

A Service of



Leibniz-Informationszentrum Wirtschaft Leibniz Information Centre

Ivanyna, Maksym; Shah, Anwar

Working Paper

Citizen-centric governance indicators: Measuring and monitoring governance by listening to the people and not the interest groups

BGPE Discussion Paper, No. 77

Provided in Cooperation with:

Friedrich-Alexander University of Erlangen-Nuremberg (FAU), Bavarian Graduate Program in Economics (BGPE)

Suggested Citation: Ivanyna, Maksym; Shah, Anwar (2009): Citizen-centric governance indicators: Measuring and monitoring governance by listening to the people and not the interest groups, BGPE Discussion Paper, No. 77, Friedrich-Alexander-Universität Erlangen-Nürnberg, Bavarian Graduate Program in Economics (BGPE), Nürnberg

This Version is available at: https://hdl.handle.net/10419/73410

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.





BGPE Discussion Paper

No. 77

Citizen-centric governance indicators: Measuring and monitoring governance by listening to the people and not the interest groups

Maksym Ivanyna **Anwar Shah**

July 2009

ISSN 1863-5733

Editor: Prof. Regina T. Riphahn, Ph.D. Friedrich-Alexander-University Erlangen-Nuremberg

© Maksym Ivanyna, Anwar Shah

Citizen-centric governance indicators: Measuring and monitoring governance by listening to the people and not the interest groups

Maksym Ivanyna

Bavarian Graduate Program in Economics (Regensburg, Germany) and World Bank Anwar Shah *† World Bank

May 26, 2009

Abstract

Governance indicators are now widely used as tools for conducting development dialogue, allocating external assistance and influencing foreign direct investment. This paper argues that available governance indicators are not suitable for these purposes as they do not conceptualize governance and fail to capture how citizens perceive the governance environment and outcomes in their countries. This paper attempts to fill this void by conceptualizing governance and implementing a uniform and consistent framework for measuring governance quality across countries and over time based upon citizens' evaluations.

Keywords: citizen-centric governance indicators, rule of law, fair governance, service delivery, quality of life, trust in government, government oversight, public opinion

JEL-classification: H10, H11, H83, I31, O10

^{*}The views expressed in this paper are those of the authors alone and should not be attributed to World Bank and its Executive Directors. Authors are grateful to the participants of Advanced Academic Update "Governance Indicators and Assessments - Impact and Future Trends" (Maastricht Graduate School of Governance, Netherlands, January 21-22, 2009), Bavarian Graduate Program in Economics Research Workshop (Bayreuth, Germany, January 22-23, 2009) for comments on earlier versions of this paper.

[†]Comments are welcome and should be addressed to: ashah@worldbank.org.

1 Introduction

Since the publication of pioneering work on measuring governance quality by Huther and Shah (1998), there has been a proliferation of composite worldwide governance indicators purporting to measure various aspects of governance quality. The growth of these indicators have been spurned by generous support by the development assistance community especially multilateral development finance agencies and infinite appetite of media and the academic community for governance assessments and country rankings. Governance indicators are now being used as tools for conducting development dialogue, allocating external assistance and influencing foreign direct investment. Each new indicator series are now released with great fanfare from major industrial country capitals and the popular press uses these indicators to name and shame individual countries for any adverse change in rank order over time or across countries. The development assistance community is increasingly using these indicators in making critical judgments on development assistance. The World Bank's International Development Association (IDA) allocation - a window of subsidized lending to the developing world and the United States Agency for International Development's Millennium Challenge Account uses various governance indicators as criteria for allocating external assistance. At the same time, some of the recent findings of these indicators have also led to much controversy and acrimony and thereby contributing to complicating the dialogue on development effectiveness. In view of the influential nature of these indicators and potential to do harm if judgments embodied in these indicators are biased and erroneous, it is imperative that they capture critical dimensions of the quality of governance and all countries are evaluated using uniform and reasonably objective assessment criteria.

Do the existing indicators meet this test? While the literature on this subject is woefully inadequate and thin, four widely used indicators namely the World Bank's Worldwide Governance Indicators (WGIs), Overseas Development Institute's World Governance Assessments (WGAs), Mo Ibrahim Foundation's Indexes of African Governnace (IIAGs) and the United Nations Economic Commission for Africa's African Governance Report Indicators (AGRIs) - all lack a conceptual framework on governance, lack of citizen-based evaluations and time and country assessment inconsistencies to make their rankings suspect. A number of recent papers have been especially critical of WGIs for lacking "concept" (implying lack of clarity in conceptualization) and "construct" (implying lack of clarity in measurement) validity, sample bias (mostly interest group views), lack of transparency and time inconsistency of definitions and measurements (see Arndt, 2008, Arndt and Oman, 2006, Kurtz and Schrank, 2007, Iqbal and Shah, 2008, Langbein and Knack, 2008, Schrank and Kurtz, 2008, Thomas, 2006). One of the most important limitation common to all available composite indexes of governance is that they fail to capture how citizens perceive the governance environment and outcomes in their own countries.

For governance assessments to be useful for policy purposes, they must conceptualize governance and provide uniform and consistent criteria for measuring gov-

 $^{^{1}\}mathrm{See}$ Iqbal and Shah (2008) for examples of indefensible country ranking by one of the more widely used indicators

ernance across countries and over time. Foremost concerns for such measurement should be citizens' evaluation of governance environment and outcomes in their own countries supplemented of course by objective indicators of the same. For development assistance purposes, these indicators could be supplemented by experts-based evaluations. There is some work available on objective indicators as done by the Doing Business indicators of the World Bank and on experts-based evaluations as done for the Global Integrity Index. The most important void in our knowledge is how citizens view governance environment and outcomes in their countries. This paper takes a first step to fill that void. The rest of the paper is organized as follows. Section 2 discusses conceptual issues in measuring governance, specifies a citizen-centric conceptual framework on measuring governance quality. Section 3 presents an empirical framework, data sources and aggregation techniques. Section 4 presents preliminary results. In Section 5 we discuss the robustness of our results, as well as the contributions and limitations of the empirical approach. A concluding section outlines future research agenda.

2 Conceptualizing and measuring governance quality in a comparative context

Governance is a fuzzy yet fashionable buzzword and its use in the literature has exploded in recent years. Dixit (2008) notes that there were only 4 citations in EconLit in the period 1970-1979 compared to 15455 in the most recent period of 2000-2007 and currently Google lists more than 152000 pages of this literature. According to American Heritage, Random House and Merriam Webster dictionaries, governance is equated with government and is defined as the "exercise of authority and control" or "a method or system of government and management" or "the act, process or power of governing". Huther and Shah (1998) defined governance as "a multi-faceted concept encompassing all aspects of the exercise of authority through formal and informal institutions in the management of the resource endowment of a state. The quality of governance is thus determined by the impact of this exercise of power on the quality of life enjoyed by its citizens" (p.2). The World Bank Governance and Anti-corruption (GAC) Strategy (World Bank, 2007) defines it as "the manner in which public officials and institutions acquire and exercise the authority to shape public policy and provide goods and services" (p.3).

For our current purpose, none of the above definitions with the sole exception by Huther and Shah, is helpful in serving as an operational guide to carry out a comparative review of quality of governance across countries or even of one country over time. This is because of their singular focus on the processes/institutions which do not lend themselves to easy or fair comparability across countries and sometimes not even within one country without conducting deeper analytical studies. There can be little disagreement that same processes and institutions can lead to divergent governance outcomes just as dissimilar processes could yield similar outcomes in two different countries. For example, anti-corruption agencies in countries with fair governance helps curtail corruption but in countries with poor governance prove either to be ineffective or worse a tool for corrupt practices and victimization (Shah,

2007). As another example, budget secrecy prior to its presentation to the parliament is just as important under parliamentary form of government as in Canada, UK, India, New Zealand, as open and participatory budget determination process is to presidential form of government as in the USA. There can be little disagreement that both types of processes have the potential to advance public interest but may succeed or fail in different country circumstances. During the past two decades, we have also seen that single party dominant political systems in China, Malaysia and Singapore have shown dramatic results in improving governance outcomes whereas pluralistic party systems have also shown positive results in other countries such as Brazil and India. Similarly monarchy has shown positive results in UK but unwelcome results in Nepal. Even similar electoral processes do not always lead to representative democracy and may instead yield aristocracy (elite capture) in some countries and corrupt oligarchies in others. In fact, Aristotle's main argument for elections was based upon the premise that these would produce aristocracy, a form of government he considered superior to median voter rule (see Azfar, 2008). Andrews argues that such "good governance picture of effective government ... constitutes a threat, promoting isomorphism, institutional dualism and "flailing states" and imposing an inappropriate model of government that "kicks away the ladder" today's effective government climbed to reach their current state." (p.2) In any case, such comparisons of processes and institutions out of their context are almost always ideologically driven and value laden and could not be acceptable as unbiased professional (scientific) judgments. This also explains that while citizens of Bangladesh, China, India and Malaysia over the last decade have experienced remarkable improvement in governance outcomes, available primary indicators fail to capture these accomplishments due to their focus on processes at the neglect of outcomes. Even for the world as a whole, the information revolution by letting the sun shine on government operations, has brought about dramatic improvements in government accountability, but the WGIs with their on one-size-fit all vision of the world, have consistently failed to notice or recognize such a mega change. These indicators rank China in the lowest percentile on voice and accountability but according to the former Auditor General of Canada, China has the most effective public accounts committee anywhere which has a track record of holding government to account for malfeasance (Dye, 2007). Furthermore local governments in China have relatively much larger role in public service provision than most countries. Local governments below the provincial level account for about 54% of consolidated public expenditures in China compared to about 4% in India and about 27% in OECD countries (see Shah and Shah, 2006). Thus having the decision making closer to people, directly elected local governments, and party oversight of local government performance - all work to create a system of voice and accountability that is quite unique to China and not easily comparable to other countries (see Qiao and Shah, 2006). China has also demonstrated superior government effectiveness through its unique and unparalleled success in alleviating poverty and improving the quality of life of its citizens over the past two decades. About two decades ago, China had about 35% of its population below poverty level compared to less than 2% in 2006 (see Shah and Shen, 2007). In conclusions comparisons of governance institutions requires deeper analytical work through in-depth comparative studies rather than aggregate indicators. Such indicators are more usefully used to compare governance outcomes and complementary analytical studies of institutions and process can be used to explain varying outcomes. Of course, governance outcomes also assume commonly shared values but it is relatively less problematic than one-size fit-all prescriptions on processes. To have meaningful governance comparisons across countries and over time, one needs to have concepts which are somewhat invariant to time and place and are focused on citizens' evaluations rather than interest groups' views. To this end, we define governance as an exercise of authority and control to preserve and protect public interest and enhance the quality of life enjoyed by citizens. Note that this definition encompasses both the governance environment (quality of institutions and processes) as well as governance outcomes.

