

# **Governance Research Indicators Project**

## ***Governance Matters III: Indicators for 1996-2002***

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***The World Bank***

***Abridged Basic Presentation***

***For data, full paper, more detailed presentation, references and URLs see end of this presentation, or visit: [www.worldbank.org/wbi/governance](http://www.worldbank.org/wbi/governance), or***

**[www.worldbank.org/wbi/governance](http://www.worldbank.org/wbi/governance)**

# Outline

- **Definition and sources of Data on Governance**
- **Constructing Aggregate Indicators**
- **Interpreting i) Levels; ii) Changes; and iii) Global Trends in governance across countries:**
- **Uses and Limitations of Governance indicators**
  1. **Why *subjective* data?**
  2. **Margins of error for *objective indicators*?**
  3. ***Ideological biases* in expert assessments?**
  4. **Margins of error and *aid allocation rules*?**
- **Summary and implications for future work**

# Defining and Unbundling Governance

*Governance: the traditions and institutions by which authority is exercised.*

This includes:

- The process by which those in authority are selected and replaced (**VOICE AND ACCOUNTABILITY;**  
**POLITICAL STABILITY & ABSENCE OF VIOLENCE**)
- The capacity of government to formulate and implement policies (**GOVERNMENT EFFECTIVENESS;**  
**REGULATORY QUALITY**)
- The respect of citizens and state for institutions that govern interactions among them (**RULE OF LAW,**  
**CONTROL OF CORRUPTION**)

# Sources of Governance Data

- **“Subjective” data on governance from 25 different sources constructed by 18 different organizations**
- **Data sources include cross-country surveys of firms, commercial risk-rating agencies, think-tanks, government agencies, international organizations, etc.)**
- **Over 200 proxies for various dimensions of governance**
- **Organize these measures into six clusters corresponding to definition of governance, for four periods: 1996, 1998, 2000, and 2002, covering up to 199 countries**

# Sources of Governance Data

- Cross-Country Surveys of Firms: *Global Competitiveness Survey, World Business Environment Survey, World Competitiveness Yearbook, BEEPS*
- Cross-Country Surveys of Individuals: Gallup International, Latinobarometro, Afrobarometer
- Expert Assessments from Commercial Risk Rating Agencies: DRI, PRS, EIU, World Markets Online,
- Expert Assessments from NGOs, Think Tanks: Reporters Without Borders, Heritage Foundation, Freedom House, Amnesty International
- Expert Assessments from Governments, Multilaterals: World Bank CPIA, EBRD, State Dept. Human Rights Report

# Inputs for Governance Indicators 2002

| Publisher                        | Publication                             | Source | Country Coverage                |
|----------------------------------|-----------------------------------------|--------|---------------------------------|
| •Wefa's DRI/McGraw-Hill          | Country Risk Review                     | Poll   | 117 developed and developing    |
| •Business Env. Risk Intelligence | BERI                                    | Survey | 50/115 developed and developing |
| •Columbia University             | Columbia U. State Failure               | Poll   | 84 developed and developing     |
| •World Bank                      | Country Policy & Institution Assessment | Poll   | 136 developing                  |
| •Gallup International            | Voice of the People                     | Survey | 47 developed and developing     |
| •Business Env. Risk Intelligence | BERI                                    | Survey | 50/115 developed and developing |
| •EBRD                            | Transition Report                       | Poll   | 27 transition economies         |
| •Economist Intelligence Unit     | Country Indicators                      | Poll   | 115 developed and developing    |
| •Freedom House                   | Freedom in the World                    | Poll   | 192 developed and developing    |
| •Freedom House                   | Nations in Transit                      | Poll   | 27 transition economies         |
| •World Economic Forum/CID        | Global Competitiveness                  | Survey | 80 developed and developing     |
| •Heritage Foundation             | Economic Freedom Index                  | Poll   | 156 developed and developing    |
| •Latino-barometro                | LBO                                     | Survey | 17 developing                   |
| •Political Risk Services         | International Country Risk Guide        | Poll   | 140 developed and developing    |
| •Reporters Without Borders       | Reporters sans frontieres (RSF)         | Survey | 138 developed and developing    |
| •World Bank/EBRD                 | BEEPS                                   | Survey | 27 transition economies         |
| •IMD, Lausanne                   | World Competitiveness Yearbook          | Survey | 49 developed and developing     |
| •Binghamton Univ.                | Human Rights Violations Research        | Survey | 140 developed and developing    |

