



“Open for Business?” – Transparent government and business regulation



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ABSTRACT

We present new indicators for 185 economies measuring the accessibility of business regulatory information and show that the new data can serve as meaningful proxies for the overall transparency of governments and that the new data have explanatory power for the quality of business regulation. We find the regulatory environment to be most opaque in Sub-Saharan Africa and the Middle East and North Africa, where businesses can often only access basic regulatory information by meeting a government official. By contrast, in the OECD and Eastern Europe and Central Asia access is more direct via websites, public billboards and brochures. Moreover, OECD economies are more consistent in their transparency efforts across different government agencies. We also find that while resources as proxied by income levels play some role in explaining why some economies make more information easily accessible than others, they are not the only determining factor; regardless of income more democratic governments tend to make greater transparency efforts. Finally, we find that easier access to basic regulatory information is associated with greater regulatory quality and less corruption.

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1. Introduction

Access to information can empower citizens to monitor the quality of government services and the use of public resources. Because government markets are usually monopolistic, the consumers of public services have no “exit” option – they cannot “vote with their feet”, by going to a competitor for better services. Access to information is therefore critical if citizens are to exercise their “voice” in demanding greater accountability from public servants (Hirschman, 1970; Paul, 1992). A growing body of literature attests to the important role that information can play in improving the delivery and quality of services provided by governments in areas such as public health, sanitation and education (World Bank, 2004; Svensson and Reinikka, 2005; Deininger and Mpuga, 2005; Besley and Burgess, 2002). For example, the government of Uganda demonstrated this by having newspapers publish data on monthly transfers of school grants to local governments. By improving the ability of schools and parents to monitor how local officials handled the grants, the program reduced the share of grant funding lost to corruption from 80% to 20% (Svensson and Reinikka, 2005). With more information, people can better evaluate different options and manage risks more effectively (Akerlof, 1970; Stiglitz and Weiss, 1981; Hirshleifer, 1980; Stigler, 1971; Posner, 1981).

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Little attention has been paid so far to the role of information for those branches of government that are in charge of business regulatory requirements. This gap needs to be closed because there is compelling evidence that badly implemented business regulations affect firm creation and productivity negatively. Entry rates of new businesses and business density are lower and more businesses stay in the informal sector, where rules and requirements are cumbersome (Dabla-Norris, Gradstein, & Inchauste, 2008; Klapper, Laeven, & Rajan, 2006; Antunes and Cavalcanti, 2009). Excessive regulation also goes hand in hand with lower firm productivity (Barseghyan, 2008; Alesina, Ardagna, Nicoletti, & Schiantarelli, 2005; Fisman and Sarria-Allende, 2004; Klapper and Richmond, 2009).

The World Bank Enterprise Surveys suggest that there is much room for improvement in service quality and accountability in business regulation. The companies surveyed report that in a typical week their senior managers spend on average 11% of their time dealing with government regulations. More than 50% of them disagree with the notion that regulations are implemented consistently and predictably. And what's worse, companies often have to pay a bribe to get things done. Worldwide, 19% of firms report having had to pay bribes in connection with their application for an operating license or electricity connection.¹

To shed light on the role that information can play in improving the quality of business regulation we present and analyze a unique new dataset that captures the information practices of public agencies in charge of business regulation. Specifically, the new data captures in which of the sampled 185 economies fee schedules for procedures such as company or property registration, building permitting and electricity connections could be accessed by businesses without meeting with a public official in the period from July 2011 to June 2012. The new data could be particularly valuable for development practitioners because it captures not only transparency efforts made through online solutions, but also other, less capital intensive ways of making information available, for instance, by means of brochures and billboards. This approach allows us to include many developing economies in the sample, which do not necessarily have the resources to invest in capital- and resource-intensive E-Government solutions.

The paper is structured as follows: first, we present descriptive statistics on how the practice of making fee schedules available varies across different government agencies, regions and income groups. We find that meeting an official is still the most common means of acquiring regulatory information in Sub-Saharan Africa and the Middle East and North Africa. And, while richer countries generally tend to make more information available through websites and other information material, there are also some poor countries that achieve transparency levels comparable to those of richer countries in the sample. Out of the four different regulatory agencies considered in this paper company registries are by far the most transparent, a result that may be related to the significant number of reforms that have taken place in this particular area of business regulation in the past ten years.²

Second, we examine commonalities amongst those economies that are more transparent in their business regulatory practices other than that they tend to be richer. Like other authors before us we find that greater access to information is associated with greater control of corruption and better overall governance. We also find that countries that make it easy to access information tend to be more democratic.

Third, using various datasets on the quality and efficiency of regulatory systems we find that easier access to information is associated with greater regulatory quality and efficiency.

The next section of the paper describes the data methodology. Section III presents descriptive statistics of the data by region and income groups. Section IV includes the main analysis and Section V concludes the findings.

2. Methodology

The new indicators presented here were collected in the context of an annual data update of the Doing Business indicators published jointly by the World Bank Group (WBG) and the International Finance Corporation (IFC).³ The Doing Business indicators of the WBG/IFC have been tracking business regulatory requirements and practices since 2003. In its current format, the Doing Business dataset comprises 11 indicators that measure the regulations affecting domestic small and medium-size enterprises in the largest business city of 185 economies. The 11 indicators provide quantitative measures of regulations for starting a business, dealing with construction permits, getting electricity, registering property, employing workers, getting credit, protecting investors, paying taxes, trading across borders, enforcing contracts and resolving insolvency.

The Doing Business data is collected through annual surveys that are administered to more than 9,000 experts in 185 economies. Expert respondents are lawyers, architects, government officials or other professionals who deal directly with

¹ <http://www.enterprisesurveys.org/>

² In its 10-year edition of the Doing Business Report (Doing Business 2013) the authors of the report show that a total of 368 reforms were undertaken in 149 economies in the area of business startup since 2005.

³ www.doingbusiness.org

business regulatory processes for their clients on a daily basis.⁴ The questionnaires that these experts receive are all based on a standardized case study that ensures the comparability of data across economies.⁵

With this paper we are proposing new data that complement the existing Doing Business indicators. The new data were collected between January and June 2012 by adding questions to the questionnaires for 4 out of the 11 indicators: starting a business, dealing with construction permits, getting electricity and registering property. Respondents were asked to assess the ease with which information on incorporation fees, building permit fees, electricity connection tariffs and property registration fees can be accessed in their country.⁶

The four regulatory areas were selected because of the monopolistic positions of the government agencies involved. The clients of company and property registries, building departments and distribution utilities cannot “vote with their feet,” when they are provided with poor service as there is no competitor to turn to. Hence, they are left with only one option, which is to exercise their “voice.” Our hypothesis is that the “voice” option can be exercised more effectively, if clients can point to easily accessible information on binding regulatory standards. We are especially interested in the accessibility of fee schedules because fees are usually set and disseminated by implementing agencies and are not part of a national legislation. Accessibility of this type of regulatory information therefore speaks directly to the openness and transparency efforts of specific government agencies. The new data presented here were collected as part of a new research project on transparency in business regulation and have, in part, subsequently been integrated into existing Doing Business indicators. For example, data on the transparency of electricity tariffs was integrated into a new “regulatory quality and transparency of tariff” index that was added to the getting electricity indicator with the Doing Business 2016 report.⁷

In the questionnaires for all four regulatory areas, respondents had to choose between the following options:

- i) Information on fee schedules is only accessible by meeting with a public official,
- ii) Information on fee schedules can be accessed via the website of the relevant or a related agency and
- iii) Information is available through a public notice or through brochures that can be easily consulted or picked up without prior appointment at the relevant agency.

The last option was specifically added to capture the transparency efforts made by agencies that might not be able to rely on online solutions for connectivity or capital reasons as is the case in many developing economies. On average about 10% of agencies in our sample solely use brochures to distribute information.

The answers to these questions were scored as follows: in cases where a majority of expert respondents chose option ii) or iii) in their response, a value of one was assigned, indicating that information is accessible without the need for an appointment with a government official. In addition, where respondents reported that the information could be obtained online, a fact check of the website was undertaken by the team. On the other hand, if more than half of the respondents chose option i) and an internet search brought up no website, a value of zero was assigned, indicating that the particular type of regulatory information can only be accessed by meeting with an official. Table A1 in Annex 1 provides detailed descriptions of all four new variables as well as the scoring methodology applied and Tables 2 and 3 contain the new data for each country.