2.1 Towards a simple framework for assessing country governance quality

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

- Responsive Governance. The fundamental task of governing is to promote and pursue collective interest while respecting formal (rule of law) and informal norms. This is done by government creating an enabling environment to do the right things that is it promotes and delivers services consistent with citizen preferences. Further, the government carries out only the tasks that it is authorized to do that is it follows the compact authorized by citizens at large.
- Fair (equitable) Governance. For peace, order and good government, the government mediates conflicting interests, is focused on consensus building and inclusiveness and ensures a sense of participation by all and protection of the poor, minorities and disadvantaged members of the society.
- Responsible Governance. The government does it right i.e. governmental authority is carried out following due process with integrity (absence of corruption), with fiscal prudence, with concern for providing the best value for money and with a view to earning trust of the people.
- Accountable Governance. Citizens can hold the government to account for all its actions. This requires that the government lets sunshine in on its operations and works to strengthen voice and exit options for principals. It also means that government truly respects the role of countervailing formal and informal institutions of accountability in governance.

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

Table 1: Governa	nce outcomes and relevant considerations
Governance outcome	Relevant considerations
Responsive governance	 public services consistent with citizen preferences; direct possibly interactive democracy; safety of life, liberty and property; peace, order, rule of law; freedom of choice and expression; improvements in economic and social outcomes; improvements in quantity, quality and access of public services; improvements in quality of life;
Fair governance	 fulfillment of citizens' values and expectations in relation to participation, social justice, and due process; access of the poor, minorities and disadvantaged groups to basic public services; non-discriminatory laws and enforcement; egalitarian income distribution; equal opportunity for all;
Responsible governance	 open, transparent and prudent economic, fiscal and financial management; working better and costing less; ensuring integrity of its operations; earning trust; managing risks; competitive service delivery; focus on results;
Accountable governance	 justice-able rights and due process; access to justice, information; judicial integrity and independence; effective legislature and civil society oversight; recall of officials and rollbacks of program possible; effective limits to government intervention; effective restraints to special interest capture.

Source: Shah (2008)

The above simple framework captures most aspects of governance outcomes especially those relevant for development policy dialogue and can serve as a useful starting point for a consensus framework to be developed. In any event, there can be little disagreement that one cannot embark on measuring governance quality without first defining and defending an appropriate framework that measures governance - a point also emphasized by Thomas (2006) and the European Commission (see Nardo et al., 2005). Once a consensus framework is developed then one needs to focus on only a few key indicators that represent citizens' evaluations and could be measurable with some degree of confidence in most countries of the world and could be defended for their transparency and reasonable degree of comparability and objectivity (see Andrews and Shah, 2005 for details and relevant indicators of an approach that emphasizes citizen-centric governance and Shah and Shah, 2006 for citizen-centered local governance and relevant indicators.) . Having an enormous number of indicators which could not be scrutinized, is nothing but a distinct disadvantage for a measure that aims for wider acceptance and confidence.

Implementation of the above framework requires a worldwide survey with uniform questionnaire honing on the four dimensions of governance identified above across countries. Given that such a survey is not available and costly to commission, in the following section, we take a pragmatic approach based upon available survey data to develop rough indexes of governance quality.

3 Citizen-centric governance: Empirical framework

Following Table 1, public interest is characterized by four dimensions of governance outcomes - responsive governance, fair governance, responsible governance, and accountable governance. Each of these categories is split further on sub-categories in order to characterize a concrete governance outcome (such as improvements in quality of life, safety, peace, etc.) Public opinion survey, with the questions assigned to each subcategory, should be used for the assessment of governance.

The procedure of the assessment consists of the two main steps. First, data source - the raw data from inter-country public opinion survey - is chosen. The responses on questions in the survey, which characterize governance outcomes, are recorded. Second, the responses are aggregated in order to achieve governance index for each country from the sample.

In what follows, we consider both steps in detail.

3.1 Data

Reliable, comprehensive and consistent through time and space source of data is essential for qualitative estimation of citizen-centric governance indicators (CGIs). With an additional requirement of being publicly accessible and, preferably, free of charge, such data source hardly exists at present. There is a database of governance-related questions included into different surveys across the world (Governance Surveys Database published by the World Bank). In principle, each of these questions

could be included into our estimation (questions taken separately from different polls) if the data is available. However, as the experiments in the construction of surveys suggest (see Bertrand and Mullainathan, 2001, for examples), even the small difference in the formulation of a question (assigned to the same sub-criterion) or the sequence of questions in a survey may bring significant discrepancies in the responses for the same country and same sub-criterion. Therefore, we decided to use only one data source, which covers sufficient amount of countries. Effectively it means, that almost the same questionnaire is used in all participating countries.

The principal data source for our further analysis is the World Values Survey (WVS) project, conducted by WVS Association (see WVS, 2008). Table A2 shows its characteristics in comparison with other potential data sources. WVS provides an acceptable compromise of consistency and coverage for showing an initial picture of citizen-centric governance indicators. On the one hand, WVS publishes quite outdated information (with the time lag of 2-3 years after actual survey was taken), and only a few questions from this survey are relevant for our purposes (since the survey is about cultural values, not governance). On the other hand, WVS provides quite comprehensive geographical coverage (97 countries with all major economies included) combined with acceptable time coverage and questionnaire.

The coding (which is used further in text and in the dataset) and questions assigned to each sub-criterion of governance are presented in the Table A1 of Appendix. As one can see, for a few sub-criteria, specified in the Table 1 of the paper, no survey questions are available. This is a drawback of WVS, as this survey was not constructed to evaluate governance. However, each governance outcome has a sufficient representation by questions in order to get reasonable estimates.

Based on the data from WVS (questions from the Table A1 of Appendix), as well as from the other freely available data sources (AFR, ASB, TLGCB - see Table A2 for notation), a unique dataset was constructed, which can be used for the evaluation of citizen-centric governance indicators by any researcher. 421994 people's responses (256152 of them by WVS) on 74 different questions (20 from WVS) are recorded in this dataset. 125 countries are covered, 97 of them by WVS. The records in the dataset can be sorted by the gender, income, education of a respondent, as well as by the sub national administrative unit of his/her residency.

For the reasons explained above our main estimation procedure is based on 3 waves of the World Values Surveys depending on the year when the surveys were taken. Wave 1 includes countries surveyed from 1994 to 1998, wave 2 - from 1999 to 2004, and wave 3 - from 2004 to 2008. In addition to questions from WVS, in the wave 3 we also use one question about corruption from Transparency International Global Corruption Barometer (see TI, 2005).

As an alternative to the WVS, we apply additional data sources in our estimation of citizen-centric governance indicators. In particular, in this paper we report the results when using Gallup World Poll data points, which are available freely from the Worldwide Governance Indicators (WGI) project (see WBI, 2008).² 4 questions from GWP are used in WGI. While this coverage is quite limited, yet it allows us to estimate 3 governance outcomes for a wide range of countries.

²Gallup World Poll, described in the Table A2, is itself very expensive (28 thousands US Dollars per year), and therefore cannot be used as a base for a rigorous, replicable research

3.2 Aggregation

The underlying assumption of our empirical investigation is that the quality of governance in a given country directly affects governance outcome, which is being analyzed in a certain survey question. Thus, the answers of survey respondents - citizens of this country - are better for each question the higher is the quality of governance in the country. At the same time, answers of the respondents are random variables, which are subject to personal errors:

$$s_{ijk} = \beta_k g_i + \epsilon_{ijk} \implies g_i = \frac{1}{\beta_k} s_{ijk} - \frac{1}{\beta_k} \epsilon_{ijk}, \tag{1}$$

where i=1,...,M is the index of a country, $j=1,...,N_i$ is the index of a respondent (total number of respondents, obviously, changes from country to country), and k=1,...,K is the index of a question in a survey (thus of a particular governance outcome). s_{ijk} is the answer on question k of the respondent j in the country i. Each response was normalized by us on a scale from 0 to 1, with 0 being the worst answer, and 1 being the best answer. g_i is the quality of governance in the country i. It does not depend neither on concrete respondent, nor on specific question. Coefficient β_k reflects a degree, to which governance affects the answer of a respondent. Note that it does not depend on country or respondent. Finally, $\epsilon_{ijk} \sim N(0, \sigma_{ik}^2)$ is the personal random error of the respondent j in the country i, which may also depend on a specific question. Each error is independently normally distributed with zero mean and the variance σ_{ik}^2 , which may depend on country and specific question.

The expression for g_i can be rewritten:

$$g_i = w_k s_{ijk} - w_k \epsilon_{ijk}, \tag{2}$$

where $w_k = \frac{1}{\beta_k}$ - are the question-specific weights assigned to each question. The weights are normalized to add up to one - $\sum_{k=1}^{K} = 1$ - so that g_i is between 0 and 1 for each country. For our main estimation, and for further comparative analysis, the weights are exogenously chosen and are reported in the Table ?? of the Appendix. They reflect the relative importance of every question in assessment of governance (i.e. "satisfaction with life in general" is clearly more comprehensive than "satisfaction with health" or "satisfaction with environment"), as well as alleviate certain data deficiencies (i.e. European countries were not asked some questions in the second wave of WVS, so these questions received lower weight). At the same time, the weights can be easily changed to tailor one's specific research agenda or check the robustness of the results.

Given our assumptions, the most efficient, unbiased, and consistent estimator for the governance in country i is just the sample mean of weighted averages of citizens' responses, the estimator for the governance's variance is adjusted sample variation:

$$\hat{g}_i = \frac{1}{N_i} \sum_{j=1}^{N_i} \sum_{k=1}^{K} w_k s_{ijk}, \quad var(g_i) = \sum_{k=1}^{K} w_k^2 \frac{1}{N_i - 1} \sum_{j=1}^{N_i} \left(s_{ijk} - \frac{1}{N_i} \sum_{j=1}^{N_i} s_{ijk} \right)^2. \tag{3}$$

We gave up more sophisticated data mining approaches (e.g. principal component

analysis, canonical analysis or random projections) for the sake of transparency and simplicity. The choice of weights or aggregate procedure does not significantly change the appearing governance picture (see Section 5). Our procedure is maximally open and simple in order to allow for a further research and analysis. Besides, in addition to the governance scores we report and analyze the aggregate responses on each question, which makes our indicators "actionable", and allows drawing the conclusions, which are completely independent of weights and aggregation procedure.

4 Citizen-centric governance: Preliminary rankings

Based on the estimation procedure described above we report our results in this section. First, we analyze citizen-centric indicators (CGIs) as well as responses on separate questions in all countries in 3 waves of World Values Surveys and Gallup World Poll. Then we compare the indexes by groups of countries, through time (across 3 waves), and with other governance indicators (in particular, Worldwide Governance Indicators). In the last subsection, we give examples of sub-national CGIs in several countries.

