The World Bank Group

Doing Business - Answers to frequently asked questions

Contents

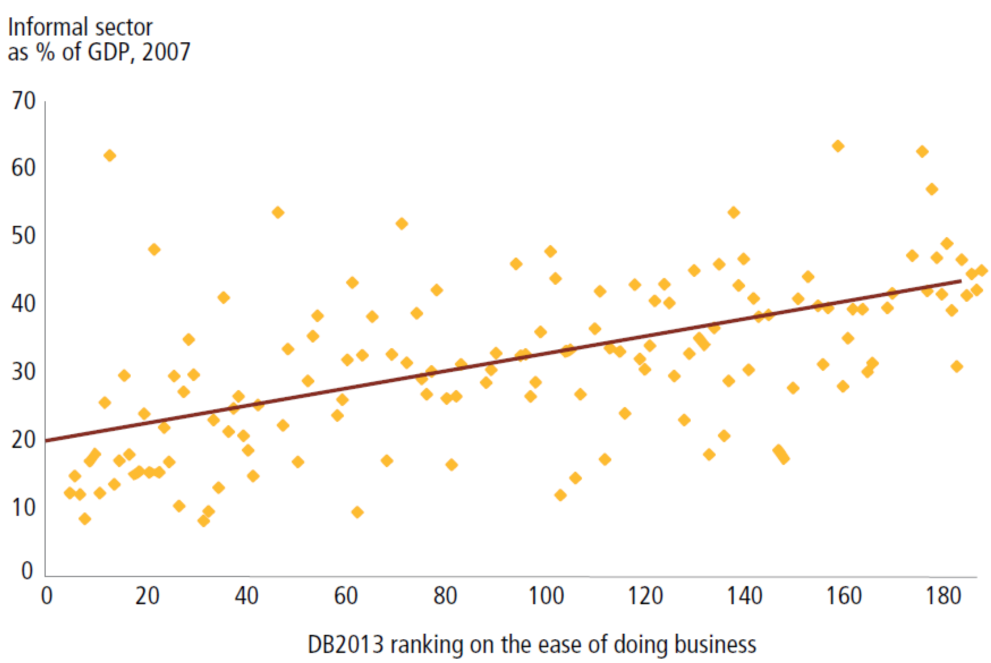
1. What is the overarching objective/mission/vision/scope of the *Doing Business* Report?

The research team that wrote the first *Doing Business* report sought to draw the attention of policymakers to the importance of business regulation and the institutions that enforce them. In the preface of the *Doing Business 2004* report the authors wrote:

> *"Although macro policies are unquestionably important, there is a growing consensus that the quality of business regulation and the institutions that enforce it are a major determinant of prosperity. ….. But little research has measured specific aspects of regulation and analyzed their impact on economic outcomes such as productivity, investment, informality, corruption, unemployment, and poverty. The lack of systematic knowledge prevents policymakers from assessing how good legal and regulatory systems are and determining what to reform."*

The team chose to focus in particular on the regulations and institutions affecting small and medium-size domestic formal firms. In most economies, small and medium-size companies make up a large part of the private sector and the private sector provides an estimated 90% of jobs in developing economies.[1] The team also sought insights on why some small firms choose to formalize while others stay in the informal sector (Figure 1).

Figure 1: Higher levels of informality are associated with lower *Doing Business* rankings



[1] World Bank 2005b; Stampini and others 2011.

Note: Greater numbers on the x-axis are associated with more restrictive business regulatory regimes for small and medium-size local firms. The correlation between the 2 variables is 0.57. Relationships are significant at the 5% level after controlling for income per capita. The data sample includes 143 economies.
Source: Doing Business database; Schneider, Buehn and Montenegro 2010.

The *Doing Business* project—of which the Report is a tool—aims to promote the World Bank Group's private sector development agenda. It does so in a variety of ways. First, it seeks to motivate reforms through country benchmarking. International benchmarking has proved to be a powerful tool for mobilizing society to demand improved public services, enhanced political accountability, and to guide policymakers in the formulation and implementation of better economic policies. Indeed, there has been a healthy shift in the last couple of decades in the locus of policy, away from abstract debates on the merits of particular ideologies to evidence-based approaches that tap into relevant databases of macroeconomic, social and other indicators that capture some objective measure of performance across a range of dimensions. The *Doing Business* data provide reformers with comparisons on a critically important area: the regulatory environment for business.

Second, *Doing Business* has sought to inform the design of reforms. The data compiled in *Doing Business* highlights bottlenecks and rigidities, it suggests specifically what needs to be changed when reforms are designed, because the indicators are backed by an extensive description of existing regulations. Furthermore, reformers can also benefit from reviewing the experience of countries that have adopted more efficient business practices that perform well with respect to the indicators.