3. Description of the Data

Tables 4 and 5 summarize the information that we have collected for the four new variables from 185 economies by income group and region. The sample includes 50 high income, 49 upper-middle income, 53 lower-middle income, and 33 low-income economies. Following the World Bank regional classifications, the data covers 46 of the economies in Sub-Saharan Africa, 18 in the Middle East and North Africa region, 24 in East Asia and the Pacific, 8 in South Asia, 33 in Latin America and the Caribbean, 26 in Europe and Central Asia and 30 in OECD high income economies.⁸

According to the data, worldwide company registries are the public agencies that are most likely to make information easily accessible without the need for meeting a government official. Table 5 presents results by region and income revealing that businesses can access fee schedules for incorporating a new company via a website or through brochures or billboards available at company registries in 79% of all economies in the selected sample. Company registries are least transparent in Sub-Saharan Africa where only 47% of economies make incorporation fees available through brochures and 41% also publish

⁴ Doing Business samples experts rather than firms for two main reasons. The first pertains to the frequency with which firms engage in the transactions captured in the indicators, which is generally low. For instance, a firm goes through the process of starting a business once in its existence while an incorporation lawyer may do several dozen such transactions in a year. Therefore, the experts providing information to Doing Business are better suited for assessing the process of starting a business than individual firms. Second, most of the information gathered through the Doing Business questionnaires is of a legal nature which firms are unlikely to be fully familiar with. For instance, very few firms will know about all the many legal procedures involved in resolving a commercial dispute through the courts, even if they may actually have gone through the process themselves. In contrast, a litigation lawyer would have no difficulty accurately identifying all the necessary steps.

⁵ For more details on the Doing Business methodology please refer to <http://www.doingbusiness.org/methodology>

⁶ The data including the relevant websites is published at <http://www.doingbusiness.org/data/transparency>

⁷ For details of the methodology of the new index see <http://www.doingbusiness.org/methodology/getting-electricity>

⁸ The regional classification is of June 2013.

the fees on the web. By contrast, in more than 90% of OECD high-income economies incorporation fees can be accessed electronically.

The greater relative transparency of company registries may be explained by the great number of reforms that have happened around the world in this particular area of business regulation. Because of the promises that easy start up procedures hold for boosting job creating entrepreneurship many governments around the world have dedicated resources and political capital in the last decade to upgrading their incorporation services. Out of a total of 2,000 business regulatory reforms that were recorded by the Doing Business reports in the past 10 years in 10 business regulatory areas, 58% of all reforms were undertaken in the area of streamlining company registration procedures alone. Consequently, business incorporation is also the area that has seen the greatest convergence to international best practice in the past 10 years (World Bank, 2012).

Access to information on property transfer fees ranks second after incorporation fees in terms of global ease of access, with 64% of all economies in the sample making property transfer fees available via the web, billboards or brochures. But accessibility to information in this particular regulatory area differs greatly across regions. For example, 90% of economies in the OECD high income and Eastern Europe and Central Asia make such information publicly available compared to only 38% of countries in the Middle East and North Africa. Building permitting fees is clearly the category of regulatory information that businesses find most difficult to access, with only 52% of economies in the sample providing such information without the need to make an appointment with an official in the local building department. Easy access to information on electricity connection tariffs is slightly more widespread worldwide with 55% of economies providing access to such information via websites or other materials. However, in some regions, such as Latin America and the Caribbean, South Asia and the Middle East and North Africa, it is easier to obtain information on building permitting fees than on electricity tariffs.

A cross-correlation matrix (Table 6) reveals another important insight. All four cost variables (cost to start a business (as % of GNI per capita), obtain a construction permit (as % of GNI per capita), obtain an electricity connection (as % of GNI per capita) and register property (as % of GNI per capita)) are negatively correlated with the GNI per capita variable; a result that might be explained by the significant fixed costs associated with setting up administrative processes and the relatively lower number of users of these services in poorer countries.

Finally, we proceed to construct an aggregate index that is a simple average of the scores received for a particular country on all four new variables. We refer to the new index as the Regulatory Transparency Index (RTI) and interpret it as a measure of the consistency of governments' efforts at making business regulatory costs transparent. Before aggregating our four variables, we examine how they are correlated with each other to determine whether the new index might suffer from multicollinearity. We find the four new variables to be positively correlated with each other, but not perfectly. The cross-correlation matrix presented in Table 6 shows that the coefficients for the three variables range between 0.05 and 0.83.

Table A2 in the Annex 1 presents the data on the aggregate index for all economies from the highest to the lowest levels of accessibility and availability of business regulatory fee information on country level. Forty-eight economies in the sample make fee schedules in all four regulatory areas easily accessible and receive the highest RTI value of one. Among the 185 economies for which we have data on all four indicators, 35 economies (representing approximately 18% of our dataset) allow convenient access to information within all four areas of business regulation. On the other hand, there are 13 economies where not one fee schedule is can be accessed without meeting an official. These 13 economies receive the lowest aggregate RTI value of zero.

After constructing the aggregate RTI, we submit our new variables to a robustness test by examining how the four new indicators and the RTI behave in relation to other transparency and governance measures. The external transparency indicators used in our analysis include the Voice and Accountability index (Kaufmann et al., 2010), the Open Budget index (International Budget Partnership, 2010), the Transparent Policy Making index (World Economic Forum, 2011), the E-Government Development index and the Open Government index (World Justice Project, 2010).

The results in Table 6 show that our four new indicators and alternative benchmarks of transparency and information accessibility are moderately correlated and with the right sign. However, the cross correlations for our new indicators with established indicators are less pronounced than correlations across those established transparency variables. For example,

Table 1
Country Comparison for Selected Variables.

Country	No. of Fee types with Easy Access	GNI per capita in USD	Internet Users (per 100 persons)
Equatorial Guinea	0 out of 4	14,540	1.56
Bahrain	1 out of 4	23,132	32.91
Greece	2 out of 4	25,030	29.98
Slovenia	3 out of 4	23,610	53.09
Portugal	4 out of 4	21,250	39.75
Eritrea	0 out of 4	430	2.51
Niger	1 out of 4	360	0.39
Mozambique	2 out of 4	470	0.91
Sierra Leone	3 out of 4	340	0.24
Tanzania	4 out of 4	540	0.97

Source: Doing Business 2013 surveys, World Development Indicators.

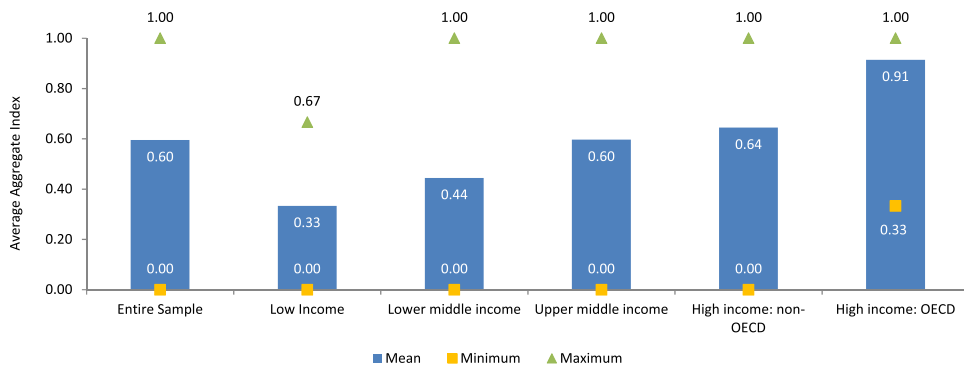


Fig. 1. Regulatory Transparency Index (RTI) by Region.