4.1 Country rankings: Waves 1 to 3

The countries' citizen-centric governance indicators (CGIs) are presented on the Figure 1 and Figure 2. On the first figure we show the estimations based on the data from World Values Survey, for the second figure we use the data from Gallup World Poll (see Section 3.1 for details about data sources). All 3 waves of WVS surveys are shown on the Figure 1: (a) Wave 1 - for surveys taken between 1994 and 1998 (53 countries), (b) Wave 2 - for surveys taken between 1999 and 2004 (71 country), (c) Wave 3 - for surveys taken between 2005 and 2008 (51 country).

The maps of citizen-centric governance evaluations are, in our opinion, more convenient tool for analysis than the tables with more than 100 records, though those are also available from authors at the request. On the Figure 1 we split our sample of countries into 3 broad categories (6 categories on the Figure 2): from dark-green high-governance-quality countries to light-green low-governance-quality countries. While developed countries (especially Scandinavian countries and Switzerland) show stable and high grades, it is rather unexpected that East Asian countries (especially, Vietnam, China) are relatively high rated. In some countries of the Middle East (Jordan, Saudi Arabia) the popular support of the government is also "unexpectedly" high. At the same time, countries of Central and Eastern Europe are always in the lowest percentiles of the samples.

In the Figure 3 we compare citizen-centric governance indicators with corresponding Worldwide Governance Indicators (WBI, 2008), which are considered to be the "gold standard" of governance assessment by the media. The scale changes from dark-green for countries, which were severely underestimated by WGIs, to dark-red for countries, which were greatly overestimated. 27 out of 82 countries in

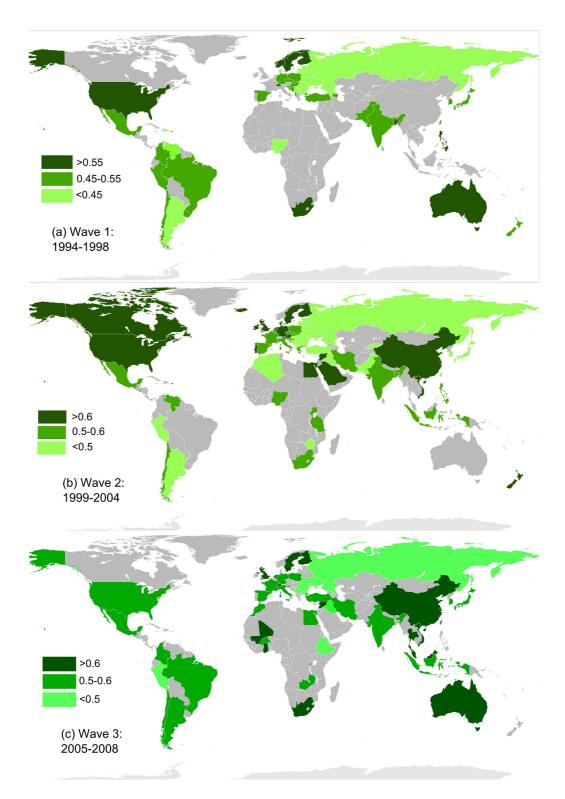


Figure 1: Citizen-centric governance indicators (data source - WVS, waves 1-3)

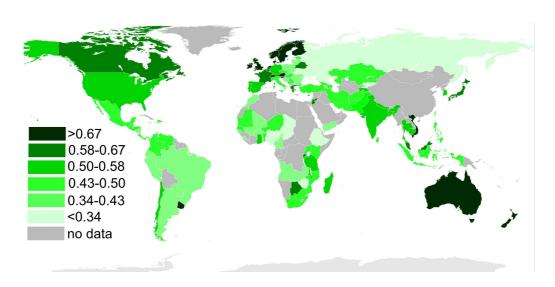
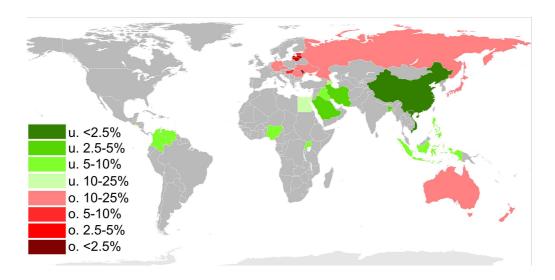
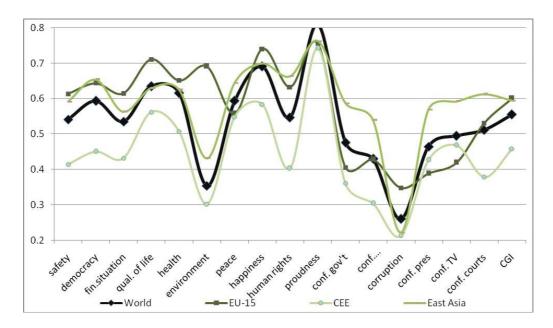


Figure 2: Citizen-centric governance indicators (data source - GWP)



Note: u. X-Y% means that the country was underestimated by WGI in comparison to CGI at the significance level between X and Y%; o. X-Y% means that the country was overestimated by WGI in comparison to CGI at the significance level between X and Y%. The time period considered is 1994-2005, aggregate CGIs are taken, WGIs are averaged over all 6 components

Figure 3: CGI vs. WGI (Worldwide Governance Indicators)



Note: Averages on each governance outcome (as is defined in the Table A1) in the selected groups of countries: World - the whole sample, EU-15 - countries from European Union before the extension of 2004, CEE - Central and Eastern European countries, East Asia - East Asian countries (China, Taiwan, India, Indonesia, Korea, Malaysia, Vietnam, Thailand)

Figure 4: WVS wave 3: governance outcomes by groups of countries

our sample were over- or underestimated at a significance level less than 25% (9 at a level less than 5%) by WGIs in comparison to our assessments. The pattern described in the paragraph above is supported: Middle East and East Asian countries are mostly underestimated (with China, Vietnam, Iran and Saudi Arabia being the leading outliers), while Central and Eastern European countries are too praised by WGI (Latvia, Lithuania, Moldova and Hungary being the leading outliers). Apparently, our indicators reflect last decade's obvious successes of East Asian and Middle East countries in economic outcomes. At the same time, WGIs rely more on the Anglo-Saxon institutional design of a government, which does not always lead to desired governance outcomes given local historical and institutional contexts (see our discussion in the Introduction).

To analyze the disaggregate data, in the Table 2 we depict top performing countries in each governance outcome separately. It can be seen that Western European countries dominate in the group of outcomes ascribed to Responsive Governance, with the questions about overall life satisfaction, satisfaction with the health, environment, happiness. At the same time, the categories related to the trust and confidence in government, media, courts, and army are dominated by the East Asian (Vietnam, China, India, Malaysia, etc.), some African (Mali, Rwanda, etc.), and Middle East (Jordan, Egypt) countries.

The pattern described above can be clearly seen on the Figure 4. Here we depict regional averages by each governance outcome (based on the data from the third wave of WVS). It can be seen that the curve of the EU-15 group - "old" members of the European Union - is almost always above other curves in the dimension

Table 2: WVS wave 3:	top performers by each governance outcome
Governance category	Top-performers
Responsive governance	
safety of life, order, rule of law freedom of choice and ex-	Vietnam, Jordan, Rwanda, Finland, Australia Chana Vietnam Jandan Switzerland Swa
pression	Ghana, Vietnam, Jordan, Switzerland, Sweden
improvements in economic and social outcomes	Switzerland, Mexico, Sweden, Finland, Netherlands
improvements in quality of life: general	Colombia, Mexico, Switzerland, Finland, Argentina
improvements in quality of life: health	Jordan, Andorra, Malaysia, Switzerland, Cyprus
improvements in quality of life: environment	Sweden, Germany, Finland, Slovenia, Switzerland
peace happiness	Vietnam, Jordan, Turkey, India, Mali Mexico, UK, Sweden, Trinidad and Tobago,
nappmess	Switzerland
Fair governance	
social justice, respect for human rights	Finland, Vietnam, Switzerland, India, Ghana
government represents the whole country	Ghana, Trinidad and Tobago, Colombia, Mali, Thailand
Responsible governance	
earning trust: executive branch	Vietnam, Jordan, China, Malaysia, Mali
earning trust: legislative branch	Vietnam, China, Rwanda, Jordan, South Africa
corruption	Netherlands, Spain, Finland, Switzerland, UK
Accountable governance	
access to information, independent mass media - press	Vietnam, India, Jordan, China, Rwanda
access to information, independent mass media - television	Vietnam, India, Egypt, South Africa, Iraq
judicial integrity and independence	Vietnam, Jordan, Rwanda, Malaysia, Turkey

Note: For each governance outcome, assessed by questions from Table A1, top performers are 5 countries with the highest average response

of Responsive Governance (till the "happiness" point on the X-axis). When it comes to the questions about Responsive and Accountable Governance (confidence in parliament, government, press, TV, courts) the curve steeps down. The curve of the East Asian countries, while mostly above the world's average, rises above the curve of EU-15 only in trust-related dimensions. Similar properties (though with somewhat lower averages) have the curves of Middle East and African countries (the curves are not depicted in the figure to keep at least some tractability). The curve of Central and Eastern European countries (CEE) is always below East Asian curve, as well as the world's average. Particularly low (relative to others) citizens of CEE countries evaluate their confidence in police ("safety" on X-axis) and respect for human rights in their respective countries ("human rights" on the X-axis).

The fact that people in the East Asia, Middle East and Africa trust their governments more than the people in developed countries of Western Europe and North America may not only reflect the overall public satisfaction (or dissatisfaction) with governance outcomes. In depressed countries, it may also be the result of people's fear to disclose their true opinion about government. Alternatively, when mass media in a country are controlled by the government, people in this country may be indoctrinated to believe and trust those on the top. In the Section 5.2 we analyze these possible effects and their magnitude for the countries from our sample.

4.2 Intertemporal comparison

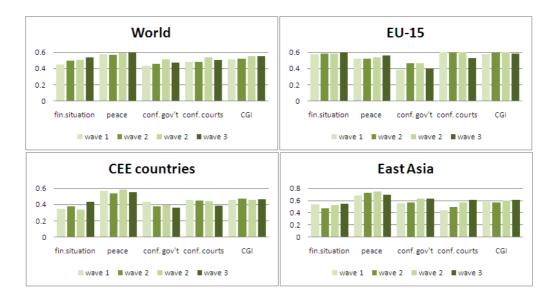
The consistent through time questionnaires of the WVS and repeated surveys during three waves allow us to assess the progress of the governance in certain countries. In particular, citizens of 41 country were surveyed both during the first wave of WVS (1994-98) and during the second wave (1999-2004). Surveys both from the second wave and the third wave (2005-2008) are available for 33 countries.