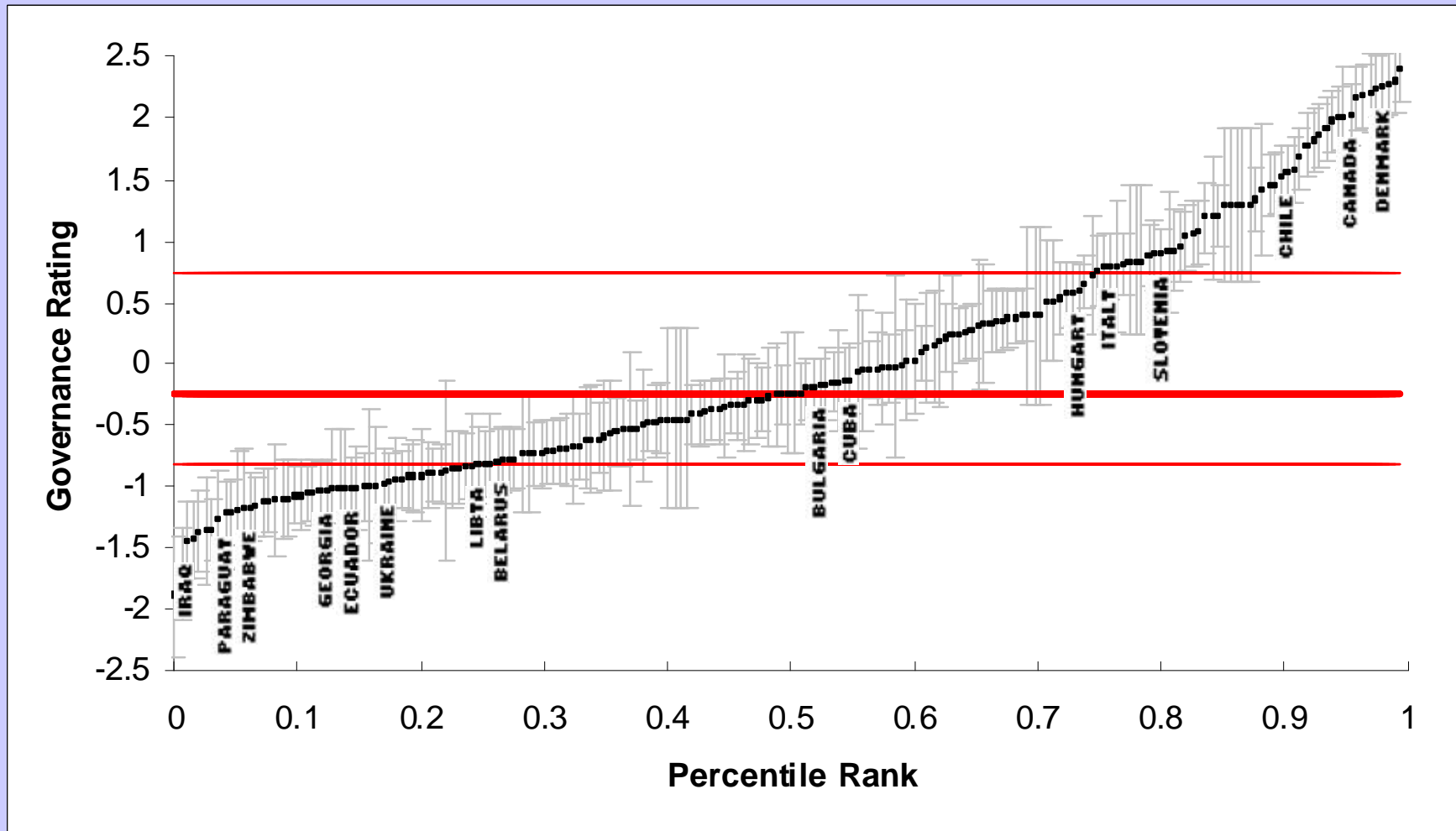
# Building Aggregate Governance Indicators

