	1									
SABON	GAB	-0.58	0.15	9	-0.52	0.17	8	-0.74	0.20	7	-0.90	0.23	4	-1.24	0.26	3
SAMBIA	GMB	-0.61	0.18	7	-0.74	0.24	5	-0.15	0.38	3	-0.49	0.35	2	0.37	0.61	1

			2004			2002			2000			1998			1996	
Country	Code	Est.	S.E.	N.	Est.	S.E.	N.	Est.	S.E.	N.	Est.	S.E.	N.	Est.	S.E.	N
GEORGIA	GEO	-0.91	0.13	11	-1.03	0.15	8	-0.71	0.16	8	-0.64	0.18	5	-1.05	0.37	2
SERMANY	DEU	1.90	0.14	11	1.81	0.15	10	1.74	0.17	9	2.21	0.17	9	1.76	0.17	7
SHANA	GHA	-0.17	0.13	13	-0.39	0.16	10	-0.34	0.20	8	-0.44	0.17	7	-0.47	0.24	4
GREECE	GRC	0.56	0.15	10	0.58	0.16	9	0.82	0.18	8	0.85	0.18	8	0.37	0.17	7
GRENADA	GRD	0.52	0.28	2	0.73	0.31	2	0.19	0.46	1	-0.04	0.37	1			
GUAM	GUM	0.45	0.41	1												
GUATEMALA	GTM	-0.74	0.15	12	-0.71	0.16	9	-0.64	0.17	9	-0.63	0.19	6	-0.96	0.24	4
GUINEA	GIN	-0.81	0.23	5	-0.66	0.25	5	-0.41	0.38	3	-0.82	0.30	3	0.37	0.61	
GUINEA-BISSAU GUYANA	GNB GUY	-0.71 -0.35	0.22 0.24	5 4	-0.59 -0.48	0.24 0.28	5 3	-0.53 -0.37	0.31 0.32	4 3	-0.57 -0.26	0.30 0.35	3 2	-0.98 -0.31	0.61 0.61	
IAITI	HTI	-1.49	0.24	6	-1.68	0.28	5 5	-1.00	0.32	4	-0.26	0.35	2	-0.31	0.61	
IONDURAS	HND	-0.71	0.22	10	-0.76	0.16	9	-0.64	0.20	8	-0.75	0.19	6	-0.97	0.01	4
IONG KONG	HKG	1.57	0.13	10	1.43	0.14	9	1.52	0.17	9	1.73	0.14	9	1.50	0.17	6
HUNGARY	HUN	0.65	0.12	13	0.59	0.13	13	0.78	0.13	14	0.69	0.14	11	0.63	0.17	-
CELAND	ISL	2.43	0.17	7	2.19	0.20	5	2.49	0.24	5	2.33	0.23	4	1.77	0.22	4
NDIA	IND	-0.31	0.12	13	-0.36	0.13	12	-0.25	0.15	12	-0.17	0.13	11	-0.31	0.17	7
NDONESIA	IDN	-0.90	0.12	15	-1.15	0.12	13	-1.00	0.13	13	-0.95	0.14	9	-0.47	0.17	7
RAN	IRN	-0.59	0.15	9	-0.36	0.16	9	-0.59	0.22	6	-0.63	0.25	5	-0.83	0.23	Ę
RAQ	IRQ	-1.45	0.18	6	-1.44	0.18	6	-1.18	0.22	5	-1.37	0.26	4	-1.36	0.24	4
RELAND	IRL	1.61	0.14	11	1.67	0.15	9	1.57	0.18	9	2.15	0.17	9	1.84	0.17	7
SRAEL	ISR	0.79	0.14	10	1.03	0.15	9	1.27	0.17	8	1.41	0.19	7	1.48	0.17	- 3
TALY	ITA	0.66	0.15	10	0.80	0.16	9	0.91	0.16	11	1.00	0.17	9	0.46	0.17	7
VORY COAST	CIV	-1.01	0.17	8	-0.92	0.18	8	-0.60	0.22	6	-0.35	0.18	6	0.41	0.27	;
AMAICA	JAM	-0.52	0.16	7	-0.45	0.17	7	-0.17	0.22	5	-0.26	0.21	5	-0.33	0.26	:
APAN ORDAN	JPN JOR	1.19 0.35	0.13 0.14	12 10	1.20 0.04	0.14 0.16	11 8	1.39 0.15	0.16 0.19	11 7	1.16 0.21	0.15 0.18	9 7	1.22 -0.10	0.17 0.22	
(AZAKHSTAN	KAZ	-1.10	0.14	12	-1.06	0.16	0 11	-0.85	0.19	10	-0.86	0.16	8	-0.10	0.22	2
(ENYA	KEN	-0.89	0.13	14	-1.00	0.14	9	-1.04	0.18	9	-0.92	0.10	7	-1.05	0.24	_
KIRIBATI	KIR	-0.02	0.24	3	0.20	0.27	2	-0.21	0.24	2	-0.55	0.37	1			
OREA, NORTH	PRK	-1.46	0.23	4	-1.17	0.29	3	-0.93	0.41	2	-0.55	0.76	1	-0.31	0.61	
OREA, SOUTH	KOR	0.17	0.12	13	0.36	0.13	11	0.37	0.15	12	0.11	0.13	11	0.54	0.17	-
CUWAIT	KWT	0.71	0.17	7	1.01	0.16	8	0.90	0.24	4	1.07	0.26	4	0.63	0.24	4
(YRGYZ REPUBLIC	KGZ	-0.92	0.13	10	-0.83	0.14	9	-0.85	0.15	7	-0.69	0.18	5	-0.79	0.37	2
AOS	LAO	-1.15	0.19	5	-0.97	0.19	5	-0.81	0.20	4	-0.70	0.27	2	-0.94	0.47	•
ATVIA	LVA	0.23	0.13	11	0.09	0.14	10	0.04	0.15	9	-0.10	0.16	8	-0.56	0.25	;
EBANON	LBN	-0.51	0.16	7	-0.37	0.16	8	-0.50	0.20	6	-0.32	0.21	5	-0.18	0.24	4
ESOTHO	LSO	-0.05	0.18	7	-0.18	0.23	5	0.32	0.42	2	0.03	0.24	2			
IBERIA	LBR	-0.86	0.30	3	-1.30	0.27	4	-1.29	0.31	4	-1.44	0.35	2	-1.66	0.61	1
.IBYA .IECHTENSTEIN	LBY LIE	-0.91 1.69	0.18 0.41	6 1	-0.79 1.29	0.18 0.38	6 1	-0.91	0.24	4	-0.91	0.26	4	-0.90	0.24	4
ITHUANIA	LTU	0.36	0.41	12	0.26	0.38	11	0.29	 0.14	 12	0.07	 0.17	 7	 -0.13	 0.25	
UXEMBOURG	LUX	2.16	0.12	6	2.17	0.15	4	2.07	0.36	3	2.17	0.26	4	1.80	0.24	:
MACAO	MAC	1.65	0.41	1	-0.07	0.38	1									
MACEDONIA	MKD	-0.52	0.14	9	-0.73	0.16	6	-0.45	0.21	4	-0.30	0.20	4	-0.99	0.33	
MADAGASCAR	MDG	-0.15	0.21	6	0.05	0.26	4	-0.76	0.27	5	-0.80	0.30	3	0.37	0.61	
//ALAWI	MWI	-0.83	0.14	10	-0.85	0.17	8	-0.21	0.20	7	-0.50	0.18	6	-0.99	0.26	;
MALAYSIA	MYS	0.29	0.12	14		0.13	12	0.28	0.16	11	0.73	0.14	10	0.51	0.17	7
MALDIVES	MDV	0.12	0.24	3		0.22	3	-0.45	0.24	2	-0.55	0.37	1			
MALI	MLI	-0.52	0.17	9	-0.11	0.22	7	-0.54	0.31	4	-0.58	0.30	3	-0.31	0.61	•
MALTA	MLT	1.25	0.26	4	0.80	0.33	2	0.21	0.66	1	0.67	0.76	1	0.37	0.61	•
MARSHALL ISLANDS	MHL	-0.84	0.28	2	-1.06	0.27	2	-0.73	0.24	2	-0.55	0.37	1	••		
MARTINIQUE	MTQ	0.69	0.41	1	0.84	0.38	1									•
MAURITANIA	MRT	0.02	0.24	4 7	0.20	0.28	3	-0.66	0.33	3	-0.29	0.37	1			;
MAURITIUS MEXICO	MUS MEX	0.33 -0.27	0.15 0.13	7 14	0.49 -0.21	0.18 0.14	6 12	0.59 -0.36	0.20 0.15	6 13	0.20 -0.39	0.18 0.16	5 10	0.48 -0.34	0.28 0.17	-
MICRONESIA	FSM	-0.27	0.13	3	-0.21	0.14	2	-0.35	0.13	2	-0.39	0.16	10	-0.34	0.17	
MOLDOVA	MDA	-0.86	0.24	10	-0.20	0.27	8		0.24	9	-0.29	0.37	7	-0.21	0.25	
MONGOLIA	MNG	-0.51	0.10	6	0.11	0.20	5	-0.21	0.13	4	-0.28	0.23	3	0.37	0.61	
MOROCCO	MAR	-0.02	0.14	11	-0.05	0.16	9	0.37	0.21	6	-0.10	0.17	7	0.22	0.23	ţ
MOZAMBIQUE	MOZ	-0.79	0.14	11	-0.84	0.20	7	-0.32		5	-0.77	0.19	5	-0.52		2
MYANMAR	MMR	-1.49	0.19	6	-1.36	0.20	6	-1.23	0.25	4	-1.30	0.32	3	-1.17		3
NAMIBIA	NAM	0.18	0.15	11	0.16	0.16	10	1.13	0.23	6	0.24	0.21	4	0.77	0.30	2
NEPAL	NPL	-0.61	0.16	8	-0.37	0.18	6	-0.56	0.20	4	-0.59	0.27	2	-0.28	0.47	1
NETHERLANDS	NLD	2.08	0.15	10	2.16	0.16	9	2.36	0.18	9	2.48	0.18	8	2.13	0.17	7
NETHERLANDS ANTILLES	ANT	1.02	0.41	1												
NEW ZEALAND	NZL	2.38	0.15	8	2.27	0.16	7	2.38	0.18	7	2.55	0.19	7	2.22	0.17	6
NICARAGUA	NIC	-0.34	0.16	10	-0.46	0.17	8	-0.88	0.19	7	-0.75	0.22	5		0.27	;
NIGER	NER	-0.87	0.23	5	-1.06	0.26	4	-0.84	0.38	3	-0.88	0.35	2	-0.31	0.61	1