In the Table 3 we report the countries, which achieved the biggest progress in each governance outcome (both from Wave 1 to Wave 2, and from Wave 2 to Wave 3). Not surprisingly, the list is dominated by the developing and the countries in transition - of 110 positions (10 governance outcomes plus CGIs themselves) only 14 are taken by developed countries (Spain and Germany between waves 1 and 2, and Japan between waves 2 and 3). These numbers clearly reflect the fact of life level increase and stable economic growth in certain parts of the world. Especially it concerns the speedy economic recovery of CEE countries after the horrible post-communist "hangover" of the 90s. The most commonly mentioned countries are Nigeria, Venezuela, Latvia, Bangladesh, Moldova between waves 1 and 2, and Turkey, Russian Federation, Jordan, India and South Africa between waves 2 and 3.

The governance in the world (over the sample of countries surveyed by WVS) statistically significantly (at the level of less than 1%) increased from wave 1 to wave 2 (see Figure 5) - in contrast to the WGI's world of unchanging governance quality, - but practically did not change from wave 2 to wave 3. As it can be seen from the figure the main driver of the growth in world's quality of governance was increasing (in practically all regions) satisfaction of the citizens with their financial situation. This trend was kept from wave 2 to wave 3 as well, but the overall

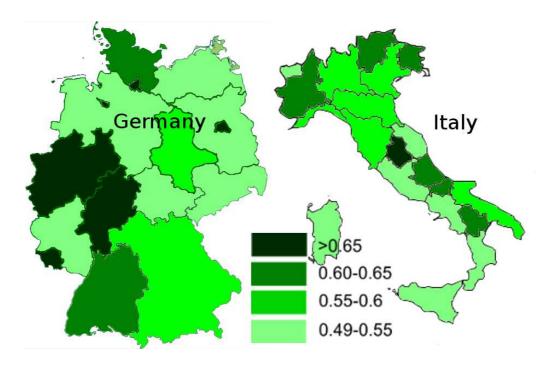
Table 3: CGI (V	VVS): top performers by t	he progress in time
Governance outcome	Top-performers: Wave 1 to Wave 2	Top-performers: Wave 2 to Wave 3
Total CGI	Nigeria, Germany, Venezuela, Latvia, Finland	• /
Responsive gover-		
nance		
safety of life, order, rule of law	Macedonia, Bangladesh, Nigeria, Venezuela, Latvia	India, Morocco, Japan, China, Korea
improvements in eco- nomic and social out- comes improvements in quality of life: general	Venezuela, Moldova, Spain, Nigeria, Argentina Estonia, Bulgaria, Moldova, Venezuela, Slovenia	Turkey, Jordan, Argentina, Korea, South Africa Turkey, Jordan, Russian Federation Ukraine, Moldova
improvements in quality of life: health	Nigeria, South Africa, Mexico, Bangladesh, BiH	Moldova, Jordan, Argentina, Indonesia, Morocco
peace	Bangladesh, Latvia, India, New Zealand, Macedonia	
Responsible gover-		
earning trust: executive branch	Venezuela, Nigeria, New Zealand, Spain, Albania	
earning trust: legislative branch	Nigeria, New Zealand, Venezuela, Spain, Ger- many	
Accountable gover- nance		
access to information, in- dependent mass media - press	Bangladesh, Germany, Slovenia, Sweden, India	Bulgaria, Morocco, Vietnam, Jordan, India
access to information, in- dependent mass media - television	Albania, India, Bangladesh, Nige- ria, Venezuela	Morocco, Iraq, Vietnam, Jordan, Egypt
judicial integrity and in- dependence	Macedonia, Bangladesh, Nigeria, Venezuela, Latvia	India, Japan, Morocco, China, Turkey

 $Note: Top\ performers$ - in each governance outcome (as defined in the Table A1) 5 countries with the biggest mean difference between corresponding waves



Note: Progress in time for some governance outcomes and CGI in 4 regions. First 2 columns for each outcome compare wave 1 and wave 2 over common sample of countries, columns 3 and 4 compare wave 2 and wave 3 over common sample of countries. Governance outcomes included are: "satisfaction with financial situation in the household", "peace" (confidence in the army), "confidence in government", and "confidence in courts". The regions: World - all countries in the samples, EU-15 - European Union members before the extension of 2004, CEE countries - Central and Eastern European Countries, East Asia - East Asian countries.

Figure 5: CGI (WVS) waves 1-3: progress over time by regions



Note: left side - Germany, survey of 2006; right side - Italy, survey of 2006. The scale is common to both countries.

Figure 6: Subnational CGI (WVS): examples

progress was apparently mitigated by the fall of confidence in governments, courts, army, etc. in developing and countries in transition (though CEE countries still ended up progressing from wave 2 to wave 3).

4.3 Subnational CGIs

Our estimation procedure as well as dataset collected allows us to extend citizencentric governance indicators from countries to their subnational units. The idea is to aggregate the citizens' responses not over the whole country, but over it's jurisdictions. For the Wave 3 of WVS there are 1121 of them in the sample - usually the second tier of a country's administrative structure (in some countries - groups of second tier jurisdictions).

The examples of some countries are given in the Figure 6. On the left we depict Germany, and on the right - Italy. Both countries were surveyed in 2006. In Germany rich industrial lands³ of Hessen, Nordrhein-Westfalen and Saarland together with independent cities of Bremen, Hamburg and Berlin are the most satisfied with their governments. At the same time, the scores are much lower in the poorer eastern part of the country - only in Sachsen-Anhalt citizen's gave their government more than 0.55 (the score of the land is 0.56). Surprising are the average scores received by the governments of rich southern states - Baden-Würtemberg and Bayern.

The relative correspondence between richness of a jurisdiction and it's govern-

³Länder in German - second tier jurisdictions in the country

ment's score is also kept in Italy. Most regions of the rich country's North score more than 0.55. At the same time, most of the poorer South - with the exception of Abruzzo, Molise, and Basilicata regions - is below 0.55.

Subnational CGIs is, to our knowledge, the first attempt to assess governance at less aggregate than the country level. Analyzing these may prove to be helpful in empirical research on decentralization and governance, decentralization and welfare, difference between capital and non-capital regions, industrialized and rural regions, etc.

5 Robustness

Combination of survey data with the simple aggregation procedure raises quite a few questions about the validity and reliability of our results. In this section we are trying to resolve some of them. First, we provide some arguments in favor of our aggregation procedure and overall analysis of the data. Second, we give a critical assessment of the data we have available.

5.1 Alternative aggregation techniques

Transparency, simplicity and possibility to tailor the assessment procedure for one's research agenda are the main reasons behind adopting our aggregation procedure - taking weighted averages of citizens' responses. Besides, some questions are relatively more important and comprehensive for assessing governance, which cannot be detected by mechanized data mining algorithms. In addition, many of our findings and conclusions concern directly separate governance outcomes (responses on a separate question), which does not depend on aggregation procedure.

Nevertheless, we use alternative aggregation techniques to test the robustness of our results. In particular, we apply uniform weights to our data, as well as we use averaging over percentile rankings (the way it is done in the Doing Business project - Djankov, 2007). Naturally, both methods produce slightly different rankings comparing to our main methodology. In particular, European countries lose some positions and East Asian countries gain - the result of increased reliance on the governance outcomes, which are related to trust and confidence in governmental institutions. However, only 11 of 51 countries in case of uniform weights (10 out of 51 in case of averaged percentile rankings) significantly change their standing (according to classification provided in the Figure 1, wave 3 - when country changes one of three categories).

5.2 Adjusting the data

In our estimation we use survey data from countries around the world, and the public opinion in a country - especially about the issues related to the government - might be influenced by factors, which we would definitely like to account for. One of the factors is so-called "intimidation" effect, when people are afraid to express their true - negative - opinion about their government, because they think they could be punished for that. Another factor, frequently mentioned in the literature,

is the "indoctrination" effect, when mass media in a country praise the government so much, that it has a significant positive impact on public opinion. Another factor is the degree of citizen activism and perceived role of government in a country. In particular, Norris (1999) argues about the emergence in the 70s in developed countries of the class of so called "critical citizens" - people, who were becoming more and more critical and demanding towards their governments despite their obvious successes.

Taking into account 3 factors mentioned above ("intimidation", "indoctrination", "critical citizenship") we conclude that in general a response on a question about governance outcome of an individual might be affected not only by the quality of governance in a country. The true model can be rewritten in the following way:

$$s_{ijk} = \alpha_{ik} + \beta_k g_i + \gamma_{ik} int_{ij} + \eta ikind_{ij} + \mu_{ik} cr_{-} cit_{ik} + \epsilon_{ijk}, \tag{4}$$

where similarly to the notation from Section , s_{ijk} is a response of an individual j in a country i on a question k, g_i is the quality of governance in a country i, , and ϵ_{ijk} is a citizen-, country- and question-specific error. int_{ij} , ind_{ij} , $cr_{-}cit_{ij}$ are the degrees of intimidation, indoctrination and critical citizenship of an individual j in a country i. γ_{ik} , η_{ik} and μ_{ik} - depending on country and question - are the coefficients of our interest.

The estimation of γ_{ik} , η_{ik} and μ_{ik} is not possible from the model above, since we do not observe governance g_i (this is in fact what we are trying to assess). However, the problem can be resolved if we note, that for some questions (governance outcomes) there are no effects of intimidation, indoctrination or critical citizenship, and for some there are. For instance, when an individual is asked about the satisfaction with her/his health, it is likely that she/he will not be intimidated to say true. At the same time, questions like "Do you have confidence in your government?" are most probably subject to all above mentioned effects. Therefore, by taking the difference between the answers on these questions we can get rid of the governance on the right-hand side while intimidation, indoctrination and critical citizenship effects remain. The estimation model than become:

$$diff_{ij} = \frac{1}{K_1} \sum_{k=1}^{K_1} s_{ijk} - \frac{1}{K_2 - K_1} \sum_{k=K_1+1}^{K_2} s_{ijk} = \alpha'_i + \gamma_i int_{ij} + \mu_i ind_{ij} + \eta_i cr_cit_{ij} + \epsilon'_{ij},$$
 (5)

where s_{ijk} , $k = 1, ..., K_1$ are the citizens' answers on the questions, which are exposed to the biasing effects (intimidation, indoctrination, critical citizenship), s_{ijk} , $k = K_1 + 1, ..., K_2$ are the answers on the questions with no role for above mentioned effects. Therefore, the left-hand side of our model is the difference between the averages of the two groups of questions (governance outcomes). Assuming that these groups of governance outcomes explain governance to the same degree (average β_k 's are the same) we get rid of the quality of governance in the right-hand side, and can test for γ_{ik} , η_{ik} and μ_{ik} directly. After taking into account these effects the

estimator for the quality of governance can then be expressed as:

$$g_i = \frac{1}{N_i} \sum_{j=1}^{N_i} \sum_{k=1}^{K} w_k s_{ijk} - \sum_{k=1}^{K} w_k \frac{1}{N_i} \sum_{j=1}^{N_i} (\gamma_i int_{ij} + \mu_i ind_{ij} + \eta_i cr_cit_{ij})$$
 (6)

 g_i is now the weighted average of people's responses (the formula we adopted in the main body of the paper) less the effects of intimidation, indoctrination and critical citizenship - averaged over all residents of a country surveyed and multiplied by the weight of the questions in the survey, which are exposed to these effects.