Source: Doing Business 2013 surveys

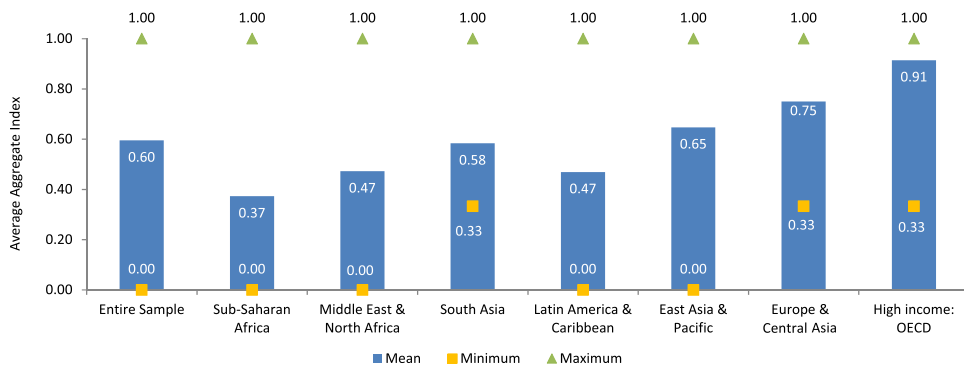


Fig. 2. Regulatory Transparency Index (RTI) by Income Group.

Source: Doing Business 2013 surveys

correlation coefficients between the GNI per capita variable and E-Government Development index and the Open Government index are greater than 73% compared to correlations coefficients below 30% for our new variables and GNI per capita.⁹

4. Data Analysis

4.1. How does regulatory transparency compare across the world?

In this section we provide analysis for the RTI across regions and income groups. The regional distribution for our new index presented in Fig. 1 below shows that government efforts to provide easy and transparent access to information to citizens are least consistent in Sub-Saharan Africa and the Middle East and North Africa. In both cases a regional RTI score of less than 0.5 suggests that the average country in the region makes no more than 1 out of 4 fee schedules easy to access. In Sub-Saharan Africa, only four out of 46 economies (Burkina Faso, Mauritius, South Africa and Tanzania) provide accessibility in all four regulatory areas captured by our new data.

The relatively rich Middle East and North Africa (MENA) region (the average country in the region has a GNI per capita of over 13,000 USD) is the most opaque region in terms of providing access to regulatory information. None of the economies in the region scores positively on all four fee accessibility indicators. This finding is consistent with the findings of other studies that have highlighted lack of transparency in other areas of the region’s economies as one of the biggest constraints to private sector growth (see for example, Williams (2009) and World Bank (2009)). For example, Rocha, Farazi, Khouri, and Pearce, 2011 show that lack of corporate information and poor credit information systems are amongst the main reasons why small and medium-size firms receive little lending in the region.

Aside from interregional variation accessibility to regulatory information also varies positively and significantly by income groups (Fig. 2 below): low-income economies have the worst degree of regulatory transparency while high income economies score the best.

⁹ The correlation for all variables is positive except for the correlation with the transparency in policy making variable. The association here is negative as countries are ranked inversely to other variables, with 1 rather than 0 being the best performance on the transparency in policymaking variable.

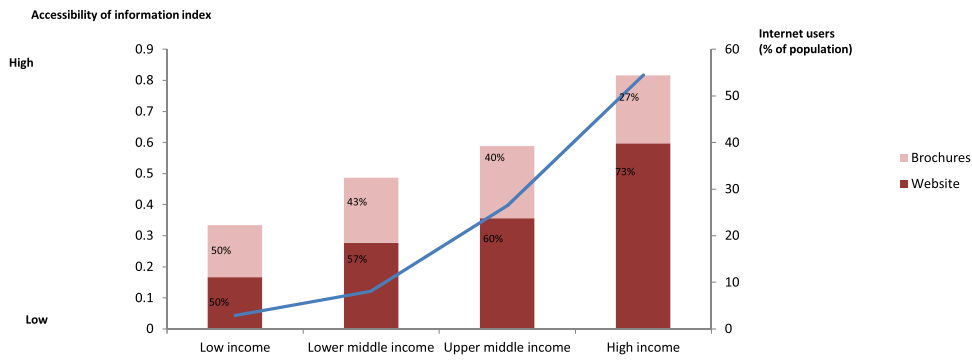


Fig. 3. Accessibility of regulatory information varies with income level and Internet penetration.

Note: The relationship between the RTI and internet connectivity is significant at the 5% level after controlling for income per capita.
Source: Doing Business database; World Bank, World Development Indicators database (2008 data).

Table 2

Regulatory Transparency Index (RTI) and External Variables (Poisson method).

y-variable: Regulatory Transparency Index (RTI) (0-1)							
VARIABLES	(I)	(II)	(III)	(IV)	(V)	(VI)	(XII)
Democracy (Polity IV) (0-10)	0.060*** [0.015]						
Autocracy (Polity IV) (0-10)		-0.059*** [0.023]					
Polity (Polity IV) (0-10)			0.033*** [0.010]				
Freedom house political rights index (1-7)				-0.103*** [0.025]			
Freedom house civil rights index (1-7)					-0.133*** [0.030]		
Control of corruption (0-100)						0.254*** [0.066]	
Internet Usage							0.013*** [0.002]
GNI pc	0.001*** [0.000]	0.001*** [0.000]	0.001*** [0.000]	0.001*** [0.000]	0.001*** [0.000]	0 [0.000]	0 [0.000]
Constant	0.044 [0.111]	0.470** [0.067]	0.245*** [0.078]	0.740*** [0.097]	0.832*** [0.111]	0.488*** [0.060]	0.205*** [0.070]
Observations	126	126	126	149	149	149	148

Source: Doing Business 2013 surveys, World Development Indicators, Freedom House, Polity IV, United Nations.

Robust standard errors in brackets.

** p < 0.05.

* p < 0.1.

*** p < 0.01.

It seems little surprising that we find our RTI not only to be highly correlated with income per capita but also with internet penetration rates (Fig. 3). Richer economies have more resources to spend allowing them to invest in costly online solutions or other information material to make information more accessible to citizens. Online solutions also depend greatly on the degree of connectivity in an economy, which is strongly correlated with income per capita. Bridging the digital divide is costly and poorer countries are, hence, at a disadvantage when they want to engage more actively with citizens via the Internet. However, Fig. 3 also illustrates that poorer countries make relatively greater efforts to invest in non-online solutions. In low-income countries, 50% of the fee schedules that can easily accessed cannot be found online but come in the form of brochures and similar material.

Despite the clear income trend in our data, there is also some noticeable variation within income groups, suggesting resources and internet connectivity seem to explain only some of the variation in how easily information can be accessed. Table 1 below highlights how economies with similar income levels and internet penetration rates show varying degrees of information accessibility: The three high income, high internet penetration economies Greece, Portugal and Bahrain show as much variability in how much information is made accessible as the three low income, low internet penetration economies: namely Sierra Leone, Niger and Tanzania. Both Mozambique and Tanzania with an income per capita of roughly 500 USD manage to make as much information easily accessible as Greece and Portugal, which are two economies with an income per capita nearly 70 times higher.

Table 3
New Transparency Data.

Economy	Region	Income Group	Accessibility of Incorporation Fees	Accessibility of Electricity Connection Fees	Accessibility of Building Permitting Documents	Accessibility of Property Registration Fees	Regulatory Transparency Index
Afghanistan	SA	Low income	1	0	0	0	0.25
Albania	ECA	Lower mid-income	1	1	1	1	1
Algeria	MENA	Upper mid-income	1	0	0	1	0.5
Angola	SSA	Upper mid-income	1	0	0	1	0.5
Antigua and Barbuda	LAC	Upper mid-income	0	0	0	0	0
Argentina	LAC	Upper mid-income	1	0	1	1	0.75
Armenia	ECA	Lower mid-income	1	1	1	1	1
Australia	OECD	High income	1	1	1	1	1
Austria	OECD	High income	1	1	0	1	0.75
Azerbaijan	ECA	Upper mid-income	1	1	0	1	0.75
Bahamas, The	LAC	High income	1	0	1	0	0.5
Bahrain	MENA	High income	1	0	0	0	0.25
Bangladesh	SA	Low income	1	1	1	1	1
Barbados	LAC	High income	1	1	1	1	1
Belarus	ECA	Upper mid-income	1	0	0	1	0.5
Belgium	OECD	High income	1	1	1	1	1
Belize	LAC	Lower mid-income	1	0	1	0	0.5
Benin	SSA	Low income	0	0	1	0	0.25
Bhutan	SA	Lower mid-income	1	0	1	1	0.75
Bolivia	LAC	Lower mid-income	1	0	0	1	0.5
Bosnia and Herzegovina	ECA	Upper mid-income	0	1	1	1	0.75
Botswana	SSA	Upper mid-income	0	0	0	0	0
Brazil	LAC	Upper mid-income	1	1	0	1	0.75
Brunei Darussalam	EAP	High income	0	1	0	0	0.25
Bulgaria	ECA	Upper mid-income	1	1	1	1	1
Burkina Faso	SSA	Low income	1	1	1	1	1
Burundi	SSA	Low income	0	0	1	0	0.25
Cambodia	EAP	Low income	0	0	0	1	0.25
Cameroon	SSA	Lower mid-income	0	0	1	1	0.5
Canada	OECD	High income	1	1	1	1	1
Cape Verde	SSA	Lower mid-income	1	0	0	0	0.25
Central African Republic	SSA	Low income	0	0	1	0	0.25
Chad	SSA	Low income	1	0	0	0	0.25
Chile	LAC	Upper mid-income	1	1	1	1	1
China	EAP	Upper mid-income	1	1	1	1	1
Colombia	LAC	Upper mid-income	1	0	1	1	0.75
Comoros	SSA	Low income	1	1	0	0	0.5
Congo, Dem. Rep.	SSA	Low income	1	0	1	0	0.5
Congo, Rep.	SSA	Lower mid-income	0	0	0	0	0
Costa Rica	LAC	Upper mid-income	1	0	0	1	0.5
Côte d'Ivoire	SSA	Lower mid-income	0	0	0	1	0.25
Croatia	ECA	High income	1	1	0	1	0.75
Cyprus	ECA	High income	1	1	0	1	0.75