- Use Unobserved Components Model (UCM) to construct composite governance indicators, and margins of error for each country
- Estimate of governance: *weighted average* of observed scores for each country, re-scaled to common units
- Weights are proportional to *precision* of underlying data sources
- Precision depends on how strongly individual sources are correlated with each other
- Margins of error reflect (a) *number of sources* in which a country appears, and (b) the *precision of those sources*

# Estimating the Unobserved Components Model

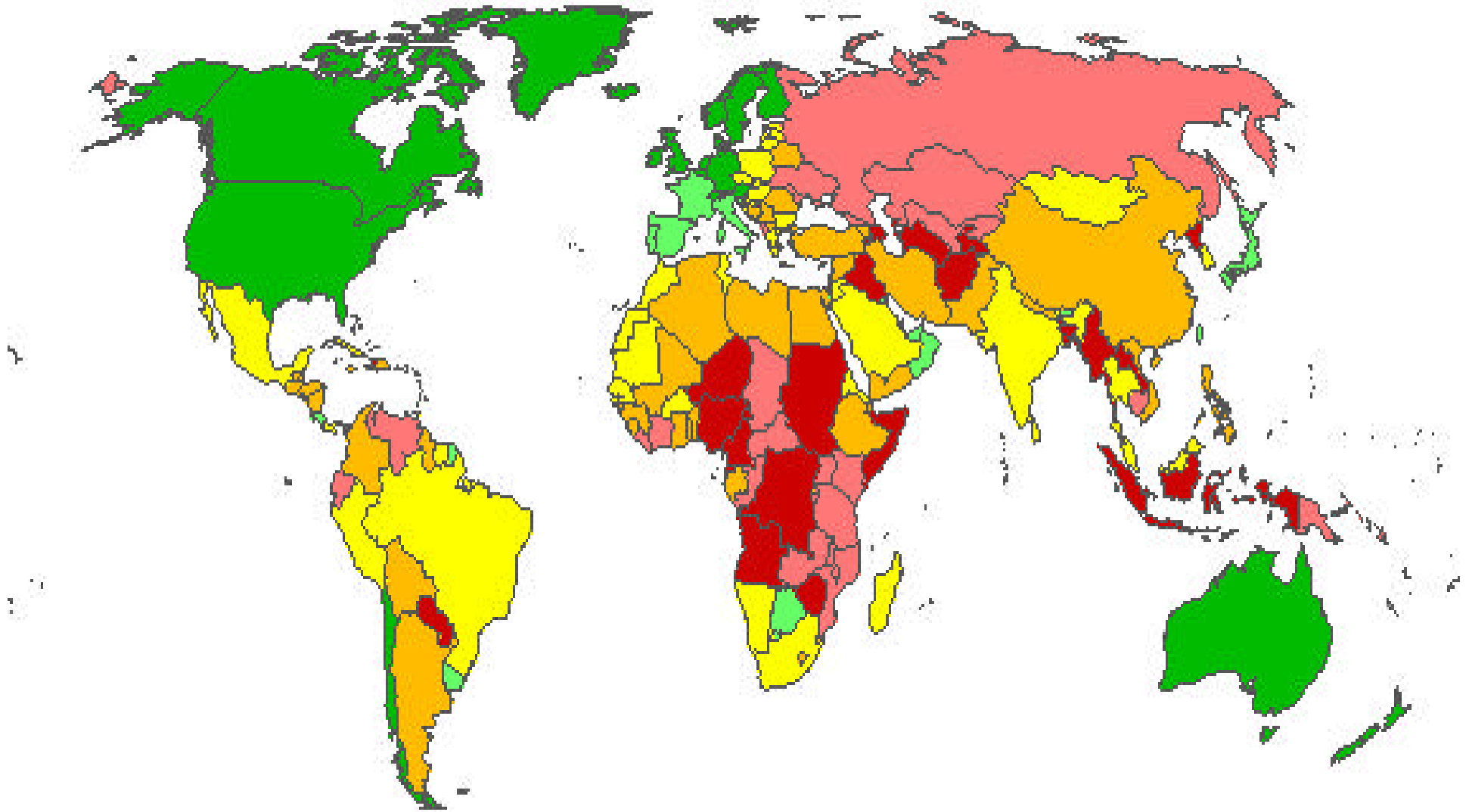
- Distinguish between *representative* and *non-representative sources*
- For representative sources, estimate parameters  $\alpha(k)$ ,  $\beta(k)$ , and  $\sigma_\varepsilon(k)$  using maximum likelihood
- Construct initial estimate of governance using representative sources only
- For non-representative sources, estimate parameters by regressing each source on initial estimate of governance
- Construct final estimate of governance using all sources