NIGERIA NORWAY DMAN PAKISTAN PANAMA PAPUA NEW GUINEA PARAGUAY PERU PHILIPPINES POLAND PORTUGAL PUERTO RICO DATAR REUNION ROMANIA RUSSIA RWANDA SAMOA SAO TOME AND PRINCIPE SAUDI ARABIA SENEGAL SERBIA AND MONTENEGRO SEYCHELLES SIERRA LEONE SIMANOR	Code NGA NOR OMN PAK PAN PNG PRY PER PHL POL PRT REU ROM RUS RWA STP SAU SEN YUG SYC SLE SGP	Est1.11 2.11 0.78 -0.87 -0.06 -0.90 -0.99 -0.35 -0.55 0.16 1.23 0.88 0.55 1.02 -0.25 -0.72 -0.36 0.05 -0.66 0.15 -0.40	S.E. 0.13 0.15 0.17 0.14 0.14 0.15 0.15 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12	N. 14 10 7 12 11 9 9 12 13 14 10 3 6 1 13 14 4	Est. -1.32 1.99 1.00 -0.81 -0.24 -0.75 -1.20 -0.23 -0.50 0.40 1.33 1.18 0.92 	S.E. 0.15 0.16 0.15 0.15 0.15 0.15 0.15 0.13 0.13 0.16 0.30 0.20	N. 11 8 9 10 8 9 11 12 13 8 2 5	Est1.06 2.13 0.75 -0.80 -0.33 -0.85 -1.01 -0.07 -0.46 0.49 1.44 1.41	S.E. 0.17 0.19 0.22 0.16 0.16 0.19 0.16 0.15 0.13 0.18 0.44	N. 10 8 5 9 9 7 7 12 14 8 1	Est1.01 2.35 0.89 -0.76 -0.28 -0.70 -0.97 -0.17 -0.26 0.49 1.56 1.46	S.E. 0.16 0.18 0.26 0.18 0.21 0.23 0.21 0.17 0.14 0.14 0.17	N. 8 8 4 8 6 4 6 9 9 10 9 1	Est. -1.20 2.01 0.12 -0.98 -0.50 -0.27 -0.50 -0.10 -0.40 0.41 1.22 1.18	S.E. 0.23 0.17 0.24 0.23 0.24 0.26 0.22 0.17 0.17 0.17 0.17	N. 5 7 4 5 4 3 6 7 7
NORWAY DMAN PAKISTAN PAKISTAN PANAMA PAPUA NEW GUINEA PARAGUAY PERU PHILIPPINES POLAND PORTUGAL PUERTO RICO DATAR REUNION ROMANIA RUSSIA RWANDA SAMOA SAO TOME AND PRINCIPE SAUDI ARABIA SENEGAL SERBIA AND MONTENEGRO SEYCHELLES SIERRA LEONE SINGAPORE	NOR OMN PAK PAN PNG PRY PER PHL POL PRT REU ROM RUS RWA SAM STP SAU SEN SYC SLE	2.11 0.78 -0.87 -0.06 -0.99 -0.35 -0.55 0.16 1.23 0.88 0.555 1.02 -0.25 -0.72 -0.36 0.05 -0.66 0.15 -0.40	0.15 0.17 0.14 0.14 0.15 0.15 0.14 0.12 0.15 0.27 0.21 0.41 0.12 0.12 0.12 0.24	10 7 12 11 9 9 12 13 14 10 3 6 1 13 14 4	1.99 1.00 -0.81 -0.24 -0.75 -1.20 -0.23 -0.50 0.40 1.33 1.18 0.92 	0.16 0.16 0.15 0.15 0.15 0.16 0.15 0.13 0.13 0.16 0.30 0.20	8 9 10 8 9 11 12 13 8 2	2.13 0.75 -0.80 -0.33 -0.85 -1.01 -0.07 -0.46 0.49 1.44 1.41	0.19 0.22 0.16 0.16 0.16 0.19 0.16 0.15 0.13	8 5 9 7 7 12 12 14 8	2.35 0.89 -0.76 -0.28 -0.70 -0.97 -0.17 -0.26 0.49 1.56	0.18 0.26 0.18 0.21 0.23 0.21 0.17 0.14 0.14	8 4 8 6 4 6 9 9	2.01 0.12 -0.98 -0.50 -0.27 -0.50 -0.10 -0.40 0.41 1.22	0.17 0.24 0.23 0.24 0.26 0.26 0.22 0.17 0.17	7 4 5 4 3 6 7 7
DMAN PAKISTAN PAKISTAN PAPUA NEW GUINEA PAPUA NEW GUINEA PARAGUAY PERU PHILIPPINES POLAND PORTUGAL PUERTO RICO PATAR REUNION ROMANIA RUSSIA RWANDA PAMOA PAO TOME AND PRINCIPE PAUDI ARABIA PEREBIA AND MONTENEGRO PERCENICA	OMN PAK PAN PNG PRY PER PHL POL PRT PRI QAT REU ROM RUS RWA SAM STP SAU SEN SEN SYC SLE	0.78 -0.87 -0.06 -0.90 -0.95 -0.55 0.16 1.23 0.88 0.555 1.02 -0.25 -0.72 -0.36 0.05 -0.66 0.15 -0.40	0.17 0.14 0.14 0.15 0.15 0.14 0.12 0.15 0.27 0.21 0.41 0.12 0.12 0.41 0.12 0.41 0.42 0.44 0.42 0.44 0.42	7 12 11 9 9 12 13 14 10 3 6 1 13 14 4	1.00 -0.81 -0.24 -0.75 -1.20 -0.23 -0.50 0.40 1.33 1.18 0.92	0.16 0.15 0.15 0.15 0.16 0.15 0.13 0.13 0.16 0.30 0.20	8 9 10 8 9 11 12 13 8 2	0.75 -0.80 -0.33 -0.85 -1.01 -0.07 -0.46 0.49 1.44 1.41	0.22 0.16 0.16 0.19 0.19 0.16 0.15 0.13	5 9 7 7 12 12 14 8	0.89 -0.76 -0.28 -0.70 -0.97 -0.17 -0.26 0.49 1.56	0.26 0.18 0.21 0.23 0.21 0.17 0.14 0.14	4 8 6 4 6 9 9 10	0.12 -0.98 -0.50 -0.27 -0.50 -0.10 -0.40 0.41 1.22	0.24 0.23 0.24 0.26 0.26 0.22 0.17 0.17	4 5 4 3 6 7 7