Table 3 (Continued)

Economy	Region	Income Group	Accessibility of Incorporation Fees	Accessibility of Electricity Connection Fees	Accessibility of Building Permitting Documents	Accessibility of Property Registration Fees	Regulatory Transparency Index
Czech Republic	OECD	High income	0	1	1	1	0.75
Denmark	OECD	High income	1	1	1	1	1
Djibouti	MENA	Lower mid-income	1	0	0	1	0.5
Dominica	LAC	Upper mid-income	1	0	1	1	0.75
Dominican Republic	LAC	Upper mid-income	1	0	1	1	0.75
Ecuador	LAC	Upper mid-income	0	0	0	1	0.25
Egypt, Arab Rep.	MENA	Lower mid-income	1	1	0	0	0.5
El Salvador	LAC	Lower mid-income	1	1	1	1	1
Equatorial Guinea	SSA	High income	0	0	0	0	0
Eritrea	SSA	Low income	0	0	0	0	0
Estonia	ECA	High income	1	1	1	1	1
Ethiopia	SSA	Low income	0	1	0	0	0.25
Fiji	EAP	Lower mid-income	1	1	1	0	0.75
Finland	OECD	High income	1	1	1	1	1
France	OECD	High income	1	1	1	0	0.75
Gabon	SSA	Upper mid-income	0	0	0	0	0
Gambia, The	SSA	Low income	0	1	0	0	0.25
Georgia	ECA	Lower mid-income	1	1	1	1	1
Germany	OECD	High income	1	1	0	1	0.75
Ghana	SSA	Lower mid-income	1	1	0	1	0.75
Greece	OECD	High income	1	0	0	1	0.5
Grenada	LAC	Upper mid-income	1	0	0	0	0.25
Guatemala	LAC	Lower mid-income	0	1	1	1	0.75
Guinea	SSA	Low income	1	0	1	1	0.75
Guinea-Bissau	SSA	Low income	1	1	0	1	0.75
Guyana	LAC	Lower mid-income	0	1	0	0	0.25
Haiti	LAC	Low income	0	0	1	0	0.25
Honduras	LAC	Lower mid-income	1	0	1	1	0.75
Hong Kong SAR, China	EAP	High income	1	1	1	1	1
Hungary	OECD	High income	0	1	1	0	0.5
Iceland	OECD	High income	1	1	1	1	1
India	SA	Lower mid-income	1	1	0	1	0.75
Indonesia	EAP	Lower mid-income	1	1	0	1	0.75
Iran, Islamic Rep.	MENA	Upper mid-income	1	0	1	0	0.5
Iraq	MENA	Lower mid-income	0	0	0	0	0
Ireland	OECD	High income	1	1	1	1	1
Israel	OECD	High income	1	1	1	1	1
Italy	OECD	High income	1	1	1	1	1
Jamaica	LAC	Upper mid-income	1	1	0	1	0.75
Japan	OECD	High income	1	1	1	1	1
Jordan	MENA	Upper mid-income	1	0	0	1	0.5
Kazakhstan	ECA	Upper mid-income	0	1	0	0	0.25
Kenya	SSA	Low income	1	0	1	1	0.75
Kiribati	EAP	Lower mid-income	0	1	0	0	0.25
Korea, Rep.	OECD	High income	1	1	0	1	0.75

Table 3 (Continued)

Economy	Region	Income Group	Accessibility of Incorporation Fees	Accessibility of Electricity Connection Fees	Accessibility of Building Permitting Documents	Accessibility of Property Registration Fees	Regulatory Transparency Index
Kosovo	ECA	Lower mid-income	1	1	0	1	0.75
Kuwait	MENA	High income	1	0	1	0	0.5
Kyrgyz Republic	ECA	Low income	1	1	0	1	0.75
Lao PDR	EAP	Lower mid-income	0	1	0	0	0.25
Latvia	ECA	Upper mid-income	1	1	1	1	1
Lebanon	MENA	Upper mid-income	1	1	0	0	0.5
Lesotho	SSA	Lower mid-income	0	0	0	1	0.25
Liberia	SSA	Low income	1	0	1	1	0.75
Lithuania	ECA	Upper mid-income	1	1	1	1	1
Luxembourg	OECD	High income	1	0	0	1	0.5
Macedonia, FYR	ECA	Upper mid-income	1	1	1	1	1
Madagascar	SSA	Low income	1	1	0	1	0.75
Malawi	SSA	Low income	0	1	1	0	0.5
Malaysia	EAP	Upper mid-income	1	1	1	1	1
Maldives	SA	Upper mid-income	1	0	0	0	0.25
Mali	SSA	Low income	1	1	1	0	0.75
Malta	ECA	High income	1	0	1	0	0.5
Marshall Islands	EAP	Lower mid-income	0	1	1	0	0.5
Mauritania	SSA	Low income	0	0	0	0	0
Mauritius	SSA	Upper mid-income	1	1	1	1	1
Mexico	LAC	Upper mid-income	1	1	0	1	0.75
Micronesia, Fed. Sts	EAP	Lower mid-income	1	0	0	0	0.25
Moldova	ECA	Lower mid-income	1	1	0	1	0.75
Mongolia	EAP	Lower mid-income	1	0	1	1	0.75
Montenegro	ECA	Upper mid-income	1	1	0	1	0.75
Morocco	MENA	Lower mid-income	1	0	0	1	0.5
Mozambique	SSA	Low income	0	0	1	1	0.5
Namibia	SSA	Upper mid-income	0	1	1	0	0.5
Nepal	SA	Low income	1	0	1	0	0.5
Netherlands	OECD	High income	1	1	1	1	1
New Zealand	OECD	High income	1	1	1	1	1
Nicaragua	LAC	Lower mid-income	0	1	1	1	0.75
Niger	SSA	Low income	1	0	0	0	0.25
Nigeria	SSA	Lower mid-income	1	0	0	1	0.5
Norway	OECD	High income	1	0	1	1	0.75
Oman	MENA	High income	1	1	1	0	0.75
Pakistan	SA	Lower mid-income	1	1	1	0	0.75
Palau	EAP	Upper mid-income	1	0	0	1	0.5
Panama	LAC	Upper mid-income	1	1	0	0	0.5
Papua New Guinea	EAP	Lower mid-income	1	1	0	1	0.75
Paraguay	LAC	Lower mid-income	1	0	0	1	0.5

Table 3 (Continued)