# Levels of Corruption Across Countries, 2002



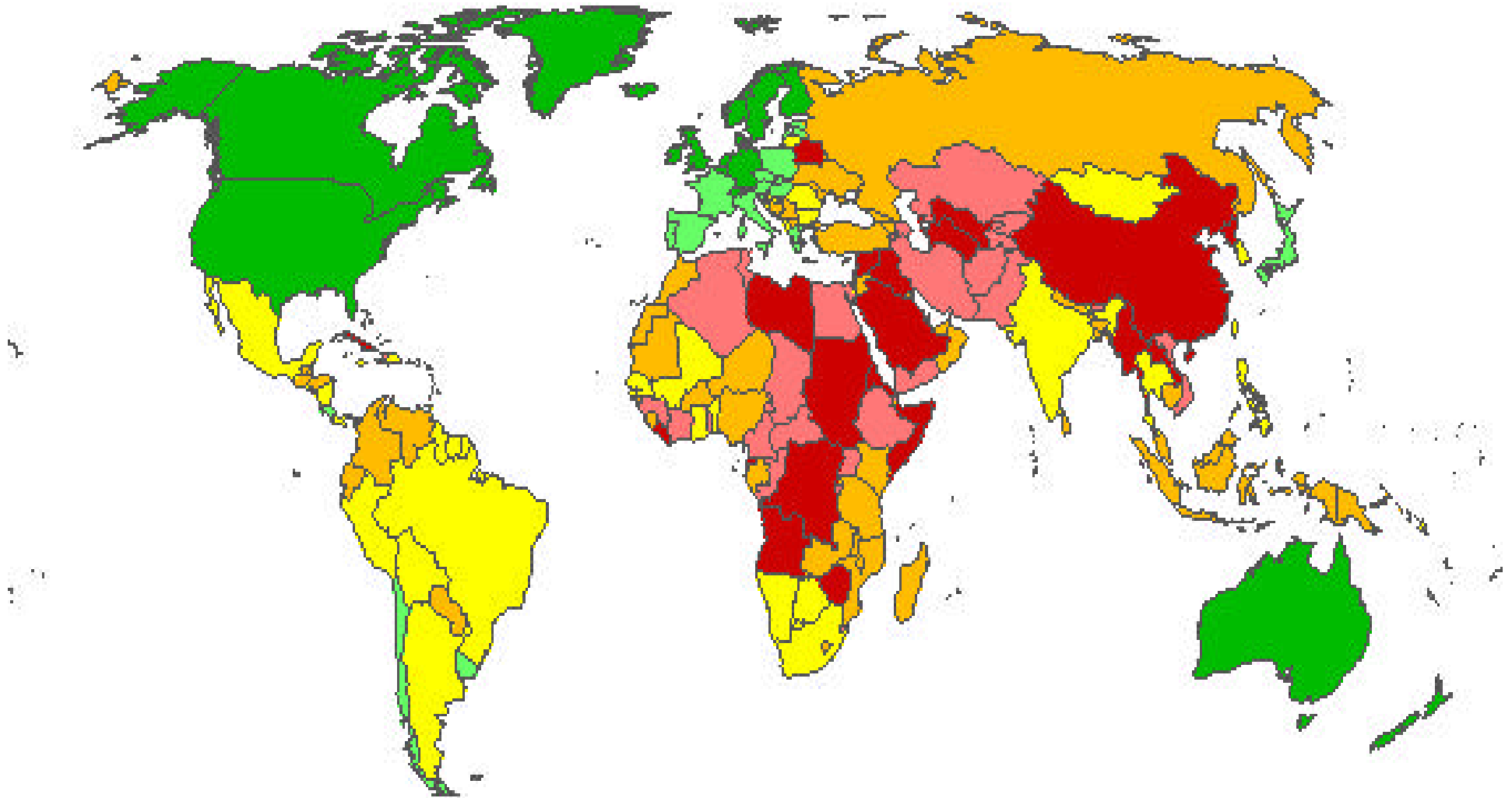
Note: This graph shows estimates of the indicated dimension of governance (on the vertical axis) for all countries graphed against each country's percentile rank (on the horizontal axis) for 2002. The vertical bars show the statistically-likely range of values of governance for each country, with the midpoint of each bar corresponding to the best single estimate. Selected countries are labeled. As emphasized in the text, the ranking of countries along the horizontal axis is subject to significant margins of error, and this ordering in no way reflects the official view of the World Bank, its Executive Directors, or the countries they represent.