PAKISTAN PANAMA PANAMA PANAMA PANAMA PANAMA PANAMA PANAMA PANAMA PANAMA PERU PIHILIPPINES POLAND PORTUGAL PUERTO RICO PATAR PEUNION POMANIA PUUSIA PUMANIA PUM	PAK PAN PNG PRY PER PHL POL PRT PRI QAT REU ROM RUS RWA SAM STP SAU SEN SYC SLE	-0.87 -0.06 -0.90 -0.99 -0.35 -0.55 0.16 1.23 0.88 0.55 1.02 -0.25 -0.72 -0.36 0.05 -0.66 0.15 -0.40	0.14 0.14 0.15 0.15 0.14 0.12 0.15 0.27 0.21 0.41 0.12 0.12 0.24 0.24	12 11 9 9 12 13 14 10 3 6 1 13 14 4	-0.81 -0.24 -0.75 -1.20 -0.23 -0.50 0.40 1.33 1.18 0.92	0.15 0.15 0.15 0.16 0.15 0.13 0.13 0.16 0.30 0.20	9 10 8 9 11 12 13 8 2	-0.80 -0.33 -0.85 -1.01 -0.07 -0.46 0.49 1.44 1.41	0.16 0.16 0.19 0.16 0.15 0.13 0.18	9 9 7 7 12 12 14 8	-0.76 -0.28 -0.70 -0.97 -0.17 -0.26 0.49 1.56	0.18 0.21 0.23 0.21 0.17 0.14 0.14	8 6 4 6 9 10 9	-0.98 -0.50 -0.27 -0.50 -0.10 -0.40 0.41 1.22	0.23 0.24 0.26 0.26 0.22 0.17 0.17	5 4 3 3 6 7 7
PANAMA PAPUA NEW GUINEA PARAGUAY PERU PHILIPPINES OLAND ORTUGAL PUERTO RICO PATAR PEUNION POMANIA PUSSIA PUNANDA PAMOA P	PAN PNG PRY PER PHL POL PRT PRI QAT REU ROM RUS RWA SAM STP SAU SEN SEN SYC SLE	-0.06 -0.90 -0.99 -0.35 -0.55 0.16 1.23 0.88 0.55 1.02 -0.25 -0.72 -0.36 0.05 -0.66 0.15 -0.40	0.14 0.15 0.15 0.14 0.12 0.15 0.27 0.21 0.41 0.12 0.12 0.24 0.24	11 9 9 12 13 14 10 3 6 1 13 14 4	-0.24 -0.75 -1.20 -0.23 -0.50 0.40 1.33 1.18 0.92 	0.15 0.15 0.16 0.15 0.13 0.13 0.16 0.30 0.20	10 8 9 11 12 13 8 2	-0.33 -0.85 -1.01 -0.07 -0.46 0.49 1.44 1.41	0.16 0.16 0.19 0.16 0.15 0.13	9 7 7 12 12 14 8	-0.28 -0.70 -0.97 -0.17 -0.26 0.49 1.56	0.21 0.23 0.21 0.17 0.14 0.14	6 4 6 9 9 10 9	-0.50 -0.27 -0.50 -0.10 -0.40 0.41 1.22	0.24 0.26 0.26 0.22 0.17 0.17	4 3 3 6 7 7
PAPUA NEW GUINEA PARAGUAY ERU HILIPPINES OLAND ORTUGAL PUERTO RICO PATAR PUENION POMANIA PUSIA PUNDA PAMOA P	PNG PRY PER PHL POL PRT PRI QAT REU ROM RUS RWA SAM STP SAU SEN SEN SYC SLE	-0.90 -0.99 -0.35 -0.55 0.16 1.23 0.88 0.55 1.02 -0.25 -0.72 -0.36 0.05 -0.66 0.15 -0.40	0.15 0.15 0.14 0.12 0.12 0.15 0.27 0.21 0.41 0.12 0.12 0.24	9 9 12 13 14 10 3 6 1 13 14 4	-0.75 -1.20 -0.23 -0.50 0.40 1.33 1.18 0.92 	0.15 0.16 0.15 0.13 0.13 0.16 0.30 0.20	8 9 11 12 13 8 2	-0.85 -1.01 -0.07 -0.46 0.49 1.44 1.41	0.16 0.19 0.16 0.15 0.13 0.18	7 7 12 12 14 8	-0.70 -0.97 -0.17 -0.26 0.49 1.56	0.23 0.21 0.17 0.14 0.14 0.17	4 6 9 9 10 9	-0.27 -0.50 -0.10 -0.40 0.41 1.22	0.26 0.26 0.22 0.17 0.17	3 3 6 7 7