Economy	Region	Income Group	Accessibility of Incorporation Fees	Accessibility of Electricity Connection Fees	Accessibility of Building Permitting Documents	Accessibility of Property Registration Fees	Regulatory Transparency Index
Peru	LAC	Upper mid-income	1	1	0	1	0.75
Philippines	EAP	Lower mid-income	1	1	0	1	0.75
Poland	OECD	High income	1	1	0	1	0.75
Portugal	OECD	High income	1	1	1	1	1
Puerto Rico	LAC	High income	1	0	1	1	0.75
Qatar	MENA	High income	1	0	1	0	0.5
Romania	ECA	Upper mid-income	1	1	0	1	0.75
Russian Federation	ECA	Upper mid-income	0	1	0	1	0.5
Rwanda	SSA	Low income	1	0	1	1	0.75
Samoa	EAP	Lower mid-income	1	0	1	0	0.5
São Tomé and Príncipe	SSA	Lower mid-income	1	0	1	1	0.75
Saudi Arabia	MENA	High income	1	1	0	0	0.5
Senegal	SSA	Lower mid-income	1	0	1	0	0.5
Serbia	ECA	Upper mid-income	1	1	0	1	0.75
Seychelles	SSA	Upper mid-income	1	0	0	1	0.5
Sierra Leone	SSA	Low income	1	0	1	1	0.75
Singapore	EAP	High income	1	1	1	1	1
Slovak Republic	OECD	High income	1	1	1	1	1
Slovenia	OECD	High income	1	1	0	1	0.75
Solomon Islands	EAP	Lower mid-income	1	0	0	0	0.25
South Africa	SSA	Upper mid-income	1	1	1	1	1
Spain	OECD	High income	1	1	1	1	1
Sri Lanka	SA	Lower mid-income	1	0	1	1	0.75
St. Kitts and Nevis	LAC	High income	0	0	1	0	0.25
St. Lucia	LAC	Upper mid-income	0	1	1	0	0.5
St. Vincent and the Grenadines	LAC	Upper mid-income	1	0	1	0	0.5
Sudan	SSA	Lower mid-income	0	1	0	0	0.25
Suriname	LAC	Upper mid-income	1	0	0	0	0.25
Swaziland	SSA	Lower mid-income	1	0	1	0	0.5
Sweden	OECD	High income	1	1	1	1	1
Switzerland	OECD	High income	1	1	1	1	1
Syrian Arab Republic	MENA	Lower mid-income	1	0	0	0	0.25
Taiwan, China	EAP	High income	1	1	1	1	1
Tajikistan	ECA	Low income	1	1	0	0	0.5
Tanzania	SSA	Low income	1	1	1	1	1
Thailand	EAP	Upper mid-income	1	1	1	1	1
Timor-Leste	EAP	Lower mid-income	1	1	1	0	0.75
Togo	SSA	Low income	1	0	0	0	0.25
Tonga	EAP	Lower mid-income	1	1	0	0	0.5
Trinidad and Tobago	LAC	High income	1	1	1	1	1
Tunisia	MENA	Upper mid-income	1	0	0	1	0.5
Turkey	ECA	Upper mid-income	1	1	1	1	1
Uganda	SSA	Low income	1	0	1	1	0.75

Table 3 (Continued)

Economy	Region	Income Group	Accessibility of Incorporation Fees	Accessibility of Electricity Connection Fees	Accessibility of Building Permitting Documents	Accessibility of Property Registration Fees	Regulatory Transparency Index
Ukraine	ECA	Lower mid-income	1	1	0	1	0.75
United Arab Emirates	MENA	High income	1	0	1	1	0.75
United Kingdom	OECD	High income	1	1	1	1	1
United States	OECD	High income	1	1	1	1	1
Uruguay	LAC	Upper mid-income	1	0	1	1	0.75
Uzbekistan	ECA	Lower mid-income	0	1	0	1	0.5
Vanuatu	EAP	Lower mid-income	1	0	0	1	0.5
Venezuela, RB	LAC	Upper mid-income	1	0	0	0	0.25
Vietnam	EAP	Lower mid-income	1	1	1	1	1
West Bank and Gaza	MENA	Lower mid-income	1	0	0	0	0.25
Yemen, Rep.	MENA	Lower mid-income	1	0	0	1	0.5
Zambia	SSA	Lower mid-income	1	0	0	1	0.5
Zimbabwe	SSA	Low income	1	1	0	0	0.5

Note: See <http://www.doingbusiness.org/data/transparency> for links to the relevant websites to access fee schedules.

Table 4

Transparency Data by Income Group.

	Accessibility of Information on Company Incorporation Fees	Accessibility of Information on Building Permitting Fees	Accessibility of Information on Electricity Connection Fees	Accessibility of Information on Property Registration Fees	Regulatory Transparency Index
Entire Sample					
Number of Economies	185	185	185	185	185
Average	0.79	0.52	0.55	0.64	0.62
Low Income					
Number of Economies	33	33	33	33	33
Average	0.66	0.54	0.39	0.42	0.50
Lower middle income					
Number of Economies	53	53	53	53	53
Average	0.75	0.39	0.49	0.60	0.56
Upper middle income					
Number of Economies	49	49	49	49	49
Average	0.81	0.42	0.53	0.71	0.62
High income					
Number of Economies	50	50	50	50	50
Average	0.90	0.74	0.76	0.76	0.79

4.2. What are commonalities amongst governments that make information easily accessible?

Further we would like to explore what factors other than resources might explain differences between countries on our new composite index. It is, for example, conceivable that governments choose to invest in transparency simply in order to be more responsive to the needs of their citizens. This could, for example, be the case in political systems that are more democratic and where political and civil rights such as the freedom of expression are more strongly valued and citizens demand more access to information. However, it is also conceivable that more information strengthens democracies by providing citizens with more information to put in question government policies and actions.

To explore this question we examine if resources (as proxied by income levels) and different political systems correlate with the transparency efforts of different governments by adding the income variable as a control to correlations between our new RTI and indicators on different forms of government, such as the Democracy and Autocracy Scores of the POLITY IV database and the Freedom House Political Rights and Civil Rights indicators (Table 2). For our analysis we use a Poisson specification because the dependent variable is a non-negative integer. We find that economies that make more information easily accessible tend to be also more democratic (and hence less autocratic), and have stronger political and civil rights guaranteed to the citizens, even after controlling for income per capita.

Table 5
Transparency Data by Region.

	Accessibility of Information on Company Incorporation Fees	Accessibility of Information on Building Permitting Fees	Accessibility of Information on Electricity Connection Fees	Accessibility of Information on Property Registration Fees	Regulatory Transparency Index
Entire Sample					
Number of Economies	185	185	185	185	185
Average	0.79	0.52	0.55	0.64	0.62
East Asia & Pacific					
Number of Economies	24	24	24	24	24
Average	0.79	0.50	0.70	0.58	0.64
Europe & Central Asia					
Number of Economies	26	26	26	26	26
Average	0.84	0.42	0.84	0.88	0.76
High income: OECD					
Number of Economies	30	30	30	30	30
Average	0.93	0.76	0.90	0.93	0.88
Latin America & Caribbean					
Number of Economies	33	33	33	33	33
Average	0.75	0.57	0.39	0.63	0.59
Middle East & North Africa					
Number of Economies	18	18	18	18	18
Average	0.94	0.27	0.22	0.38	0.45
South Asia					
Number of Economies	8	8	8	8	8
Average	1.00	0.62	0.37	0.50	0.62
Sub-Saharan Africa					
Number of Economies	46	46	46	46	46
Average	0.60	0.47	0.32	0.47	0.47

We also correlate our new index with the Control of Corruption indicator of the Worldwide Governance Indicators (Kaufmann et al., 2010) and find that our new index is positively correlated with the Control of Corruption variable. However, we also find that our income control variable loses its statistical significance suggesting that the Control of Corruption variable might simply be mirroring an overall income effect. Our analysis cannot determine causality, but the association that we find is consistent with similar findings of other authors who have presented evidence that more access to information is associated with greater control of corruption and better overall governance. For example, Islam (2006) finds that governments that are timelier in the release of important political and macroeconomic data are also governments that rank better on various measures of good governance. Djankov, La Porta, López-de-Silanes, and Shleifer (2009) find that corruption is lower in countries where politicians face more stringent disclosure requirements of their assets and business interests. And, Williams (2009) by means of granger-causality regressions shows that the release of information by governments has a positive short-term effect on the quality of bureaucracy.

4.3. Is greater access to regulatory information associated with better regulation?

After investigating which factors make it more likely that regulatory information is easily accessible we also would like to know if more access to regulatory information goes hand in hand with greater regulatory quality. We would expect that greater regulatory quality is associated with greater accessibility of regulatory information. Our hypothesis is that where information is easily accessible it should also be easier for citizens to demand better regulatory quality. This in turn could lead to improvements in the quality of regulatory services. However, it is also possible that greater regulatory quality leads to greater regulatory transparency because better regulations can only be achieved by clarifying the rules.