We assume the following questions (governance outcomes) to be independent from the bias effects:

- How satisfied are you with the financial situation of your household? (improvements in economic and social outcomes)
- All things considered, how satisfied are you with your life as a whole these days? (improvements in quality of life: general)
- All in all, how would you describe your state of health today? (health)
- How serious you consider poor water quality, air quality, sewage and sanitation to be here in your own community? (environment)
- Taking all things together would you say you are [happy, unhappy]? (happiness)

On the opposite, the following questions (governance outcomes) are assumed to be exposed to bias effects:

- How much confidence do you have in government? (trust: executive branch)
- How much confidence do you have in parliament? (trust: legislative branch)
- How much confidence do you have in press? (trust: press)
- How much confidence do you have in television? (trust: television)
- How much confidence do you have in courts? (trust: courts)

5.2.1 Testing for the intimidation, indoctrination and "critical citizenship" effects

We use 2 types of estimation procedures to extract γ_i , η_i and μ_i - effects of intimidation, indoctrination and "critical citizenship" in a country i. First, we test for indoctrination (η_i) on an individual level, since there can hardly be any proxy for biasedness of mass-media (indoctrination) on a country-level. On a contrary, it is hard to come up with the proxies for personal intimidation and "critical citizenship" (this effect was in fact defined only for countries as a whole). That is why we use country-level regressions to identify these effects.

As the proxy for indoctrination we take the frequency, with which an individual exposes her- or himself to media - TV and press. Specifically, we use questions "Did you watch TV during the last week?" and "Did you read newspapers last week?" from the World Values Survey. The more people watch TV or read newspaper the more they are exposed to possible indoctrination (or excessive criticism of mass-media). The exact estimation model then becomes:

$$dif f_{ij} = \alpha'_i + \eta_{1i} t v_{ij} + \eta_{2i} press_{ij} + \theta_i demog r_{ij} + \epsilon'_{ij}, \tag{7}$$

where tv_{ij} , $press_{ij}$ are the dummies for watching TV and reading newspapers last week (as it was posed in the questions of the survey), $demogr_{ij}$ is a set of individual demographic variables (we take respondent's education, income, age, marital status, political activism - participation in demonstrations, boycotts, signing petitions).

We report the results in the Table 4. The main conclusion from it is that even though developing countries, especially those in Middle East and East Asia, seem to be indoctrinated, the mass media bias is also present in many developed countries - Japan, Sweden, Switzerland, USA, France. This might be the outcome not of state monopoly (or dictate) on mass media, but of too optimistic or patriotic news coverage in these countries. The magnitude of the indoctrination effect ranges from 0.02 (except for Ukraine and Rwanda, where those who watch TV are actually more critical towards the government) to 0.12, which combined with on average 75% of respondents watching TV or reading newspaper, may lead for some countries to a decrease in our estimates of governance by 0.005-0.03 points.⁴

Intimidation and "critical citizenship" effects are estimated on a country level. Specifically, as a proxy for the intimidation level in a country we use the average score of the country in the "Freedom in the World" ranking - an annual publication of the Freedom House, where political and civil rights of the citizens are assessed. As for the "critical citizenship" effect, we follow Pippa Norris (Norris, 1999) in her definition of a "critical citizen", and define the country to be in the stage of "critical citizenship" if it had been classified "free" by the Freedom House for at least ten years before the survey was conducted (long period of stable democracy), and the GDP per capita in this country (taken from IMF) was more than 10 thousands US dollars (wealthy population). Most OECD countries together with Slovenia and Chile enter the group. The estimation model than becomes:

$$diff_i = \alpha + \gamma freedom_i + \mu cr_c it_i + \theta demogr_i + \epsilon_i, \tag{8}$$

where $freedom_i$ is an index of Freedom House, cr_cit_i is the "critical citizenship" dummy defined above, and $demogr_i$ is a set of demographical country-specific variables (average level of education, share of married population, share of males, average age).

The estimation results are presented in the Table 5. As one can see from the table, both freedom of the county and its being in the stage of "critical citizenship" are highly statistically significant in explaining biases on responses on trust-related questions in the WVS surveys. The directions of the effects are what would be intu-

⁴Note that our estimates of governance are assessed on a scale from 0 to 1.

Table 4: Mass media bias in public opinion

	Table 4: Mass media bias in public opinio	Ш								
Media bias, magnitude (η_{1i}, η_{2i})	TV	Press								
0.08 - 0.12	Japan, Mexico, India, Slovenia, Cyprus, Thailand, Cyprus Ethiopia									
0.04 - 0.08	Sweden, Switzerland, Brazil, Turkey, Peru, Jordan, Malaysia Moldova, Indonesia, Vietnam, Serbia, Egypt, Andorra, Burkina Faso, Zambia, France									
0.02-0.04	China	USA, Mexico, Brazil, Romania, Egypt								
≈ 0	Argentina, Australia, Bulgaria, Chile, Taiwan, Colombia, Finland, Germany, Ghana, Italy, Republic of Korea, Mali, Morocco, Netherlands, Poland, Russian Federation, South Africa, Spain, Trinidad and Tobago, United Kingdom									
-0.080.02	Ukraine, Rwanda Indonesia									

Note: First column - ranges for point OLS estimates are reported. For each range, only the countries, for which coefficients are different from 0 at a significance level less than 5%, are reported. " \approx 0" range - countries with no significant TV or press bias. Sample of the countries used - WVS wave 3 (except Iran, Iraq, Hong Kong, New Zealand, where questions about mass media were not asked)

Table 5:	Effects	of i	indoctrination	and "	critical	citizensh	in"

Dependent vari-		Std.	P>t	95% c	onf. int.
able - diff		Err.			
freedom	-0.03***	0.007	0.000	-0.05	-0.02
cr_cit	0.09^{***}	0.025	0.001	0.04	0.14
F(6,157)	17.65				
Prob;F	0.00				
R-squared	0.4				
Adj. R-squared	0.38				
No. of observa-	164				
tions					

Note: **** - significant at less than 1% level. Method of estimation - OLS. Sample - countries surveyed by World Values Survey during all 3 waves.

itively foreseen. In the Freedom House ranking a country has the higher score the less civil and political rights it's citizens have: 1 is the best score, 7 is the worst. Therefore, negative γ in our estimation means that the intimidation effect plays a greater role in less free countries. 1 score up in the Freedom House ranking of a country makes the citizens of this country to be more cautious in answering government-related questions in a survey, and consequently overestimate their governments in trust-related questions by 0.03 points. For a completely depressed country (with the score 7) the effect on our governance estimate would be -0.07 points. From the other side, residents of the countries, which are in a stage of "critical citizenship", do have significantly less confidence in their governments then they should have had. If not too "critical", residents of these countries would give their governments score 0.09 points higher, which would be reflected in the increase of citizen-centric indicator on about 0.03.

Even though we find statistically significant effects of indoctrination, intimidation and "critical citizenship" in some countries, the magnitude of these effects is not particularly immense. For example, Vietnam with our score of 0.72 is not a free country based on criteria of Freedom House (it had rank 6 in 2005), and there is a moderate (0.05) effect of indoctrination on television. Together these effects would cut citizen-centric governance indicator in Vietnam by 0.07 points. New indicator would be 0.65 - still in the highest 20th percentile of the sample. Apparently, there are other reasons for some governments to score so high in the public opinion polls. In case of East Asia the main of them is probably last decade's stable economic growth and development in the region (as it is argued for China by Wang, 2005). At the same time, poor economic performance, political conflicts and corruption in the 90s (and for many countries up until today) in Central and Eastern European countries keep the scores the governments in this regions extremely low.

6 Concluding remarks

This paper has provided a conceptual framework for measuring governance quality using citizens' evaluations consistently across countries and over time. It further provided empirical illustration - using the data from World Values Survey Association - of the usefulness of the methodology by developing governance quality rankings for 120 countries. These rankings significantly differ from those provided by available indicators that mostly capture foreigners' (mostly interest groups) or arm-chair experts' opinions.

The surveys of WVS project are certainly subject to important limitations. They are not conducted in the same year for all countries, and the questionnaires may slightly differ from country to country, which may produce significant departures from objective estimation. It is also possible that in spite of the claims to the contrary by the survey organization, the survey may not be based on stratified random sampling for some countries due to practical difficulties (for instance, WVS for Vietnam).

Notwithstanding these limitations, the dataset constructed by us has important merits. The governance-related questions and answers are reported on the level of individual respondents in our dataset, which gives researchers a great flexibility in composing the rankings. In particular, it is possible to compose rankings among the people with higher education, different genders, income, etc. Most importantly and contrary to many other indicators, the data used in our estimation are freely accessible, and can be easily used by other researchers to replicate or modify our estimation procedure.

Ideally though our theoretical framework should be implemented using a world poll employing a uniform questionnaire across countries and over time. The World Gallup Poll or a similar instrument might offer such opportunity in the near future.