PARAGUAY PERU PHILIPPINES POLAND PORTUGAL PUERTO RICO PATAR REUNION ROMANIA RUSIA RUWANDA PAMOA	PRY PER PHL POL PRT PRI QAT REU ROM RUS RWA SAM STP SAU SEN YUG SYC SLE	-0.99 -0.35 -0.55 0.16 1.23 0.88 0.55 1.02 -0.25 -0.72 -0.36 0.05 -0.66 0.15 -0.40	0.15 0.14 0.12 0.12 0.15 0.27 0.21 0.41 0.12 0.12 0.24	9 12 13 14 10 3 6 1 13 14 4	-1.20 -0.23 -0.50 0.40 1.33 1.18 0.92 	0.16 0.15 0.13 0.13 0.16 0.30 0.20	9 11 12 13 8 2	-1.01 -0.07 -0.46 0.49 1.44 1.41	0.19 0.16 0.15 0.13 0.18	7 12 12 14 8	-0.97 -0.17 -0.26 0.49 1.56	0.21 0.17 0.14 0.14 0.17	6 9 9 10 9	-0.50 -0.10 -0.40 0.41 1.22	0.26 0.22 0.17 0.17 0.17	3 6 7 7
PERU PHILIPPINES POLAND PORTUGAL PUERTO RICO PATAR REUNION ROMANIA REWANDA PAMOA PAM	PER PHL POL PRT PRI QAT REU ROM RUS RWA SAM STP SAU SEN YUG SYC SLE	-0.35 -0.55 0.16 1.23 0.88 0.55 1.02 -0.25 -0.72 -0.36 0.05 -0.66 0.15 -0.40	0.14 0.12 0.12 0.15 0.27 0.21 0.41 0.12 0.12 0.24	12 13 14 10 3 6 1 13 14 4	-0.23 -0.50 0.40 1.33 1.18 0.92 	0.15 0.13 0.13 0.16 0.30 0.20	11 12 13 8 2	-0.07 -0.46 0.49 1.44 1.41	0.16 0.15 0.13 0.18	12 12 14 8	-0.17 -0.26 0.49 1.56	0.17 0.14 0.14 0.17	9 9 10 9	-0.10 -0.40 0.41 1.22	0.22 0.17 0.17 0.17	6 7 7 7
PERU PHILIPPINES POLAND PORTUGAL PUERTO RICO PATAR REUNION ROMANIA REWANDA PAMOA PAM	PER PHL POL PRT PRI QAT REU ROM RUS RWA SAM STP SAU SEN YUG SYC SLE	-0.35 -0.55 0.16 1.23 0.88 0.55 1.02 -0.25 -0.72 -0.36 0.05 -0.66 0.15 -0.40	0.14 0.12 0.12 0.15 0.27 0.21 0.41 0.12 0.12 0.24	12 13 14 10 3 6 1 13 14 4	-0.23 -0.50 0.40 1.33 1.18 0.92 	0.15 0.13 0.13 0.16 0.30 0.20	11 12 13 8 2	-0.07 -0.46 0.49 1.44 1.41	0.16 0.15 0.13 0.18	12 12 14 8	-0.17 -0.26 0.49 1.56	0.17 0.14 0.14 0.17	9 9 10 9	-0.10 -0.40 0.41 1.22	0.22 0.17 0.17 0.17	6 7 7 7
PHILIPPINES POLAND PORTUGAL PUERTO RICO PATAR REUNION ROMANIA RUSSIA RWANDA SAMOA SAO TOME AND PRINCIPE SAUDI ARABIA SERBIA AND MONTENEGRO SEYCHELLES SIERRA LEONE SINGAPORE	PHL POL PRT PRI QAT REU ROM RUS RWA SAM STP SAU SEN YUG SYC SLE	-0.55 0.16 1.23 0.88 0.55 1.02 -0.25 -0.72 -0.36 0.05 -0.66 0.15 -0.40	0.12 0.12 0.15 0.27 0.21 0.41 0.12 0.12 0.24 0.24	13 14 10 3 6 1 13 14 4	-0.50 0.40 1.33 1.18 0.92 -0.32	0.13 0.13 0.16 0.30 0.20	12 13 8 2	-0.46 0.49 1.44 1.41	0.15 0.13 0.18	12 14 8	-0.26 0.49 1.56	0.14 0.14 0.17	9 10 9	-0.40 0.41 1.22	0.17 0.17 0.17	7 7 7
POLAND PORTUGAL PURTO RICO PATAR REUNION ROMANIA RUSSIA RWANDA RAMOA RAMOA RAMOI ARABIA REERBIA AND MONTENEGRO REFERENCE ERERGAL REERBIA FOR MONTENEGRO REFERENCE ERERGAL REERBIA AND MONTENEGRO REFERENCE ERERGAL REERBIA LEONE REERBIA LEONE REERBIA LEONE REERBIA LEONE	POL PRT PRI QAT REU ROM RUS RWA SAM STP SAU SEN YUG SYC SLE	0.16 1.23 0.88 0.55 1.02 -0.25 -0.72 -0.36 0.05 -0.66 0.15 -0.40	0.12 0.15 0.27 0.21 0.41 0.12 0.12 0.24 0.24	14 10 3 6 1 13 14 4	0.40 1.33 1.18 0.92 	0.13 0.16 0.30 0.20	13 8 2	0.49 1.44 1.41	0.13 0.18	14 8	0.49 1.56	0.14 0.17	10 9	0.41 1.22	0.17 0.17	7 7
PORTUGAL PUERTO RICO DATAR REUNION ROMANIA RUSSIA RWANDA RAMOA RAMOA RAMOA RAMOA RENEGAL REPREBLES REPEGAL REPREBLES	PRT PRI QAT REU ROM RUS RWA SAM STP SAU SEN YUG SYC SLE	1.23 0.88 0.55 1.02 -0.25 -0.72 -0.36 0.05 -0.66 0.15 -0.40	0.15 0.27 0.21 0.41 0.12 0.12 0.24 0.24	10 3 6 1 13 14 4	1.33 1.18 0.92 -0.32	0.16 0.30 0.20	8	1.44 1.41	0.18	8	1.56	0.17	9	1.22	0.17	7