We correlate the new indicators and the RTI, with both: a) a measure of business regulatory quality and efficiency (as measured by the Ease of Doing Business Ranking) (Table 7) another measure of general regulatory quality (the Regulatory Quality Variable of the Worldwide Governance Indicators by Kaufmann, Aart, and Massimo (2010)) (Table 8).

We run each regression with the log of per capita GNI to make sure that we are not picking up the general effects of good governance associated with higher income levels. We find that greater access to regulatory information is associated with a better ranking on the Ease of Doing Business (both for the individual information accessibility indicators and the aggregate RTI) (Table 7). As a robustness test we run a number of regressions on our new data that also control for other external variables of government openness and transparency (Table 7). We exclude the Open Government Index from this analysis because of the small number of observations available for this indicator.

The results suggest that most of the transparency indicators in the analysis complement rather than substitute each other. The three variables that have the greatest predictive power for the Ease of Doing Business Ranking and whose predictive power is most robust to the inclusion of other control variables are the Transparent Policy Making Ranking, the E-Government Development Index and our new Regulatory Transparency Index. The income variable loses its statistical significance when the E-Government Index is included as a control, which is not surprising given the high correlation between this variable

Table 6
Correlations Matrix.

	Accessibility of incorporation fees	Accessibility of electricity connection permit fees	Accessibility of electricity connection fees	Accessibility of property registration fees	Incorporation procedures	Construction procedures	Electricity procedures	Property procedures	Accessibility of incorporation fees	Accessibility of electricity connection fees	Accessibility of construction permit fees	Accessibility of property registration fees	Regulatory Transparency Index	Ease of DB (rank)	Regulatory Quality	Voice and Accountability	OBI Rank	Transparent Policymaking Rank	E-Government Development Index	Open Government (WJP)	GNI pc
Accessibility of incorporation fees	1																				
Accessibility of construction permit fees	0.3480*	1																			
Accessibility of electricity connection fees	0.6024*	0.4238*	1																		
Accessibility of property registration fees	0.3283*	0.1693*	0.2310*	1																	
Incorporation procedures	0.3045*	0.0829	0.0229	0.037	1																
Construction procedures	-0.0889	-0.0115	-0.0194	-0.1710*	0.1508*	1															
Electricity procedures	-0.0483	0.0702	0.0176	-0.0111	0.1529*	0.2862*	1														
Property procedures	0.0954	0.0971	0.0433	0.1454	0.3241*	0.0815	0.3050*	1													
Accessibility of incorporation fees	-0.1920*	-0.0998	-0.1860*	-0.0748	-0.1943*	-0.068	-0.0604	-0.0832	1												
Accessibility of electricity connection fees	-0.2440*	-0.1256	-0.1910*	-0.1999*	-0.2910*	0.0579	0.0882	-0.1332	0.0445	1											
Accessibility of construction permit fees	-0.1068	-0.2173*	0.0383	-0.0167	-0.1987*	-0.1012	-0.1592*	-0.1597*	0.0929	0.099	1										
Accessibility of property registration fees	-0.2994*	-0.1446	-0.2219*	-0.1255	-0.1415	0.1046	0.1634*	-0.0332	0.3371*	0.2122*	0.1394	1									
Regulatory Transparency Index	-0.3474*	-0.2150*	-0.2262*	-0.1734*	-0.3433*	-0.0062	0.0161	-0.1715*	0.5565*	0.5865*	0.5751*	0.6953*	1								
Ease of DB (rank)	0.5359*	0.3643*	0.4626*	0.3135*	0.4746*	0.1509*	0.1812*	0.3131*	-0.3283*	-0.4343*	-0.3081*	-0.3665*	-0.5965*	1							
Regulatory Quality	-0.4124*	-0.3398*	-0.3742*	-0.1854*	-0.3486*	-0.1431	-0.1688*	-0.2062*	0.2490*	0.3974*	0.3371*	0.3785*	0.5702*	-0.8350*	1						
Voice and Accountability	-0.3398*	-0.2902*	-0.3095*	-0.0767	-0.2965*	-0.1955*	-0.1711*	-0.1134	0.2086*	0.2676*	0.2896*	0.2834*	0.4380*	-0.5787*	0.7135*	1					
OBI Rank	-0.3930*	-0.2495*	-0.3312*	-0.3504*	-0.1793	-0.0047	0.0587	-0.0072	0.1726	0.4431*	0.1314	0.3556*	0.4853*	-0.6145*	0.6936*	0.7612*	1				
Transparent Policymaking Rank	0.3478*	0.1953*	0.2863*	-0.0884	0.3825*	0.1108	0.1629	0.2717*	-0.2595*	-0.3292*	-0.2346*	-0.2830*	-0.4496*	0.7096*	-0.6881*	-0.4962*	-0.4146*	1			
E-Government Development Index	-0.5192*	-0.3613*	-0.4931*	-0.2999*	-0.2472*	-0.0328	0.0425	-0.1249	0.2748*	0.4039*	0.1841*	0.3626*	0.5105*	-0.8245*	0.8106*	0.6016*	0.6527*	-0.5642*	1		
Open Government (WJP)	-0.3748*	-0.3312*	-0.4681*	-0.1795	-0.2679*	-0.2630*	-0.2320	-0.3427*	0.2527*	0.3720*	0.2213	0.3045*	0.5227*	-0.7947*	0.8297*	0.7443*	0.6879*	-0.7355*	0.8328*	1	
GNI pc	-0.3012*	-0.2350*	-0.2773*	-0.1391	-0.2048*	-0.1740*	-0.1634*	-0.1709*	0.2079*	0.1907*	0.2578*	0.1826*	0.3475*	-0.6238*	0.7210*	0.5316*	0.5234*	-0.5671*	0.7343*	0.7883*	1

Table 7

Ease of Doing a Business, distance to frontier, score (1–100).

Accessibility of incorporation fees (0-1)	4.486 ^{***} [1.295]									
Accessibility of electricity connection fees (0-1)		5.834 ^{***} [1.132]								
Accessibility of construction permit fees (0-1)			4.950 ^{***} [1.138]							
Accessibility of property registration fees (0-1)				6.200 ^{***} [1.168]						
Regulatory Transparency Index (0-1)					16.122 ^{**} [2.013]					
Voice and Accountability (0-100)						3.030 ^{***} [0.778]				
OBI Rank (0-100)							0.168 ^{**} [0.042]			
Transparent Policymaking Rank (1-7)								-0.117 ^{***} [0.023]		
E-Government Development Index (0-1)									44.498 ^{**} [5.516]	
Open Government (WJP) (0-1)										41.417 ^{***} [11.195]
Log GNI pc	6.178 ^{***} [0.388]	5.936 ^{***} [0.363]	6.169 ^{***} [0.375]	6.032 ^{***} [0.350]	5.325 ^{***} [0.354]	5.320 ^{***} [0.491]	4.413 ^{***} [0.672]	4.791 ^{***} [0.564]	0.846 [0.762]	3.020 ^{**} [1.213]
Constant	5.435 [*] [3.196]	7.801 ^{**} [3.051]	6.483 ^{**} [3.089]	6.251 ^{**} [2.934]	6.080 ^{**} [2.719]	16.418 ^{***} [4.075]	17.199 ^{***} [4.601]	30.943 ^{***} [5.985]	31.900 ^{**} [4.128]	17.613 ^{***} [5.950]
Observations	185	185	185	185	185	183	93	118	178	66
R-squared	0.596	0.627	0.601	0.614	0.689	0.599	0.533	0.693	0.684	0.662

Robust standard errors in brackets.

*** p < 0.01.

** p < 0.05.

* p < 0.1.

Table 8
Regulatory Quality score (–2.5 to +2.5), full sample.