Third, *Doing Business* has also contributed to enrich the debate on development effectiveness. There is sound empirical evidence that aid is more effective in better institutional environments and this has prompted donors to move more proactively toward more extensive monitoring of aid effectiveness and performance-based funding. For this approach to work well, however, it is important to have access to good-quality data tracking indicators that can be influenced directly by policy reform; this is exactly what *Doing Business* indicators provide.

Finally, by producing new indicators that quantify various aspects of regulation, *Doing Business* facilitates tests of existing theories and contributes to the empirical foundation for new theoretical work on the relation between regulation and development. In this way *Doing Business* is contributing to expand our knowledge of what works and what does not and sheds light on the types of interventions that are likely to be more helpful as we confront the challenges of economic development.

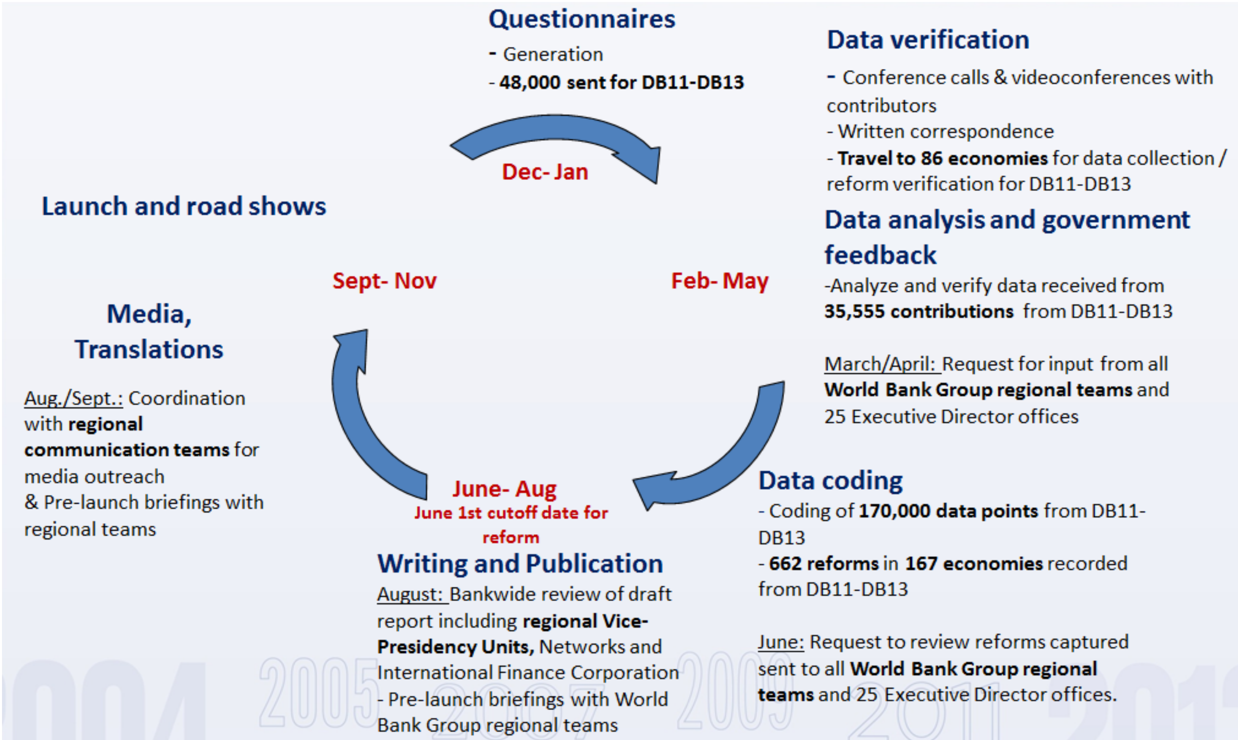
There is another factor that has played a central role in sustaining the interest of policymakers on the sorts of data delivered by *Doing Business* over the years. Implementing coherent economic policies in the context of a rapidly changing global economy and an uncertain economic outlook is a major challenge. For the great majority of policymakers, but particularly those in the developing world, many of the factors that influence the environment in which such policies are formulated lie well outside their control. Exporters of primary commodities may face erosions in the terms of trade which will require painful adjustments, both on budgets and the balance of payments. The volatility of international capital movements has created its own set of policy challenges, ranging from upward pressures on exchange rates that have undermined competitiveness to, in some cases, balance of payments crises when inflows have dried up, often in response to exogenous shocks, as happened, for instance, during the 2008-09 global financial crisis. However, the rules and regulations which governments choose to put in place to underpin the activities of the private sector are largely home-made. Whether the rules are sensible or excessively burdensome, whether they create perverse incentives or help establish a level-playing field that will safeguard transparency and encourage adequate levels of competition is largely within the control of governments. As governments over the past decade have increasingly understood the importance of business regulation as a driving force of competitiveness, they have turned to *Doing Business* as a repository of actionable, objective data, providing unique insights into best practices worldwide.