# Governance World Map: Control of Corruption, 2002



Source for data: <http://www.worldbank.org/wbi/governance/govdata2002> ; Map downloaded from : <http://info.worldbank.org/governance/kkz2002/govmap.asp>  
Colors are assigned according to the following criteria: Red, 25% or less rank worse ( bottom 10% in darker red); Orange, between 25% and 50%; Yellow, between 50% and 75%; Light Green between 75% and 90% ; Dark Green above 90%

# Governance World Map: Voice and Accountability, 2002



Source for data: <http://www.worldbank.org/wbi/governance/govdata2002> ; Map downloaded from : <http://info.worldbank.org/governance/kkz2002/govmap.asp>  
Colors are assigned according to the following criteria: Red, 25% or less rank worse ( bottom 10% in darker red); Orange, between 25% and 50%; Yellow, between 50% and 75%; Light Green between 75% and 90% ; Dark Green above 90%

## Interpreting Differences in Governance

- **Cross-country comparisons: margins of error need to be taken very seriously – yet S.E. information is useful**
- **Small differences in estimates in governance unlikely to be statistically significant**
- **For larger differences, inferences can be made – useful information is provided by this data**
- **Differences in governance between groups at the high and low end in the world *are* unambiguous**
- **Caution in interpreting differences across countries at a point in time applies at least as importantly to *changes over time* for estimates for the same country**

# Significance of Changes over Time

- No formal tests of statistical significance (need information on *joint* distribution of governance in two periods)
- Informally focus on “large” changes where 90% confidence intervals in two periods don’t overlap
- Relatively few “large” changes – but for most of these cases, most underlying sources agree about the direction of change
- Most changes over short period are “small”; often lack of consensus among individual sources about direction of change

*Observed changes in governance estimates, especially over very short periods, should be interpreted very cautiously*

# Summary of Global Trends in Governance

- Thus, no evidence of systematic improvements in governance worldwide over the (*admittedly short*) 1996-2002 period.
- This contrasts some other dimensions (e.g. infrastructure, technology, and science education): the same firms report progress over the period, thus differentiating performance.