References

- Andrews, M. (). Are One-Best-Way models of effective government suitable for developing countries?, J. F. Kennedy School of Government Faculty Research working paper.
 - URL http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1124297
- Arndt, C. (2008). The politics of governance ratings. *International Public Management Journal* 11 (3): 275–297.
- Arndt, C. and C. Oman (2006). Uses and abuses of governance indicators. Paris: OECD Development Center.
- Azfar, O. (2008). Power to the people, article in daily newspaper "The Dawn", Karachi, Pakistan.
- Bertrand, M. and S. Mullainathan (2001). Do people mean what they say? Implications for subjective survey data. *American Economic Review* 91 (2): 67–72.
- Dixit, A. (2008). Governance institutions and development, presentation, PREM seminar, World Bank, Washington, DC.
 - $\label{eq:url} URL \qquad \text{http://info.worldbank.org/etools/BSPAN/PresentationView.asp?} \\ EID=1012\&PID=2244$
- Djankov, S. (2007). Ease of Doing Business, mimeo, Doing Business Project, World Bank.
 - $\label{eq:URL} URL $$ $$ http://www.doingbusiness.org/documents/DB09Easeofdoingbusinessrankmethod.pdf$
- Dye, K. (2007). Corruption and fraud detection by supreme audit institutions. In A. Shah (ed.), *Performance Accountability and Combating Corruption*, Washington, DC: World Bank, 303–322.
- Huther, J. and A. Shah (1998). Applying a simple measure of good governance to the debate on fiscal decentralization, World Bank Policy Research paper.
 - $\label{eq:url} \begin{tabular}{ll} $\rm URL & http://www.worldbank.org/html/dec/Publications/Workpapers/WPS1800series/wps1894/wps1894.pdf \end{tabular}$
- Iqbal, K. and A. Shah (2008). Truth in advertisement: How do worldwide governance indicators stack up?, World Bank Institute, unpublished paper. URL http://economics.ca/2008/papers/0080.pdf
- Kurtz, M. and A. Schrank (2007). Growth and governance: Models, measures and mechanism. *Journal of Politics* 69 (2): 538–554.
- Langbein, L. and S. Knack (2008). The Worldwide Governance Indicators and tautology, World Bank Policy Research working paper.
- Nardo, M., M. Saisana, A. Saltelli, and S. Tarantola (2005). Tools for composite indicator building, European Commission's Joint Research Center working paper.

- Norris, P. (1999). Critical Citizens: Global Support for Democratic Governance. New York: Oxford University Press.
- Qiao, B. and A. Shah (2006). Local government organization and finance: China. In A. Shah (ed.), *Local Governance in Developing Countries*, Washington, DC: World Bank, 137–168.
- Schrank, A. and M. Kurtz (2008). Conceptualizing and measuring institutions: A view from Political Science, mimeo, Ohio State University.

 URL http://esnie.u-paris10.fr/pdf/textes_2008/KurtzSchrank-CPdraft.pdf
- Shah, A. (2007). Tailoring the fight against corruption to country circumstances. In A. Shah (ed.), *Performance Accountability and Combating Corruption*, Washington, DC: World Bank, 233–254.
- Shah, A. (2008). Demanding to be served: On holding government to account for service delivery. In J. de Jong and G. Rivzi (eds.), *The State of the Access*, Washington, DC: Brooking Institution Press.
- Shah, A. and S. Shah (2006). The new vision of local governance and the evolving role of local governments. In A. Shah (ed.), *Local Governance in Developing Countries*, Washington, DC: World Bank, 1–46.
- Shah, A. and C. Shen (2007). Fine tuning of the intergovernmental transfer system to create a harmonious society and a level playing field for regional development. In J. Lou and S. Wang (eds.), *Public Finance in China: Reform and Growth for a Harmonious Society*, Washington, DC: World Bank, 129–154.
- Thomas, M. (2006). What do the Worldwide Governance Indicators measure?, mimeo, John Hopkins University.

 URL http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1007527
- Transparency International (TI) (2005). Report on Transparency International Global Corruption Barometer 2005.

 URL http://www.transparency.org/policy_research/surveys_indices/gcb/2005
- Wang, Z. (2005). Before emergence of Critical Citizens: Economic development and political trust in China. *International Review of Sociology* 15 (1): 155–171.
- World Bank (2007). Strengthening Bank Group Engagement in Governance and Anticorruption, World Bank Group strategy paper.
- World Bank Institute (WBI) (2008). Worldwide Governance Indicators. URL info.worldbank.org/governance/wgi/index.asp
- World Values Survey (WVS) (2008). 2005 Official Datafile v. 20081015. World Values Survey Association.
 - URL http://www.worldvaluessurvey.org

A Appendix

Table A1: Governance outcomes: weights and questions assigned

Code	Governance	Questions assigned	V	Veight	s used	d
	criteria	Questions assigned	1	2	3	comp
\mathbf{A}	Responsive		0.6	0.6	0.6	0.6
	governance					
11	public services	How satisfied are you with the	0.25	0.15	0	0
	consistent with	way the people in national of-				
	citizen prefer-	fice are handling the country's				
	ences	affairs?				
21	safety of life, or-	How much confidence do you	0.05	0.05	0.03	0.1
	der, rule of law	have in police?				
31	freedom of	How satisfied are you with the	0.15	0.15	0	0
	choice and	way the democracy is develop-				
	expression	ing in your country?				
32		How democratically is your	0	0	0.1	0
	_	country being governed today?				
41	improvements	How satisfied are you with	0.2	0.2	0.2	0.3
	in economic and	the financial situation of your				
- 1	social outcomes	household?	0.05	0.05	0.05	0.4
51	improvements in	All things considered, how sat-	0.25	0.35	0.25	0.4
	quality of life:	isfied are you with your life as				
0.1	general	a whole these days?	0.05	0.05	0.05	0.1
61	improvements in	All in all, how would you de-	0.05	0.05	0.05	0.1
	quality of life:	scribe your state of health to-				
71	health	day?	0	0	0.03	0
71	improvements in	How serious you consider poor	0	0	0.05	U
	quality of life: environment	water quality to be here in your				
72	environment	own community?	0	0	0.03	0
12		How serious you consider poor air quality to be here in your	0	U	0.03	U
		own community?				
73		How serious you consider poor	0	0	0.03	0
10		sewage and sanitation to be	U	U	0.00	U
		here in your own community?				
81	peace	How much confidence do you	0.05	0.05	0.03	0.1
O.	Pouco	have in armed forces?	0.00	0.00	0.00	U.I
91	inmprovements	Taking all things together	0	0	0.25	0
~ -	in quality of life:	would you say you are [happy,	~	~	- -	~
	happiness	unhappy]?				
\mathbf{B}	Fair gover-		0.1	0.1	0.1	0.1
	nance					

Table A1: (continued)

Code	Governance	Questions assigned	V	Veight	s use	d
Cou	e criteria	Questions assigned	1	2	3	comp
11 21	social justice, respect for human rights government	How much respect is there for individual human rights nowadays in the country? How proud are you to be your	0.8	0.8	0.8	0.8
21	represents the whole country	nationality?	0.2	0.2	0.2	0.2
\mathbf{C}	Responsible governance		0.15	0.15	0.15	0.15
11	earning trust: executive branch	How much confidence do you have in government?	0.2	0.2	0.3	0.5
19	earning trust: legislative branch	How much confidence do you have in parliament?	0.2	0.2	0.3	0.5
21	corruption	Would you say that this country is run by a few big interests looking out for themselves, or that it is run for the benefit of all people?	0.3	0.3	0	0
22		In your view, does corruption affect your personal and family life, business environment, political life not at all, to a small extent, to a moderate extent, or to a large extent?	0	0	0.4	0
31	open, transparent and prudent economic, fiscal and financial management	How satisfied are you with the way the people in national office are handling the country's affairs?	0.3	0.3	0	0
D	Accountable governance		0.15	0.15	0.15	0.15
11	access to information, independent mass media - press	How much confidence do you have in press?	0.25	0.25	0.25	0.25

Table A1: (continued)

Code	Governance	Questions assigned	Weights used						
Cou	e criteria	Questions assigned	1	2	3	comp			
18	access to in-	How much confidence do you	0.25	0.25	0.25	0.25			
	formation,	have in television?							
	independent								
	mass media -								
	television								
21	judicial integrity	How much confidence do you	0.5	0.5	0.5	0.5			
	and indepen-	have in courts?							
	dence								

Note: The data source for all (but C24) questions is World Values Survey (WVS, 2008). Question C24 was taken from Transparency International Global Corruption Barometer (TI, 2005). The coding corresponds to the coding used in our dataset. Weights used: 1 - for wave 1 (1994-98) of WVS, 2 - for wave 2 (1999-2004), 3 - or wave 3 (2004-08), comp. - for comparison between these 3 waves. Weights of sub-categories are given within the category (A, B, C, or D)

Table A2: Existing sources of data and their main features

N			aphical coverage				a access	D -1
Name	Code	Num. Region		Years	Freq., y.	Free	Lag, y.	- Relevancy
World Values Survey	WVS	97	worldwide	1994-	3-6	yes	2-3	average
				2008				
Afrobarometer	AFR	20	Sub-Saharan	2001-	3	yes	1-2	high
			Africa	2008				
Asiabarometer	ASB	25	East Asia	2003-	2	yes	1-2	high
.	DEED @	0.0		2006				•
Business Environment	BEEPS	26	Central and	1999-	3	yes	1-2	low
and Enterprise Perfor-			Eastern	2005				
mance Survey	TI COD	co.	Europe	2004	1		<i>-</i> 1	1
Transparency Interna-	TI_GCB	62	worldwide	2004-	1	yes	<1	very low
tional Global Corruption Barometer				2008				
Latinobarometro	LBO	18	Latin Amer-	2004-	1	no	1	high
Latinobarometro	шоо	10	ica	2004-	1	110	1	mgn
Eurobarometer	EUB	30	Europe	1973-	0.5	yes	<1	very high
	ЦОВ	90	Larope	2008	0.0	yos	\1	vory 111811
Gallup World Poll	GWP	130	worldwide	2007-	1	no	n.a.	n.a.
r				2008				
GWP - datapoints from	GWP	119	worldwide	2007	1	yes	0	low
World Bank Institute	WGI					v		
(WBI) (2008)								

Note: Number - the total number of countries, which participated in all waves of survey; Freq. - average time period in years, in which a country is surveyed; Lag - the time period in years between taking a survey and posting data; Relevancy - correspondence of questions in a questionnaire to the subcriteria of governance from the Table 1, given on the scale: very low-low-average-high-very high.