2. What mechanisms does *Doing Business* use to validate the data? How is the data collected and updated? What sources of data are used?

The full data collection cycle is laid out in Figure 2. In addition, several distinct features of the *Doing Business* data collection methodologies are worth highlighting:

1) The annual data collection exercise is an update of the database. The *Doing Business* team and the contributors examine the extent to which changes have taken place in the regulatory framework that are relevant for the features captured in the indicators. The data collection process must therefore be seen as *adding* each year to an existing stock of knowledge reflected in the previous year's report, not creating an entirely new data set from scratch. To take an example: there were an average of 13 countries in *DB 2012* and *DB 2013* where there were changes to the legislation affecting the scores embedded in the Protecting Investors indicator. In all other countries the Protecting Investors data remained unchanged. This, in turn, has a bearing on the desirable/optimal number of contributors, as discussed below.

Figure 2. ***Doing Business*** **data collection and publication cycle**
(With statistics for the last 3 reports)



2) *Doing Business* data is not based on firm or household surveys but on expert assessments. The *Doing Business* experts routinely administer the regulations and cases in question and therefore capture in their responses their cumulative experience. A notary or corporate lawyer might register over 100 firms every year depending on the economy, and can answer questions about that process giving their most recent experiences. By contrast a single firm will only go through the registration process once, likely many years previously.

3) The majority of data points feeding into the different *Doing Business* indicators are fact-based and can be corroborated by the lawyers and economists on the *Doing Business* team by analyzing the relevant laws and regulations. A full 72 percent of the data embedded into the *Doing Business* indicators is based on a reading of the law, for which, in principle—provided issues of language can be appropriately dealt with—the role of the contributors is largely advisory and there are quickly diminishing returns to an expansion in their number. For the remaining 28 percent of the data, extensive consultation with multiple contributors is conducted to minimize measurement error.

A key validation mechanism for the *Doing Business* data is its diverse and indicator-specific expert base. Close to 10,000 private professionals with experience dealing on a daily basis with the regulatory requirements captured by the *Doing Business* indicators responded to the questionnaire for *Doing Business 2013*. For example, corporate lawyers respond on issues that inform the Starting a Business indicator; property lawyers to the one for the Registering Property indicator; and freight forwarders do the same with the Trading across Borders questionnaire. As noted above the majority of the data *Doing Business* gathers is factual information based on a reading of the laws and regulatory provisions. The remaining 28% of the data refer to expert estimates, mainly of time to complete standard transactions. The selected professionals routinely implement the regulations and deal with cases similar to those underpinning the *Doing Business* indicators.

Further, the *Doing Business* unit has a team of 35 experts on the topics measured by the report (economists and lawyers familiar with different legal systems and specialized in different legal areas, such as, corporate law, insolvency law and labor law) who analyze the information provided by the contributors on the ground and cross-check the responses against the relevant laws and regulations. For example, the *Doing Business* team will examine the Commercial Code to confirm the minimum paid-in capital requirement in Greece, look at the Banking Law to see if borrowers have the right to access their data on the credit bureau in Ghana, and read the Tax Code to find applicable tax rates in Guatemala.

The questionnaire is the first point of contact with the local experts. After receiving the questionnaires, the *Doing Business* team follows up by phone or email with the local experts to conduct additional research and reconcile possible differences in responses. In addition, the team conducts annual in-depth data-assessment missions in a number of countries—close to 30 countries per year and over 100 country visits during the last five years. Finally, extensive efforts are exerted every year to expand and retain contributors across indicators and economies.

Moreover, the team shares the preliminary findings of the report in June with the governments through the Executive Directors at the Board of the World Bank Group. Through this process, the authorities of 185 economies can, for instance, alert the team about the implementation of reforms possibly not picked up by the contributors and the *Doing Business* team or point out additional achievements of reforms already captured in the database. Based on this feedback the team turns to the local private sector experts on the ground for further consultation and, as needed, corroboration. In addition, the team responds formally to the government's comments and provides explanations on the coding decisions. Over the past three years the team has submitted formal, detailed, responses to governments on well over 100 occasions. The *Doing Business* team also organizes videoconferences at the request of governments to explain the methodology and receive reform updates. (During the past three years the team has organized close to 70 videoconferences with client governments).