PUERTO RICO DATAR REUNION ROMANIA RUSSIA RWANDA SAMOA SAO TOME AND PRINCIPE SAUDI ARABIA SERBIA AND MONTENEGRO SERPICHELLES SIERRA LEONE SINGAPORE	PRI QAT REU ROM RUS RWA SAM STP SAU SEN YUG SYC SLE	0.88 0.55 1.02 -0.25 -0.72 -0.36 0.05 -0.66 0.15 -0.40	0.27 0.21 0.41 0.12 0.12 0.24 0.24	3 6 1 13 14 4	1.18 0.92 -0.32	0.30 0.20 	2	1.41								
CATAR REUNION REUNION ROMANIA RUSSIA RWANDA SAMOA SAO TOME AND PRINCIPE SAUDI ARABIA SERBIA AND MONTENEGRO SERYCHELLES SIERRA LEONE SINGAPORE	QAT REU ROM RUS RWA SAM STP SAU SEN YUG SYC SLE	0.55 1.02 -0.25 -0.72 -0.36 0.05 -0.66 0.15 -0.40	0.21 0.41 0.12 0.12 0.24 0.24	6 1 13 14 4	0.92 -0.32	0.20			0.44							
REUNION ROMANIA RUSSIA RWANDA SAMOA SAO TOME AND PRINCIPE SAUDI ARABIA SERNEGAL SERBIA AND MONTENEGRO SEYCHELLES SIERRA LEONE	REU ROM RUS RWA SAM STP SAU SEN YUG SYC SLE	1.02 -0.25 -0.72 -0.36 0.05 -0.66 0.15 -0.40	0.41 0.12 0.12 0.24 0.24	1 13 14 4	 -0.32		Э		0.05			0.48			0.50	
ROMANIA RUSSIA RWANDA RWANDA RAMOA RAO TOME AND PRINCIPE RAUDI ARABIA REPEBIA REPEBIA AND MONTENEGRO REPCHELLES REFRA LEONE RINGAPORE	ROM RUS RWA SAM STP SAU SEN YUG SYC SLE	-0.25 -0.72 -0.36 0.05 -0.66 0.15 -0.40	0.12 0.12 0.24 0.24	13 14 4	-0.32			0.74	0.25	4	0.81	0.32	3	-0.06	0.27	3
RUSSIA RWANDA SAMOA SAO TOME AND PRINCIPE SAUDI ARABIA SERIEGAL SERBIA AND MONTENEGRO SEYCHELLES SIERRA LEONE SINGAPORE	RUS RWA SAM STP SAU SEN YUG SYC SLE	-0.72 -0.36 0.05 -0.66 0.15 -0.40	0.12 0.24 0.24	14 4												
RWANDA SAMOA SAMOA SAO TOME AND PRINCIPE SAUDI ARABIA SENEGAL SERBIA AND MONTENEGRO SEYCHELLES SIERRA LEONE SINGAPORE	RWA SAM STP SAU SEN YUG SYC SLE	-0.36 0.05 -0.66 0.15 -0.40	0.24 0.24	4	-0.92	0.13	11	-0.45	0.14	12	-0.38	0.17	7	-0.18	0.24	4
SAMOA SAO TOME AND PRINCIPE SAUDI ARABIA SENEGAL SERBIA AND MONTENEGRO SEYCHELLES SIERRA LEONE SINGAPORE	SAM STP SAU SEN YUG SYC SLE	0.05 -0.66 0.15 -0.40	0.24			0.13	13	-1.02	0.13	14	-0.69	0.14	11	-0.74	0.17	7
SAO TOME AND PRINCIPE SAUDI ARABIA SENEGAL SERBIA AND MONTENEGRO SEYCHELLES SIERRA LEONE SINGAPORE	STP SAU SEN YUG SYC SLE	-0.66 0.15 -0.40			-0.34	0.26	4	0.06	0.33	3	-0.55	0.37	1			
AUDI ARABIA ENEGAL ERBIA AND MONTENEGRO EYCHELLES EIERRA LEONE EINGAPORE	SAU SEN YUG SYC SLE	0.15 -0.40	0.26	3	0.22	0.22	3	-0.12	0.24	2	-0.29	0.37	1			
SENEGAL SERBIA AND MONTENEGRO SEYCHELLES SIERRA LEONE SINGAPORE	SEN YUG SYC SLE	-0.40	JU	3	-0.31	0.28	3	0.06	0.42	2	-0.80	0.37	1			
ERBIA AND MONTENEGRO EYCHELLES EIERRA LEONE EINGAPORE	YUG SYC SLE		0.17	8	0.51	0.16	9	0.11	0.22	6	0.35	0.25	5	-0.32	0.23	5
EYCHELLES BIERRA LEONE BINGAPORE	SYC SLE		0.15	10	-0.19	0.17	8	-0.38	0.20	7	-0.45	0.21	5	-0.39	0.26	3
SIERRA LEONE SINGAPORE	SLE	-0.48	0.14	9	-0.74	0.15	8	-1.05	0.23	3	-0.97	0.23	4	-0.92	0.30	2
SIERRA LEONE SINGAPORE	SLE	0.01	0.24	4	0.35	0.28	3	0.19	0.42	2	-0.29	0.37	1			
SINGAPORE		-0.88	0.22	6	-0.79	0.24	5	-0.79	0.31	4	-0.72	0.35	2	-1.66	0.61	1
		2.44	0.13	11	2.32	0.14	10	2.51	0.16	11	2.50	0.14	9	2.18	0.17	7