**So...**

- Deterioration in governance performance of an individual country on the relative governance indicators cannot be due to the rest of the world improving

# Why Subjective Governance Data?

- For some dimensions (e.g. corruption), no cross-country objective data exist
- Limited quantitative measures of corruption focus differences in procurement costs relative to materials purchased
- Subjective data can pick up crucial distinction between *de jure* and *de facto* institutional arrangements – most countries in the world have elections, anti-corruption commissions, and decent anticorruption laws in the books
- Perceptions do matter (e.g. '*Inequality of Influence*')

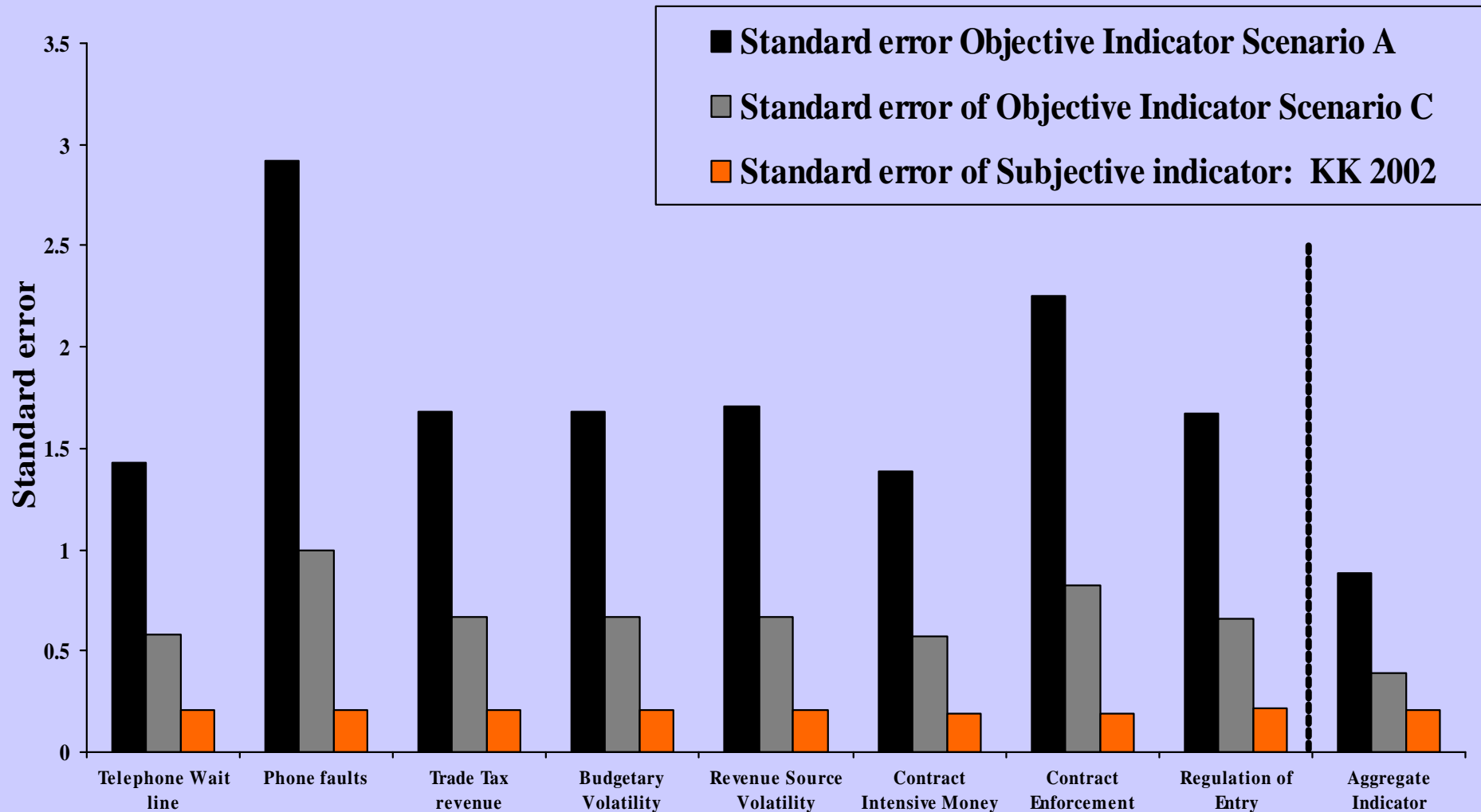
# Margins of Error Are Not Unique to Subjective Indicators