Accessibility of incorporation fees (0-1)	0.212 [*] [0.118]									
Accessibility of electricity connection fees (0-1)		0.380 ^{***} [0.093]								
Accessibility of construction permit fees (0-1)			0.404 ^{***} [0.082]							
Accessibility of property registration fees (0-1)				0.436 ^{***} [0.093]						
Regulatory Transparency Index (0-1)					1.096 ^{***} [0.157]					
Voice and Accountability (0-100)						0.382 ^{***} [0.062]				
OBI Rank (0-100)							0.014 ^{***} [0.003]			
Transparent Policymaking Rank (1-7)								–0.008 ^{***} [0.002]		
E-Government Development Index (0-1)									2.553 ^{***} [0.471]	
Open Government (WJP) (0-1)										3.197 ^{***} [0.812]
GNI pc	0.476 ^{***} [0.028]	0.454 ^{***} [0.028]	0.466 ^{***} [0.025]	0.458 ^{***} [0.025]	0.411 ^{***} [0.027]	0.342 ^{***} [0.036]	0.272 ^{***} [0.045]	0.391 ^{***} [0.039]	0.167 ^{**} [0.066]	0.196 ^{**} [0.086]
Constant	–4.199 ^{***} [0.231]	–4.058 ^{***} [0.228]	–4.157 ^{***} [0.212]	–4.160 ^{***} [0.212]	–4.172 ^{***} [0.199]	–2.877 ^{***} [0.304]	–2.891 ^{***} [0.301]	–2.620 ^{***} [0.427]	–2.696 ^{***} [0.355]	–3.047 ^{***} [0.375]
Observations	183	183	183	183	183	183	93	117	178	66
R-squared	0.622	0.652	0.66	0.662	0.713	0.709	0.63	0.765	0.673	0.719

Robust standard errors in brackets.

*** p < 0.01.

** p < 0.05.

* p < 0.1.

and the GNI per capita as presented in Table 6a. The Voice and Accountability Index has no predictive power for the Ease of Doing Business in our specifications.

We repeat the same analysis using the Regulatory Quality Index of the Worldwide Governance Indicators as dependent variable and find results that are very similar to those using the Ease of Doing Business ranking as dependent variable (Table 7) with the exception that the sign of the correlations is reversed because the Regulatory Quality Index is inversely scaled to the Ease of Doing Business.¹⁰ Similar to the analysis of the Ease of Doing Business, the results are robust to the inclusion of other proxies of transparency and information availability (Table 8). Also, in this set of regressions the Voice and Accountability Index has predictive power for the Regulatory Quality index. Where the Voice and Accountability Index is included the Open Budget Index has no significant predictive power.

5. Conclusion

An analysis of the information practices of 185 economies shows that countries that fare well on a wide range of transparency and governance measures are also countries where firms do not have to contact an official to obtain basic regulatory information such as fee schedules. Instead, such information can be found either online or on billboards or through brochures that are readily available at the relevant agencies. While differences in income can explain in part why some countries make information easily accessible and others not, the political system of each country also seems to play a role. Greater access to information is associated with more democracy and less corruption. Finally, the data also shows that business regulation tends to be of greater quality in those countries where regulatory information can be easily accessed. The correlations presented here cannot answer the question whether greater access to information leads to better governance or whether better governance leads to greater access to information. They do, however, make the case that transparency and good governance tend to come together. The paper also shows that improving transparency does not always have to be resource-intensive and technology based. Sometimes printing a simple brochure can be enough.

Annex 1.

Table A1

Description of indicators and variables used.

Variable	Source	Sample	Description/Methodology
Accessibility of information on company incorporation fees	Doing Business 2011 data, the World Bank Group	174 countries	Fee schedules are considered "easily accessible" if information related to the incorporation of a new company can be obtained either via the website of the company registry, or through public notices (notice boards and brochures) available at the registry or another related agency, without the need to schedule appointments with officials. Incorporation fee schedules are considered "not easily accessible" if they can only be obtained by meeting with an official. Economies where information is "accessible" are assigned the value of "1", economies where information is "not easily accessible" are assigned the value of "0".
Accessibility of information on electricity connection tariffs	Doing Business 2011 data, the World Bank Group	181 countries	Electricity connection* tariffs are considered "easily accessible" if tariff details can be obtained either via the website of the distribution utility or the electricity regulator, or through laws, regulations and public notices, without the need for appointments with officials/utility employees. Connection tariff schedules are considered "not easily accessible" if they can only be obtained by meeting with an official. Economies where information is "accessible" are assigned the value of "1", economies where information is "not easily accessible" are assigned the value of "0". *not consumption Electricity connection* tariffs are considered "easily accessible" if tariff details can be obtained either via the website of the distribution utility or the electricity regulator, or through laws, regulations and public notices, without the need for appointments with officials/utility employees. Connection tariff schedules are considered "not easily accessible" if they can only be obtained by meeting with an official. Economies where information is "accessible" are assigned the value of "1", economies where information is "not easily accessible" are assigned the value of "0". *not consumption

¹⁰ Lower ratings indicate a better performance on the Ease of Doing Business but a worse performance on the Regulatory Quality Index.

Table A1 (Continued)

Variable	Source	Sample	Description/Methodology
Accessibility of information on building permitting fees	Doing Business 2011 data, the World Bank Group	159 countries	The fees associated with obtaining a building permit are considered easily accessible if they can be obtained either via the website of the building department or another relevant agency, or are available through public notices, without the need to schedule appointments with officials. Building permitting fee schedules are considered not easily accessible if they can only be obtained by appointment with officials. Economies where fee information is accessible are assigned the value of 1; economies where fee information is not easily accessible are assigned the value of 0.
Accessibility of information on building permitting fees	Doing Business 2011 data, the World Bank Group	149 countries	Sub-indicator from the Doing Business Starting a Business indicator. It includes all official fees and fees for legal or professional services if such services are required by law. Fees for purchasing and legalizing company books are included if these transactions are required by law. The company law, the commercial code and specific regulations and fee schedules are used as sources for calculating costs. In the absence of fee schedules, a government officer's estimate is taken as an official source. In the absence of a government officer's estimate, estimates of incorporation lawyers are used. If several incorporation lawyers provide different estimates, the median reported value is applied. In all cases the cost excludes bribes.
Cost to obtain an electricity connection (% of income per capita)	Doing Business 2011 data, the World Bank Group	183 economies	Sub-indicator from the Doing Business Getting Electricity indicator. Cost is recorded as a percentage of the economy's income per capita. Costs are recorded exclusive of value added tax. All the fees and costs associated with completing the procedures to connect a warehouse to electricity are recorded, including those related to obtaining clearances from government agencies, applying for the connection, receiving inspections of both the site and the internal wiring, purchasing material, getting the actual connection works and paying a security deposit. Information from local experts and specific regulations and fee schedules are used as sources for costs. If several local partners provide different estimates, the median reported value is used. In all cases the cost excludes bribes.
Cost to Obtain a Building Permit (% of income per capita)	Doing Business 2011 data, the World Bank Group	183 economies	Sub-indicator collected from the Doing Business Dealing with Construction Permits indicator on the costs associated with obtaining a construction permit for a standardized construction case. Cost is recorded as a percentage of the economy's income per capita. Only official costs are recorded. The cost value here only includes the costs associated with obtaining the building permit itself while the cost estimate of the "Dealing with Construction Permits" indicator also includes the costs associated with inspections, land use approvals and pre-construction clearances. The building code, information from local experts and specific regulations and fee schedules are used as sources for cost estimates. If several local partners provide different estimates, the median reported value is used.
Doing Business rank	Doing Business 2011 data, the World Bank Group	183 economies	The overall rank of the ease of doing business in economies world-wide. The ease of Doing Business indicator provides quantitative measures of regulations for starting a business, dealing with construction permits, getting electricity, registering property, getting credit, protecting investors, paying taxes, trading across borders, enforcing contracts and resolving insolvency.
Regulatory quality	Worldwide Governance Indicators, Kaufmann et al., 2010	213 economies	This variable captures perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.
Voice and accountability	Worldwide Governance Indicators, Kaufmann et al., 2010	213 economies	This variable captures perceptions of the extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media.
Open budget index	Open Budget Survey 2010, International Budget Partnership	94 economies	The index measures budget transparency and accountability by assigning countries a transparency score using 92 questions from the annual Open Budget Survey which determine the overall commitment of countries to transparency.
Transparent policy making	World Economic Forum	123 economies	This variable measures how easy is for the businesses to obtain information regarding changes in government policies and regulations. The values range from 1 to 7, where the lowest value means that having access to the information is impossible, and the highest value means that it is extremely easy.
E-Government Development Index	UN E-Government Survey 2012	93 UN member states	The United Nations e-government development index is a composite indicator measuring the willingness and capacity of national administrations to use information and communication technology to deliver public services. The index is a weighted average of three normalized scores on 3 dimensions of e-government: (i) scope and quality of online services, (ii) development status of telecommunication infrastructure, and (iii) inherent human capital.