Finally, the team engages extensively with the different World Bank teams working on investment climate reforms globally in dozens of countries. These teams also provide data inputs and reform updates to the *Doing Business* team.

3. Why does *Doing Business* sample experts rather than firms?

Doing Business does not sample 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.

The same department that publishes the *Doing Business* report also collects and publishes data from Enterprise Surveys (http://www.enterprisesurveys.org). These surveys capture important data on a broad range of measures such as access to finance, infrastructure, innovation and technology, gender, productivity, levels of employment and on the constraints experienced by industries and firms of different sizes. Firm surveys are an important knowledge base for policymakers to understand *what constraints firms around the world are facing*. For this reason, data from enterprise surveys has also informed the choice of indicators included in the *Doing Business* report. But firm surveys do not necessarily provide policymakers with clear indications of *the legal and regulatory source of those constraints*.

Therefore, the *Doing Business* methodology deliberately differs from that of enterprise or firm surveys, aiming to complement them rather than replicate them. The *Doing Business* data complements firm surveys by providing information on particular regulatory practices affecting firms. On the basis of a careful review of the extensive set of laws and regulations affecting the operations of firms and tapping into the knowledge of experts engaged in the interpretation and implementation of these rules in 185 economies, *Doing Business* puts together a unique dataset of business regulations and practices that allows governments to assess features of their regulatory environment and compare them to those prevailing elsewhere in the world. This approach has several important advantages:

1) *Doing Business* measures aspects of the business environment that firm surveys cannot measure. For instance, *Doing Business* measures what type of information credit bureaus collect, or what type of assets can be used as immovable collateral according to the law.
2) The *Doing Business* data is “actionable” because it provides detailed information on different regulatory practices around the world allowing policymakers in different countries to learn from each other.

3) Collecting the *Doing Business* data for 185 economies is not as costly as administering firm surveys for the same number of countries.
4) The data is very transparent because most data points, as noted earlier on, that go into the indicator set can be confirmed by a law or other legal provision and therefore be challenged by those using the data.

4. Does *Doing Business* ever correct the data and if so, how are the changes noted?

Doing Business data are updated on an annual basis. During this process, if errors are found, the team conducts an extensive data verification process. For example, the team might have missed to record the revision of a fee schedule in one year and contributors might bring this to the team's attention the following year. The team would then correct the data for the current and the previous year. Another correction could arise as the team travels to the country and finds out that two procedures previously recorded sequentially can actually take place simultaneously. While this would not reduce the number of procedures counted, it would impact the total time estimate. Information on data corrections, including annual correction rates, is provided in the data notes and on the website. In addition, data time series for each indicator and economy are available on the website, beginning with the first year the indicator or economy was included in the report. Stakeholders who wish to challenge the data can do so online. The website also makes available all original data sets used for the background papers which gave rise to individual indicators.

5. How many experts contribute to the *Doing Business* report?

In response to recommendations by the World Bank's Independent Evaluation Group (IEG), the *Doing Business* team has made significant efforts to increase the number of contributors over the last several years. Their number has more than quadrupled from 2,235 in *Doing Business 2005* to 9,661 in the most recent *Doing Business 2013* report who provided 12,133 contributions (Table 1). The number of contributions exceeds the number of experts because some experts have the expertise to provide responses on several *Doing Business* topics. For example, lawyers specialized in corporate law can often answer the questionnaires for both the Starting a Business and the Protecting Investors indicators.

Table 1. Number of contributions by topic in DB 2013

Indicator set	Number of contributions
Starting a business	1,585
Dealing with construction permits	852
Getting electricity	830
Registering property	1,069
Getting credit	1,325
Protecting investors	1,083
Paying taxes	1,173
Trading across borders	933
Enforcing contracts	1,146
Resolving insolvency	1,085
Employing workers	1,052
Total number of contributions	**12,133**

The local experts that support the *Doing Business* project year after year do so on a *pro-bono* basis. 77% of *Doing Business* experts last year have contributed to previous editions of the report. Over half (57%) have contributed to three or more editions. In establishing the appropriate number of contributors, it is important to keep in mind some of the distinct features of the *Doing Business* methodology highlighted above. In particular, it is important to keep in mind the fact that the annual data collection process involves an update of the database, an addition to the stock of knowledge embedded in the indicators published in the previous year's report, and not the compilation of an entirely new database from scratch. Further, it is important to keep in mind that the majority of data points entering the different *Doing Business* indicators are fact-based and can be corroborated by the lawyers and economists on the *Doing Business* team. For example, the *Doing Business* team will examine the Commercial Code to understand aspects of minority shareholder protection in Cape Verde, or will look at the Bankruptcy Law to see the different proceedings available for firms and creditors in the case of insolvency in Thailand.