www.economics-ejournal.org

Table A3: Citizen-centric governance indicators: aggregate and disaggregate data by country, waves 1-3

country	voor	N -					I	4					I	3			С				D		proc	CGI	uor
country	year	IN -	11	21	31	37	41	51	61	74	81	91	11	21	11	19	21	24	31	11	18	21	prec	CGI	var
											WAV	VE 1			'										
Albania	1998	999	38	65			40	42	75		56			81	46	54	21		38	33	39	65	83	45	0.6
Azerbaijan	1997	2002	42	46	52		40	49	66		53		58	86	77	64	22		42	36	40	46	100	48	0.6
Argentina	1995	1079	35	32			44	66	68		32			81	33	26	12		35	41	36	32	83	42	0.8 0.7
Australia	1995	2048	43	63			60	73	77		59			90	36	40	32		43	32	38	63	83	55	0.7
Bangladesh	1996	1525	74	42			56	60	62		56			92	70	72	60		74	61	59	42	83	62	0.7
Bosnia and	1998	1200	48	68			40	50	66		77			80	63	53	43		48	50	54	68	83	53	0.8
Herzegovina																									
Brazil	1997	1149	49	40			50	68	73		63			82	43	31	25		49	53	49	40	83	$\bf 52$	1.1
Bulgaria	1997	1072	36	49			29	41	64		72			77	54	45	27		36	46	60	49	83	43	0.8
Belarus	1996	2092	22	40	29		25	37	51		65		34	68	50	35	17		22	44	47	40	100	34	0.5
Chile	1996	1000	51	49			55	66	67		53			81	50	40	32		51	48	51	49	83	$\bf 54$	0.8
China	1995	1500					57	65	74					76									32	63	2.7
Colombia	1997	6025	31	48			78	81	75		57			94	39	30	21		31	46	49	48	83	$\bf 54$	0.8
Croatia	1996	1196	44	56			40	58	63		67			75	51	46	34		44	36	36	56	83	49	0.8
Czech rep.	1998	1147	35	45			46	60	63		44			73	37	30	18		35	45	48	45	83	45	0.7
Dominican	1996	417	17	28			53	68	73		41			89	27	27	8		17	43	46	28	83	40	0.8
rep.																									
Estonia	1996	1021	30	47	43		33	44	57		46		43	63	48	44	15		30	51	58	47	100	41	0.5
Finland	1996	987	42	69			63	75	74		68			78	40	40	28		42	40	50	69	83	57	0.6
Georgia	1996	2008	30	37	31		23	41	62		48		32	86	45	39	6		30	52	53	37	100	36	0.6
Germany	1997	2026	38	54	52		58	66	66		45		53	53	32	35	29		38	31	35	54	100	49	0.5
Hungary	1998	650	40	52			44	54	60		54			80	44	42	18		40	37	44	52	83	46	0.7
India	1995	2040	41	43			57	61	67		73			88	52	56	29		41	57	53	43	83	$\bf 52$	1.0

Table A3: ((continued)
-------------	-------------

country	woor	N					I	4					I	3			С				D		proc	CGI	var
country	year	11	11	21	31	37	41	51	61	74	81	91	11	21	11	19	21	24	31	11	18	21	prec	CGI	vai
Japan	1995	1054	28	63			59	62	65		56			62	40	37	23		28	59	58	63	83	50	0.5
Korea, rep.	1996	1249	42	49			52		73		61				47	39	17		42	57	55	49	66	47	0.8
Latvia	1996	1200	30	37	32		29	43	56		36		36	59	40	33	4		30	48	52	37	100	36	0.5
Lithuania	1997	1009	29	34	38		34	44	59		45		35	60	44	39	10		29	58	60	34	100	38	0.5
Macedonia	1998	995	28	36			41	52	71		46			86	28	25	26		28	33	36	36	83	39	0.9
Mexico	1996	2364	33	35			69	73	65		54			87	42	44	29		33	49	48	35	83	51	0.8
Moldova	1996	984	27	37	26		23	30	51		53		30	70	43	41	17		27	41	47	37	100	32	0.6
New	1998	1201	31	68			61	74	78		56			87	30	30	22		31	41	44	68	83	$\bf 52$	0.7
Zealand																									
Nigeria	1995	1996	29	32			52	62	76		46			81	33	32	11		29	56	58	32	83	44	1.1
Norway	1996	1127	64	67			64	74	78		60			80	57	58	72		64	42	49	67	83	65	0.5
Pakistan	1997	733		33			41		69		92			94						54	59	33	38	51	1.3
Peru	1996	1211	49	34			46	60	64		50			92	46	28	57		49	42	45	34	83	49	1.0
Philippines	1996	1200	47	54			56	65	66		62			89	55	56	41		47	65	64	54	83	57	0.9
Poland	1997	1153	40	51			37	60	56		67			89	43	40	20		40	48	49	51	83	47	0.8
Puerto Rico	1995	1164	48	55			66	79	72		59			95	52	37	39		48	52	45	55	83	59	0.9
Romania	1998	1239	27	43			32	43	64		72			76	32	31	20		27	41	49	43	83	38	0.8
Russian fed-	1995	2040	17	36			26	38	50		63			65	32	31	7		17	43	47	36	83	31	0.7
eration																									
Serbia and	1996	1520	36	46			34	52	63		58			71	41	39	31		36	35	36	46	83	43	0.9
Montenegro																									
Slovakia	1998	1095	41	43			40	56	62		58			77	44	37	34		41	46	49	43	83	46	0.7
Slovenia	1995	1007	40	49			48	61	59		47			84	45	35	22		40	46	52	49	83	48	0.7
South	1996	2935	48	65			42	56	75		52			92	59	58	56		48	52	58	65	83	55	1.1
Africa																									

								1					I	3			С				D				
country	year	N ·	11	21	31	37	41	51	61	74	81	91	11	21	11	19	21	24	31	11	18	21	prec	CGI	var
Spain	1995	1211	29	54			52	62	70		44			85	37	40	33		29	46	44	54	83	47	0.7
Sweden	1996	1009	45	65			58	75	78		52			78	45	47	41		45	39	50	65	83	57	0.6
Switzerland	1996	1212	54	58			70	78	79		47			67	49	45	39		54	35	40	58	83	59	0.6
Taiwan	1994	780	44	54			57	62	64		62			60	58	48	48		44	46	50	54	83	$\bf 54$	0.6
Turkey	1996	1907	34	61			47	58	68		86			90	43	45	20		34	49	48	61	83	49	0.9
Ukraine	1996	2811	21	39	25		22	33	50		60		27	60	43	39	12		21	44	47	39	100	31	0.5
UK	1998	1093						73															15	73	4.7
USA	1995	1542	45	61			62	74	78		72			92	41	40	27		45	39	39	61	83	56	0.7
Uruguay	1996	1000	35	49			64	68	74		37			89	41	41	23		35	53	51	49	83	5 1	0.9
Venezuela	1996	1200	19	34			44	64	76		59			97	31	28	16		19	57	53	34	83	42	1.1
											WAV	/E 2	1		Į.					1					
Albania	2002	1000	26	58	34		42	46	74		51		41	89	54	45	35		26	40	52	58	100	44	0.7
Algeria	2002	1282	32	60	41		55	52	62		63		38	89	49	34	13		32	47	45	60	100	47	0.9
Argentina	1999	1280	33	32	44		50	70	71		35		34	85	28	23	10		33	44	40	32	100	45	0.7
Austria	1999	1522		64	60			78			45		63	81		46				41		64	60	66	0.9
Bangladesh	2002	1500	62	51	62		51	53	66		68		61	90	76	78	44		62	75	69	51	100	59	0.6
Belgium	1999	1912		50	44			71			41		56	64		41				41		50	60	56	1.1
Bosnia and	2001	1200	35	57	39		43	53	71		58		39	66	39	34	19		35	38	42	57	100	45	0.7
herzegovina																									
Bulgaria	1999	1000		47	37			50			54		40	67		36				37		47	60	45	1.5
Belarus	2000	1000		43	37			42			61		41	63		40				44		43	60	43	1.3
Canada	2000	1931	53	68	57		65	76	80		59		68	87	44	43	47		53	42	44	68	100	63	0.6
Chile	2000	1200	55	53	53		52	68	71		48		54	87	53	39	35		55	47	51	53	100	56	0.7
China	2001	1000	59	60	65		52	61	70		80		73	68	79	76	83		59	59	62	60	100	64	0.6
Croatia	1999	1003		47	31			63			56		51	74		33				31		47	60	50	1.2

		3.7						Α					F	3			С				D			COL	
country	year	N	11	21	31	37	41	51	61	74	81	91	11	21	11	19	21	24	31	11	18	21	prec	CGI	var
Czech rep.	1999	1908		43	42			67			39		56	69		28				44		43	60	53	1.0
Denmark	1999	1023		72	59			80			55		78	80		49				41		72	60	70	0.8
Egypt	2000	3000	77	78	77		47	48	70		59		63	94	55	62	31		77	62	61	78	100	62	1.1
El Salvador	1999	1254		51			59	72	71		49			93	43	35	26			48	52	51	70	58	1.3
Estonia	1999	1005		41	42			55			42		52	60		37				45		41	60	48	1.1
Finland	2000	1038		73	53			76			69		75	83		46				43		73	60	68	0.7
France	1999	1615		57	48			67			55		54	75		40				38		57	60	57	1.1
Germany	1999	2036		59	59			71			49		62	63		41				42		59	60	61	0.9
Greece	1999	1142		36	51			63			59		58	80		33				37		36	60	53	1.1
Hungary	1999	1000		44	40			53			45		52	79		38				36		44	60	48	1.3
Iceland	1999	968		68	55			78			42		72	88		61				44		68	60	68	0.7
India	2001	2002	52	42	56		44	46	68		84		65	87	53	52	34		52	64	65	42	100	$\bf 52$	0.7
Indonesia	2001	1004	36	52	40		61	66	70		63		59	80	52	46	30		36	53	56	52	100	$\bf 54$	0.6
Iran	2000	2532	59	56	55		53	60	75				61	95	62	63	51		59	44	50	56	97	58	0.8
Iraq	2004	2325					49	47	74		55		39	90	40		30				54		60	48	1.6
Ireland	1999	1012		73	56			80			58		67	91		41				44		73	60	69	0.9
Israel	2001	1199						67						78									23	68	4.9
Italy	1999	2000		59	42			69			51		56	75		41				42		59	60	58	1.0
Japan	2000	1362	28	49	45		57	61	65		57		54	59	37	34	16		28	59	58	49	100	49	0.5
Jordan	2001	1223	63	83	59		44	51	76		85		62	89	78	62	31		63	59	57	83	100	60	0.7
Korea, rep.	2001	1200	39	49	42		53	58	73		57		47	64	40	24	12		39	56	56	49	100	48	0.6
Kyrgyzstan	2003	1043	38	29	39		52	61	67		53		38	74	38	38	17		38	46	51	29	100	45	0.8
Latvia	1999	1013		42	40			47			47		50	73		35				46		42	60	46	1.3
Lithuania	1999	1018		37	35			47			48		31	55		27				60		37	60	41	1.4
Luxembourg	1999	1211		60	64			76			50		73	77		54				46		60	60	67	0.9