	SVK	0.39	0.12	11	0.29	0.13	11	0.27	0.14	11	-0.08	0.15	8	0.41	0.22	5
	SVN	0.97	0.12	12	0.91	0.13	12	1.10	0.14	11	0.83	0.17	6	1.05	0.25	3
	SLB	-1.23	0.12	3	-1.58	0.13	2	-0.95	0.24	2	-0.55	0.37	1			
	SOM	-1.58		3	-1.18	0.27	3	-1.60	0.24	3	-1.44	0.35	2	 -1.66	 0.61	- 1
			0.30													1
	ZAF	0.48	0.12	15	0.35	0.14	13	0.57	0.15	13	0.42	0.14	11	0.63	0.17	7
	ESP	1.45	0.14	11	1.44	0.15	10	1.69	0.17	10	1.59	0.17	9	0.77	0.17	7
	LKA	-0.16	0.14	11	-0.13	0.14	10	-0.09	0.15	8	-0.24	0.21	5	-0.23	0.24	4
	KNA	0.34	0.28	2	0.41	0.46	1	0.19	0.46	1	-0.04	0.37	1			
	LCA	0.29	0.28	2	0.41	0.46	1	0.58	0.46	1	-0.04	0.37	1			
ST. VINCENT AND THE GRENADINES	VCT	0.34	0.28	2	0.41	0.46	1	0.19	0.46	1	-0.04	0.37	1			
SUDAN	SDN	-1.30	0.17	8	-1.03	0.18	8	-1.08	0.22	6	-0.75	0.28	3	-1.08	0.30	2
SURINAME	SUR	0.36	0.30	3	0.19	0.33	2	0.21	0.66	1	0.06	0.76	1	-0.31	0.61	1
SWAZILAND	SWZ	-0.95	0.19	6	-0.30	0.24	4	-0.13	0.42	2	-0.19	0.24	2			
SWEDEN	SWE	2.20	0.14	10	2.24	0.15	9	2.50	0.17	10	2.55	0.18	8	2.19	0.17	7
SWITZERLAND	CHE	2.17	0.15	10	2.17	0.16	8	2.24	0.18	9	2.58	0.17	9	2.11	0.17	7
	SYR	-0.74	0.17	7	-0.28	0.17	7	-0.72	0.22	5	-0.58	0.26	4	-0.71	0.24	4
	TWN	0.64	0.13	12	0.72	0.14	11	0.67	0.16	11	0.86	0.15	9	0.74	0.17	7
	TJK	-1.11	0.15	8	-1.07	0.15	8	-1.05	0.17	5	-1.12	0.21	3	-1.64	0.50	1
	TZA	-0.57	0.13	12	-0.97	0.16	10	-0.97	0.19	8	-0.95	0.17	7	-1.03	0.24	4
	THA	-0.37	0.13	12	-0.37	0.10	12	-0.30	0.19	12	-0.95	0.17	10	-0.32	0.24	7
	TMP			3												
- , -		-0.29	0.30		-0.52	0.38	1									
	TGO	-0.92	0.23	5	-0.68	0.26	4	-0.63	0.38	3	-0.45	0.30	3	-0.98	0.61	1
	TON	-0.68	0.24	3	-0.73	0.27	2	-0.59	0.24	2	-0.29	0.37	1			
	TTO	0.02	0.16	7	-0.04	0.18	6	0.38	0.20	6	0.13	0.23	4	0.33	0.26	3
	TUN	0.29	0.14	10	0.44	0.15	10	0.70	0.19	8	0.11	0.18	6	-0.05	0.24	4
	TUR	-0.23	0.13	13	-0.40	0.15	12	-0.28	0.16	12	-0.01	0.16	10	0.08	0.17	7
	TKM	-1.34	0.15	6	-1.21	0.16	6	-1.12	0.20	4	-1.13	0.19	4	-1.43	0.37	2
	TUV	-0.78	0.30	2	0.47	0.31	1	-0.07	0.27	1						
JGANDA	UGA	-0.71	0.13	13	-0.92	0.16	10	-0.86	0.19	8	-0.62	0.17	7	-0.52	0.24	4
JKRAINE	UKR	-0.89	0.12	14	-0.97	0.13	12	-0.96	0.15	11	-0.89	0.15	10	-0.74	0.22	5
	ARE	1.23	0.17	7	1.17	0.17	7	0.69	0.24	4	0.78	0.26	4	0.19	0.24	4
	GBR	2.06	0.14	11	1.93	0.15	10	2.19	0.16	11	2.33	0.17	9	1.91	0.17	7
	USA	1.83	0.13	11	1.75	0.14	10	1.79	0.17	10	1.95	0.18	8	1.71	0.17	7
	URY	0.50	0.15	10	0.81	0.15	9	0.76	0.16	10	0.42	0.20	7	0.45	0.17	4
	UZB	-1.21	0.13	11	-1.03	0.13	10	-0.80	0.16	8	-0.98	0.20	6	-0.99	0.25	3
	VUT	-0.53	0.24	3	-0.83	0.27	2	-0.83	0.24	2	-0.29	0.37	1			
	VEN	-0.94	0.13	14	-0.94	0.14	12	-0.61	0.16	11	-0.77		10	-0.72		7
	VNM	-0.74	0.12	13	-0.67	0.13	12	-0.71	0.14	10	-0.60	0.15	8	-0.64	0.22	6
` ,	VIR	0.88	0.41	1												
VEST BANK	WBG	-0.60	0.34	2	-0.92	0.35	2	0.79	0.49	1	0.49	0.49	1			
	YEM	-0.84	0.16	8	-0.70	0.18	7	-0.67	0.22	5	-0.57		4	-0.25	0.26	3
	ZMB	-0.74	0.13	12	-0.91	0.16	10	-0.82	0.19	8	-0.56	0.17	7	-0.98	0.24	4
	ZWE	-1.01	0.13	11	-1.22	0.16	10	-0.87		8	0.00	0.17			J.27	-