Table A1 (Continued)

Variable	Source	Sample	Description/Methodology
Open Government (WJP)	World Justice Project – Rule of Law Index (Factor 5 – Open Government)	65 countries and 1 additional jurisdiction	Open Government includes at its core the opportunity to know what the law is and what conduct is permitted and prohibited. Questionnaires are administered to more than 300 potential local experts per country through leading local polling companies. The Open Government index consists of 36 variables combined to form the following six sub-factors: 1 The laws are comprehensible to the public 2 The laws are publicized and widely accessible 3 The laws are stable 4 The right to petition the government and public participation is effectively guaranteed 5 Official drafts of laws and regulations are available to the public 6 Official information is available on request Open Government score is an average of these sub-factors. All scores range between 0 and 1, where 1 signifies a higher adherence to the rule of law.
Autocracy (Polity IV)	Integrated Network for Societal Conflict Research (INSCR) - Center for Systemic Peace	164 countries	Democracy is conceived as three essential, interdependent elements. One is the presence of institutions and procedures through which citizens can express effective preferences about alternative policies and leaders. Second is the existence of institutionalized constraints on the exercise of power by the executive. Third is the guarantee of civil liberties to all citizens in their daily lives and in acts of political participation. The Democracy indicator is an additive eleven-point scale (0-10). The operational indicator of democracy is derived from codings of the competitiveness of political participation, the openness and competitiveness of executive recruitment, and constraints on the chief executive.
Autocracy (Polity IV)	Integrated Network for Societal Conflict Research (INSCR) - Center for Systemic Peace	164 countries	Autocracy is defined operationally in terms of the presence of a distinctive set of political characteristics. In mature form, autocracies sharply restrict or suppress competitive political participation. Their chief executives are chosen in a regularized process of selection within the political elite, and once in office they exercise power with few institutional constraints. An eleven-point Autocracy scale is constructed additively. Our operational indicator of autocracy is derived from codings of the competitiveness of political participation, the regulation of participation, the openness and competitiveness of executive recruitment, and constraints on the chief executive.
Polity (Polity IV)	Integrated Network for Societal Conflict Research (INSCR) - Center for Systemic Peace	164 countries	The POLITY variable provides a convenient avenue for examining general regime effects in analyses. The POLITY score is computed by subtracting the Autocracy score from the Democracy score; the resulting unified polity scale ranges from +10 (strongly democratic) to -10 (strongly autocratic).
Freedom house political rights index	Freedom House - Freedom in the World 2012	195 countries and 14 related and disputed territories	Political rights ratings are based on an evaluation of three subcategories: electoral process, political pluralism and participation, and functioning of government.
Freedom House - Freedom in the World 2012	Freedom House - Freedom in the World 2012	195 countries and 14 related and disputed territories	Civil liberties ratings are based on an evaluation of four subcategories: freedom of expression and belief, associational and organizational rights, rule of law, and personal autonomy and individual rights. Each country is assigned a numerical rating from 1 to 7 for both political rights and civil liberties, with 1 representing the most free and 7 the least free. The average of the political rights and civil liberties ratings, known as the freedom rating, determines the overall status. House also assigns upward or downward trend arrows to countries which saw general positive or negative trends during the year that were not significant enough to result in a ratings change.
Control of corruption	Worldwide Governance Indicators - Control of Corruption (CC)	213 countries	The CC indicator captures perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as capture of the state by elites and private interests. The CC indicator is forms part of the Worldwide Governance Indicators, which draw on data from 31 different sources that provide information on various aspects of governance. The aggregate indicators combine the views of a large number of enterprise, citizen and expert survey respondents in industrial and developing countries. The individual data sources underlying the aggregate indicators are drawn from a diverse variety of survey institutes, think tanks, non-governmental organizations, and international organizations.

Table A1 (Continued)

Variable	Source	Sample	Description/Methodology
Rule of law	Worldwide Governance Indicators- Rule of Law (RL)	213 countries	This indicator capture perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence. The Rule of Law indicator forms part of the Worldwide Governance Indicators.
HDI	Human Development Report 2011	187 countries	The HDI combined three dimensions: (i) Life expectancy at birth, as an index of population health and longevity; (ii) Knowledge and education, as measured by the adult literacy rate (with two-thirds weighting) and the combined primary, secondary, and tertiary gross enrollment ratio (with one-third weighting); and (iii) Standard of living, as indicated by the natural logarithm of gross domestic product per capita at purchasing power parity.
Gini coefficient	The World Bank	137 countries	The Gini coefficient measures the inequality among values of a frequency distribution. A Gini coefficient of zero expresses perfect equality where all values are the same. Meanwhile, a Gini coefficient of one expresses maximal inequality among values.
Mean years of schooling (UNSD)	Human Development Report 2011	187 countries	Average number of years of education received by people ages 25 and older, converted from education attainment levels using official durations of each level.
Expected years of schooling (UNSD)	Human Development Report 2011	190 countries	Number of years of schooling that a child of school entrance age can expect to receive if prevailing patterns of age-specific enrolment rates persist throughout the child's life.
Shadow Economy (size)	Schneider, Friedrich, Buehn, Andreas and Montenegro, Claudio E.(2010)	162 countries	Database of the size and trend of the shadow economy as a percentage of official GDP. The empirical method used in this paper is based on the statistical theory of unobserved variables, which considers multiple causes and multiple indicators of the phenomenon to be measured. For instance, it explicitly considers multiple causes leading to the existence and growth of the shadow economy, as well as the multiple effects of the shadow economy over time.
Internet Usage	World Development Indicators	142 countries	Internet users per 1,000 people

Table A2

Economies by score on the Regulatory Transparency Index (RTI).

1.00 (Highest)	0.66	0.33	0.00 (Lowest)
Australia	Afghanistan	Antigua and Barbuda	Angola
Austria	Albania	Armenia	Bolivia
Belgium	Argentina	Bahamas, The	Cameroon
Bulgaria	Bahrain	Bangladesh	Chad
Canada	Brunei Darussalam	Belarus	Congo, Dem. Rep.
Cape Verde	Burkina Faso	Belize	Congo, Rep.
Croatia	Colombia	Benin	Djibouti
Cyprus	Côte d'Ivoire	Bosnia and Herzegovina	Dominican Republic
Denmark	Czech Republic	Botswana	Equatorial Guinea
Estonia	Dominica	Burundi	Haiti
Finland	Ecuador	Central African Republic	Lesotho
France	El Salvador	China	Micronesia, Fed. Sts.
Georgia	Fiji	Comoros	Sierra Leone
Germany	Guinea-Bissau	Costa Rica	
Hong Kong SAR, China	Indonesia	Egypt, Arab Rep.	
Hungary	Jordan	Eritrea	
Iceland	Kazakhstan	Gabon	
Ireland	Lao PDR	Gambia, The	
Israel	Latvia	Greece	
Italy	Lebanon	Grenada	
Japan	Madagascar	Guatemala	
Korea, Rep.	Mongolia	Guinea	
Lithuania	New Zealand	Guyana	
Luxembourg	Nigeria	Honduras	
Marshall Islands	Papua New Guinea	India	
Mauritius	Peru	Jamaica	
Mexico	Poland	Kenya	
Morocco	Puerto Rico	Kuwait	
Netherlands	Russian Federation	Liberia	
Norway	São Tomé and Príncipe	Macedonia, FYR	

Table A2 (Continued)

1.00 (Highest)	0.66	0.33	0.00 (Lowest)
Pakistan	Saudi Arabia	Malawi	
Portugal	South Africa	Mali	
Romania	Tanzania	Mauritania	
Serbia	Trinidad and Tobago	Mozambique	
Singapore	Vietnam	Namibia	
Slovak Republic		Nicaragua	
Slovenia		Niger	
Spain		Oman	
St. Vincent and the Grenadines		Philippines	
Sweden		Rwanda	
Switzerland		Senegal	
Taiwan, China		Seychelles	
Thailand		Solomon Islands	
Turkey		St. Kitts and Nevis	
United Kingdom		St. Lucia	
United States		Sudan	
Uruguay		Tonga	
Zambia		Tunisia	
		Uganda	
		United Arab Emirates	
		Venezuela, R.B.	
		Yemen, Rep.	

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