Many potential objective/quantitative indicators of governance:

- Regulatory Quality: *Days to start a business*
- Rule of Law: *Contract-intensive money (share of M2 held in banking system, confidence in property rights protection)*
- Government Effectiveness: *Stability of budgetary revenue and expenditure shares (policy instability), share of trade taxes in revenue (narrow tax base)*

*Like all indicators, they are imperfect proxies for broader notions of governance – and so have implicit margins of error relative to these broader concepts*

# Large Margins of Error for Objective Governance Indicators



Option A: estimate of standard deviation of measurement error in subjective indicator is correct. Option C: standard deviation of measurement error in subjective indicator is twice as large as that in the objective indicator. The standard error of subjective indicator refers to the Governance component closely related to the associated objective indicator

# Margins of Error and Aid Allocation

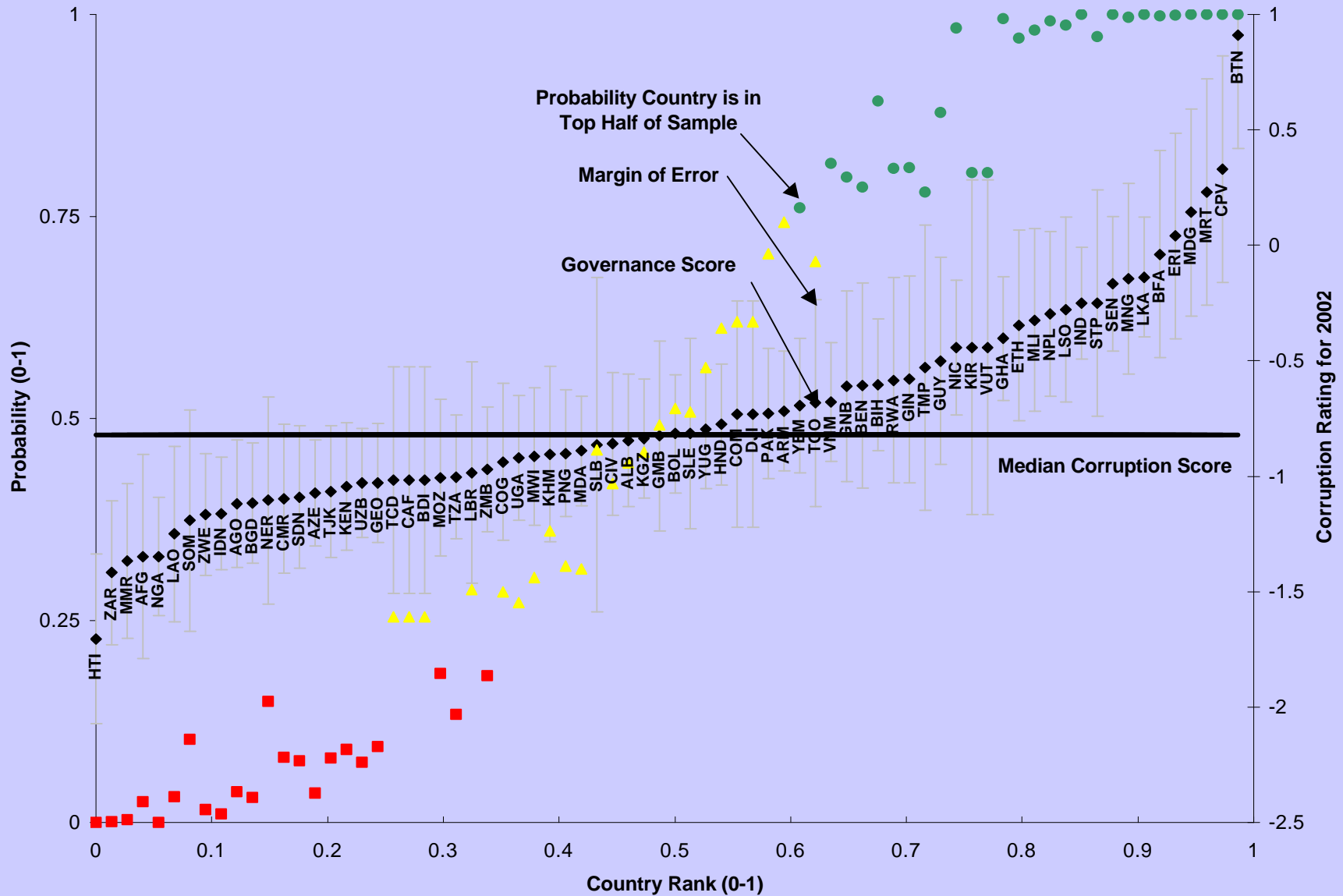
## *Example of U.S. Millennium Challenge Account*