								4					I	3			С				D				
country	year	N -	11	21	31	37	41	51	61	74	81	91	11	21	11	19	21	24	31	11	18	21	prec	CGI	var
Macedonia	2001	1055	26	48	27		38	46	72		51		36	78	20	17	7		26	33	35	48	100	37	0.9
Malta	1999	1002		59	64			80			62		62	91		49				40		59	60	67	0.8
Mexico	2000	1535	44	34	42		63	79	70		53		48	91	39	28	27		44	45	47	34	100	53	0.8
Moldova	2002	1008	31	38	27		34	40	50		54		31	60	39	38	9		31	46	49	38	100	36	0.6
Morocco	2001	2264	46	51	44		49	56	77		66		42	95	54	25	23		46	41	36	51	100	49	0.9
Netherlands	1999	1003		57	59			76			44		70	65		51				53		57	60	65	0.6
New	2004	954		63			63	77	72		62	79	69	89	45	42				37	43	48	73	63	0.7
Zealand																									
Nigeria	2000	2022	59	39	57		59	65	87		49		56	87	49	47	28		59	62	68	39	100	57	0.8
Pakistan	2001	2000	43	35	27		28	43	69		79		53	93	42	68	11		43	55	55	35	100	43	0.5
Peru	2001	1501	45	33	45		46	60	64		37		46	90	35	28	43		45	39	40	33	100	47	0.7
Philippines	2001	1200	49	58	47		53	63	67		65		71	94	51	57	39		49	63	65	58	100	58	0.8
Poland	1999	1095		55	44			58			62		51	89		40				50		55	60	$\bf 54$	1.5
Portugal	1999	1000		58	62			67			61		57	91		47				57		58	60	62	1.0
Puerto Rico	2001	720	47	57	54		72	83	75		55		53	98	49	39	48		47	48	39	57	100	62	0.7
Romania	1999	1146		47	32			47			72		36	77		28				45		47	60	44	1.6
Russian	1999	2500		34	19			41			61		25	65		27				36		34	60	35	1.4
Federation																									
Saudi Ara-	2003	1502					69	70	84				62	89			41			60	63		58	67	1.5
bia																									
Serbia and	2001	2260	38	43	41		33	51	65		58		48	65	36	33	29		38	36	39	43	100	43	0.7
Montenegro																									
Singapore	2002	1512	71				63	69						82			77		71				53	69	1.2
Slovakia	1999	1331		45	33			56			62		53	65		42				47		45	60	50	1.2
Slovenia	1999	1006		50	45			69			45		45	81		36				57		50	60	56	1.1

country	year	N						4					I				С				D		prec	\mathbf{CGI}	var
	<i>y</i> car		11	21	31	37	41	51	61	74	81	91	11	21	11	19	21	24	31	11	18	21			
South	2001	3000	44	56	48		45	59	81		51		51	86	51	49	32		44	53	61	56	100	53	0.9
Africa																									
Spain	1999.	52409	46	53	56		58	67	72		44		58	81	46	48	40		46	45	43	53	100	56	0.6
Sweden	1999	1015	44	62	52			74			47		63	76		50			44	48		62	74	60	0.7
Tanzania	2001	1171	53	63	63		28	32	70		86		67	91	78	74	52		53	70	72	63	100	$\bf 54$	1.1
Turkey	2001	4607	34	62	25		37	51	68		80		28	82	43	39	17		34	34	37	62	100	43	0.9
Uganda	2001	1002	55	56	58		43	52	73		71		60	85	72	69	50		55	63	62	56	100	57	0.8
UK	1999	1000		60	50			71			69		59	79		42				26		60	60	60	1.0
Ukraine	1999	1195		36	27			40			61		31	57		33				46		36	60	38	1.5
USA	1999	1200	55	62	56		61	74	81		71		62	89	44	44	37		55	38	38	62	100	60	0.6
Venezuela	2000	1200	54	41	57		58	72			59		49	97	53	36	63		54	59	58	41	97	58	0.9
Vietnam	2001	1000	80	82	86		55	61	66		88		86	92	91	91	91		80	72	78	82	100	75	0.5
Zimbabwe	2001	1002	36	61	37		24	33	72		58		36	88	52	50	18		36	55	57	61	100	41	0.9
											WAV	/E 3	'		1					'					
Andorra	2005	1003		53		49	59	68	72	44		73	60	75	41					43	41	41	88	58	1.4
Argentina	2006	1002		31		67	61	75	70	16	38	73	44	87	41	25		20		41	39	30	100	$\bf 52$	1.1
Australia	2005	1421		69		68	59	70	66	45	69	76	64	88	44	42				30	35	51	94	60	0.8
Brazil	2006	1500		43		58	54	74	67	37	62	75	47	72	45	29				43	41	47	94	57	0.8
Bulgaria	2006	1001		51		37	34	47	52	22	64	53	35	73	38	29		14		48	58	40	100	41	0.7
Burkina	2007	1534		51		52	41	51	65	10	61	67	54	94	48	41				52	55	47	94	51	0.7
Faso																									
Chile	2005	1000		54		66	52	68	57	39	55	69	49	84	46	32				45	47	35	94	55	1.8
China	2007	2015		67		64	55	64	59	56	75	65	71	65	77	77		22		62	63	68	100	62	0.6
Colombia	2005	3025		48		59		81	64		58	78	45	96	49	31		25		44	47	39	82	58	0.7
Cyprus	2006	1050		58		64	62	71	71	28	63	74	58	80	51	49				40	42	61	94	61	1.5

Table A3: (continued)

	*****	NT					I	4					I	3			С				D		20200	CCI	
country	year	N	11	21	31	37	41	51	61	74	81	91	11	21	11	19	21	24	31	11	18	21	prec	CGI	var
Egypt	2008	3051					43	53	58	3		64		91						56	67	••	61	51	1.7
Ethiopia	2007	1500		40		36	43	44	60	14	47	63	38	88	36	35		28		35	36	37	100	42	0.6
Finland	2005	1014		75		71	67	76	62	69	71	74	81	83	56	52		47		42	50	67	100	67	0.6
France	2006	1001		59		62	57	66	66		57	75		72	34	39		21		40	38	40	86	55	0.8
Germany	2006	2064		61		61	56	68	64	69	49	67	61	62	33	33		29		39	41	53	100	56	1.8
Ghana	2007	1534		53		83	46	57	71	29	69	75	72	97	65	60		29		56	65	60	100	60	0.7
Hong Kong	2005	1252		65			57	60	55		52	63	64	54	53	50		29		55	59		81	57	0.5
India	2006	2001		60		61	48	53	61	27	76	67	73	89	54	60		27		69	67	65	100	57	0.7
Indonesia	2006	2015		50		61	58	66	64	27	64	73	63	79	54	43		22		52	57	51	100	57	0.5
Iran	2007	2667		57		47	56	60	60	14	59	65	43	84	53	49				44	51	51	94	53	0.6
Iraq	2006	2701					41	38	57		60	47	35	93	56						65		65	46	1.3
Italy	2005	1012		63		53	61	65	63	55	59	69	52	77	36	39		17		37	32	50	100	$\bf 54$	0.4
Japan	2005	1096		57		65	57	67	53	49	61	73	51	60	38	34				60	59	66	94	59	0.4
Jordan	2007	1200		85		75	60	68	76	19	88	72	65	90	81	61				64	65	83	94	67	2.4
Korea, rep.	2005	1200		53		60	51	60	64	49	51	66	58	69	46	35		12		56	57	48	100	53	3.2
Malaysia	2006	1201		64		67	61	65	72	37	71	77	64	88	67	60		31		58	62	68	100	63	0.4
Mali	2007	1534		64		67	53	57	62	16	76	73	72	96	65	55				56	62	61	94	61	0.8
Mexico	2005	1560		36		62	68	80	61	35	59	83	53	92	45	31		21		48	47	40	100	59	0.7
Moldova	2006	1046		32		45	42	49	51	21	41	49	33	60	37	34		29		43	49	35	100	41	0.6
Morocco	2007	1200		58		44	44	47	70	13	63	68	56	83	54	47				51	55	60	94	$\bf 52$	0.5
Netherlands	2006	1050		53		62	65	75	65		45	78		69	36	38		49		39	42	46	86	60	1.6
Peru	2008	1500		29		51	52	67	50	15	35	65	33		26	22		12		33	34	21	98	43	0.7
Poland	2005	1000		48		52	46	67	54	29	60	71	55	86	31	27		14		45	46	40	100	50	0.7
Romania	2005	1776		43		53	42	53	50	44	70	52	40	73	33	28				47	51	36	94	46	0.7

Table A3: (continued)

country		N					I	4					I	3			С				D		nnoo	CGI	
country	year	IN	11	21	31	37	41	51	61	74	81	91	11	21	11	19	21	24	31	11	18	21	prec	CGI	var
Russian	2006	2033		37		37	41	57	44		60	58		75	44	34		26		40	45	40	86	46	1.1
Federation																									
Rwanda	2007	1507		76			38	44	40	32		65		92		69				62	55	70	74	$\bf 54$	0.7
Serbia	2006	1220		39		46	42	56	54	18	49	56	33	78	34	30				33	33	35	94	43	0.6
Slovenia	2005	1037		43		54	59	69	55	59	42	66	49	82	36	31				39	43	39	94	55	0.5
South	2007	2988		57		71	52	67	70	26	58	72	63	91	64	60		27		56	65	60	100	60	4.2
Africa																									
Spain	2007	1200		55		71	54	70	65		50	68	56	84	46	49		48		45	41	52	94	59	0.5
Sweden	2006	1003		63		73	67	75	70	83	48	80	67	76	45	52				41	51	62	94	68	1.0
Switzerland	2007	1241		66		74	76	78	72	59	49	79	74	74	57	51		43		42	41	63	100	67	1.5
Taiwan	2006	1227		43		66	56	62	68	57	44	68	58	54	38	25		7		30	28	42	100	51	1.3
Thailand	2007	1534		46		67	62	69	65	50	52	77	68	95	45	43		26		49	51	64	100	61	0.5
Trinidad	2006	1002		38		57	57	70	68	56	46	79	39	96	37	31				35	38	41	94	57	1.4
and Tobago																									
Turkey	2007	1346		66		55	55	72	59	18	82	73	41	93	59	56		23		36	38	68	100	56	0.9
UK	2006	1041		62		61	64	73	67		67	81		81	39	41		33		28	39	55	86	61	1.3
Ukraine	2006	1000		38		35	40	52	46	19	52	61	37	67	35	30		23		46	49	37	100	43	1.2
USA	2006	1249		61		59	54	70	69	37	71	76	59	85	44	36		25		37	38	53	100	56	2.3
Vietnam	2006	1495		85		77	59	68	54	41	93	72	79	93	93	92				81	87	84	94	73	0.4
Zambia	2007	1500		49		63	49	56	64	37	55	59	51	83	47	44				51	55	52	94	54	0.8

Note: The table presents citizen-centric governance indicators for all countries and waves of surveys as well as mean responses by each question used in estimation. The data source for all (but C24) questions is World Values Survey (WVS, 2008). Question C24 was taken from Transparency International Global Corruption Barometer (TI, 2005). year - year of the survey. N - number of respondents. Columns 4 to 23 - mean responses to each question used in our estimation, the coding corresponds to the coding used in our dataset. prec - weights-adjusted amount of questions actually asked in a country during a survey (some questions were not asked in some countries), weights for each question are given in the Table A1. CGI - citizen-centric governance indicators, point estimates. var - estimates of variance of CGIs. All numbers are given in percentages (including variance).