Appendix D: Definition and Construction of Governance Indicators

D1: Definition of Governance Indicators

We construct six aggregate governance indicators, motivated by a broad definition of governance as the traditions and institutions by which authority in a country is exercised. This includes (1) the process by which governments are selected, monitored and replaced, (2) the capacity of the government to effectively formulate and implement sound policies, and (3) the respect of citizens and the state for the institutions that govern economic and social interactions among them. This classification of indicators into clusters corresponding to this definition of governance is not intended to be definitive. Rather, it simply reflects our views of what constitutes a consistent and useful organization of the data that is concordant with prevailing notions of governance.

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 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 labeled "Political Stability and Absence of 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, including domestic violence and terrorism. This index captures the idea that the quality of governance in a country is compromised by the likelihood of wrenching changes in 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.²

The next two clusters summarize various indicators of the ability of the government to formulate and implement sound policies. In "Government Effectiveness" we combine responses on 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. The main focus of this index is on "inputs" required for the government to be able to produce and implement good policies and deliver public goods. The second cluster, which we refer to as "Regulatory Quality", 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

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² It is worth noting that there is some ambiguity regarding the normative direction of a few of the subcomponents this indicator. For example, a few of our sources rank countries such as Cuba and North Korea highly in terms of their political stability, which simply reflects the longevity of the governments in power in these countries.

abide by the rules of society. These include perceptions of the incidence of 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, and importantly, the extent to which property rights are protected. The final cluster, which we refer to as Control of Corruption, measures perceptions of corruption, conventionally defined as 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, to measuring "grand corruption" in the political arena or in the tendency of elite forms to engage in "state capture". The presence of corruption is often a manifestation of a lack of respect of both the corrupter (typically a private citizen or firm) and the corrupted (typically a public official or politician) for the rules which govern their interactions, and hence represents a failure of governance according to our definition.