To be eligible for MCA funds, potentially-eligible IDA countries with per capita GDP less than \$1435 must score above median in half the indicators in three categories:

- Ruling Justly: Six indicators, including Voice, Government Effectiveness, Rule of Law, Control of Corruption
- Investing in People: Four indicators covering health and education spending and outcomes
- Promoting Economic Freedom: Six economic policy indicators including Regulatory Quality

*and must score above median on Control of Corruption*

# Margins of Error and MCA



# Margins of Error and the MCA

- Targeting aid towards countries with good institutions and policies makes sense
- Transparent publicly-available eligibility criteria encourages monitoring, accountability, progress

*at the same time...*

- Have to consider margins of error, especially with “hard” in-or-out rules like corruption hurdle: focus on ‘yellow light’ group just below the median
- Gather more information, country diagnostics, etc.
- Aggregate indicators advantage on margins of error
- Margins of error a major challenge for all other indicators as well -- which also need to address issue of country coverage gaps and timeliness

# Recommendations for MCA Eligibility Rules

- Important to take margins of error seriously (for all indicators) – non-trivial risk of misclassifying countries
- Using multiple indicators reduces misclassification risk, but it remains substantial for “hard” corruption hurdle – *towards softening such ‘hard’ rule*
- Rely on additional sources of data, especially for borderline cases just above or below the cutoff – *complement with diagnostics*
- Measuring progress over time is difficult but important
- Maximizing country coverage for all indicators is key

# Summary and Conclusions

- Six dimensions of governance, covering 199 countries for 1996, 1998, 2000, and 2002 -- data from 25 sources
- Data is informative, but margins of error, explicitly measured, need to be taken seriously
- Are there *global trends* in governance? – *Not improving*
- Methodological issues in construction/use of indicators:
  1. Why subjective data?: *Availability, Coverage, and it Matters*
  2. Margins of error for objective indicators: *Significant*
  3. Ideological biases in expert assessments? – *Not really*
  4. Margins of error w/r aid allocation rules: *Take seriously*
  5. Relative measures penalize *absolute* improvements?: *No*
- Aggregate cross-country indicators do inform, but are a blunt tool: Specific policies/strategies should also be informed by in-depth country-specific diagnostics – *and triangulate within diagnostics*

# References and Links to full papers and further materials

- Governance Matters III:  
<http://www.worldbank.org/wbi/governance/pubs/govmatters3.html>
- Governance Matters:  
<http://www.worldbank.org/wbi/governance/pubs/govmatters.html>
- Aggregating Gov Indicators:  
<http://www.worldbank.org/wbi/governance/pubs/aggindicators.html>
- Growth without Governance:  
<http://www.worldbank.org/wbi/governance/pubs/growthgov.html>
- Governance Indicators Dataset:  
<http://www.worldbank.org/wbi/governance/govdata2002/>
- Governance Diagnostic Capacity Building:  
<http://www.worldbank.org/wbi/governance/capacitybuild/>