D2. Aggregation Methodology

For each of the governance clusters, we combine the component indicators into an aggregate governance indicator using the same methodology used to calculate our first set of indicators, as documented in detail in Kaufmann, Kraay, and Zoido-Lobaton (1999a). We use an extension of the standard 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. In particular, we assume that we can write the observed score of country j on indicator k, y(j,k), as a linear function of unobserved governance, g(j), and a disturbance term, $\varepsilon(j,k)$, as follows:

(D1)
$$y(j,k) = \alpha(k) + \beta(k) \cdot (g(j) + \varepsilon(j,k))$$

where $\alpha(k)$ and $\beta(k)$ are unknown parameters which map unobserved governance g(j) into the observed data y(j,k). As a choice of units, we assume that g(j) is a random variable with mean zero and variance one. We assume that the error term has zero mean and a variance is the same across countries, but differs across indicators, i.e. $E\left[\epsilon(j,k)^2\right] = \sigma_\epsilon^2(k)$. Finally we assume that the errors are independent across sources, i.e. $E\left[\epsilon(j,k)\cdot\epsilon(j,l)\right] = 0$ for I different from k. This assumption imposes the identifying assumption that the only reason why two sources might be correlated with each other is because they are both measuring the same underlying unobserved governance dimension.⁴

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³ Unobserved components models were pioneered in economics by Goldberger (1972), and the closely-related hierarchical and empirical Bayes models in statistics by Efron and Morris (1971, 1972).

⁴ For some pairs of sources, this assumption may not be literally true. For example, it will be violated if different risk rating agencies base their own assessments on the assessments of other agencies included in our sample. We have to the best of our knowledge excluded any source of governance data where we found that it was explicitly based on another one of our sources. Nevertheless, the possibility of correlated errors remains. The main consequence of this is that our standard errors will be biased downwards -- see Kaufmann, Kraay and Zoido-Lobatón (1999a) for an example. This underscores the importance of caution in comparing governance estimates across countries and over time, that we emphasize throughout.

The disturbance term $\epsilon(j,k)$ captures two sources of uncertainty in the relationship between true governance and the observed indicators. First, the particular aspect of governance covered by indicator k is imperfectly measured in each country, reflecting either perception errors on the part of experts (in the case of polls of experts), or sampling variation (in the case of surveys of citizens or entrepreneurs). Second, the relationship between the particular concept measured by indicator k and the corresponding broader aspect of governance may be imperfect. For example, even if the particular aspect of corruption covered by some indicator k, (such as the prevalence of "improper practices") is perfectly measured, it may nevertheless be a noisy indicator of corruption if there are differences across countries in what "improper practices" are considered to be. Both of these sources of uncertainty are reflected in the indicator-specific variance of the error term, $\sigma_{\epsilon}^{2}(k)$.

Given estimates of the parameters of the model, $\alpha(k)$, $\beta(k)$, and $\sigma(k)$, we can compute estimates of governance 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 K(j) observed data points for that country. This conditional mean is the following weighted average of appropriately-rescaled scores of each of the component indicators:

(D2)
$$E[g(j) \mid y(j,1),...,y(j,K(j))] = \sum_{k=1}^{K(j)} w(k) \cdot \frac{y(j,k) - \alpha(k)}{\beta(k)}$$

where the weights applied to each source k,
$$w(k) = \frac{\sigma_\epsilon(k)^{-2}}{1 + \sum\limits_{k=1}^{K(j)} \sigma_\epsilon(k)^{-2}}$$
, are inversely

proportional to the variance of the error term of that source. As we discuss in more detail in the final section of the paper, we find that the efficiency gains from precision-weighting are substantial relative to the alternative of simply averaging re-scaled scores from each source for each country. We also report the standard deviation of this conditional distribution as an indicator of the confidence we can have in this estimate, which is:

(D3)
$$SD[g(j) | y(j,1),...,y(j,K(j))] = \left(1 + \sum_{k=1}^{K(j)} \sigma_{\varepsilon}(k)^{-2}\right)^{-\frac{1}{2}}$$

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.

The assumptions of the unobserved components model ensure that the distribution of unobserved 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.⁵

In order to implement this approach, we require estimates of all of the unknown survey-specific parameters, $\alpha(k),\,\beta(k),$ and $\sigma_\epsilon^2(k)$. We do this in a two-stage procedure. First, we assume that governance and the error terms in Equation (D1) are jointly normally distributed, and then apply maximum likelihood methods using only the representative sources to retrieve the parameters of interest for each governance cluster. This is nothing more than a standard application of the unobserved components model. We cannot however include our many non-representative sources in the first stage of the estimation procedure. This is because the distribution of unobserved governance in the subset of countries covered by these surveys is not the same as that in the world as a whole. As a result, for these sources we cannot make the assumption that unobserved governance in the countries covered by these surveys follows a standard normal distribution, as is required by the maximum likelihood procedure.

We instead obtain the parameters of the non-representative sources in a two-stage procedure. First, we estimate the parameters of the model only for the representative sources, and construct preliminary estimates of governance based only on these sources. In the second stage, we treat these preliminary estimates as an observable proxy for governance, and obtain the parameters of interest for the non-representative sources by regressing these indicators on observable governance, i.e. by directly estimating Equation (D1).⁶ We then use all the estimated parameters of the unobserved components model to construct a final set of estimates of governance.

The resulting estimates of governance have an expected value (across countries) of zero, and a standard deviation (across countries) of one. Due to sampling variability, this will not be exactly true for any one of our governance indicators in any period. To avoid any confusion regarding the units of the governance indicators, we rescale the estimates of governance by subtracting the mean (across countries) and dividing by the standard deviation (across countries) for each indicator, so that each indicator has a mean of zero and a standard deviation of one in each period.

It is also important to note that we have assumed that the distribution of unobserved governance is the same in every period. In particular, this imposes the restriction that the mean or world average of governance is the same in each period. As a result, our indicators are not informative about global trends in governance, although they are potentially informative about changes in countries' relative positions over time.

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⁵ 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.

⁶ In order to get consistent estimates of the parameters of the non-representative sources, we need to adjust for attenuation bias caused by the fact that our observable proxy for governance is a noisy indicator of true governance. Fortunately, we can use the information on the standard errors associated with the governance estimates obtained in the first stage to do this.