For all of the above reasons, sampling concerns are not as applicable to the *Doing Business* data as they would be for firm or household surveys.

6. Does *Doing Business* have missing data points and how are those dealt with?

The *Doing Business* data set has no missing data points, and therefore the team does not deploy any econometric techniques to estimate missing values. The data set only includes countries for which experts are available to deliver information on the particular business regulatory area measured and data can, hence, be reliably obtained. However, there are a few cases where the data for a particular country is set at “no practice.” This is not for lack of data, but rather reflects a situation in which the regulatory area is not being practiced in the measured economy. For example, in the case of “Dealing with Construction Permits” in Eritrea, “no practice” denotes the fact that the local experts (construction lawyers and architects) report that construction permits are currently not being issued by the building department in Asmara, the capital of Eritrea, which is used as the city of reference for the *Doing Business* indicators. In such a case, the country receives the lowest score on the relevant indicator.

7. To what extent does *Doing Business* tap into other data sources, beyond its own data collection processes?

All 31 sub-components[2] of the 10 *Doing Business* indicators included in the Ease of Doing Business Index are based on primary data collection, meaning the data is collected by the team through a reading of the law and consultations with local experts. *Doing Business* does not tap into secondary data sources, as do many other composite indexes. However, there are seven out of the 31 sub-components which are scaled by a country’s income. The following cost estimates (collected by the *Doing Business* team) are expressed as a percentage of the income per capita in the respective economy to illustrate how much of a burden the absolute cost represents for an average person in each country:

- the cost to start a business
- the minimum capital requirement
- the cost to obtain a construction permit
- the cost to obtain an electricity connection
- the cost to transfer a property title (measured as percentage of property value which in turn is a multiple of income per capita)
- the total tax rate (measured as percentage of commercial profits which in turn are a multiple of income per capita)
- the cost to enforce contracts (measured as percentage of claim value which in turn is a multiple of income per capita)

For the income variable, the team uses income per capita estimates as published in the World Bank’s annual publication, *World Development Indicators*. Income is calculated using the Atlas method (in current US$). Where GNI per capita estimates are not available through *World Development Indicators*, GDP or GNP per capita estimates from the International Monetary Fund’s *World Economic Outlook* database are used. In a few cases, the Economist Intelligence Unit may also be used.

[2] As will be noted later on (see answer 9) the distance to frontier measure includes only 28 sub-components (instead of 31) because the sub-components for the Getting Electricity indicator are not included.

8. How is the data aggregated? Are there any weights in the aggregation? How are the sub-components weighted?

The figure below illustrates how the raw data for each indicator for Australia is converted into an indicator-specific percentile rank and how the 10 indicator ranks in turn are aggregated to derive the *Doing Business* Index. As can be seen, the aggregate ranking for all 185 economies is calculated as the simple average of individual percentile rankings on each of the 10 topics included in the project. Within each topic all sub-indicators are also weighted equally.

Figure 3. Computation for the Ease of Doing Business ranking
(Example from DB13)

Aggregation and Ranking Under the Current Methodology

Summarize data per sub-indicator → Calculate average percentile per indicator → Order all economies by average percentile

Example: Australia in DB13

Starting a business
Procedures: 2
Time: 2 days
Cost: 0.7% of GNI pc
Min cap requirement:0

Dealing with construction permits
Procedures: 11
Time: 112 days
Cost: 13.4% of GNI pc

Registering property
Procedures: 5
Time: 5 days
Cost: 5.1% of property value

Indicator	Simple average of percentile ranks	Australia's ranking
Ease of starting a business	0.02	2nd
Ease of dealing with construction permits	0.17	11th
Ease of getting electricity	0.25	36th
Ease of registering property	0.27	37th
Ease of getting credit	0.06	4th
Ease of protecting investors	0.44	70th
Ease of paying taxes	0.36	48th
Ease of trading across borders	0.28	44th
Ease of enforcing contracts	0.17	15th
Ease of resolving insolvency	0.09	18th
Simple average of 10 indicators	0.210	

Economy	Ease of DB	Final rank
Singapore	0.082	1st
Hong Kong SAR, China	0.091	2nd
New Zealand	0.108	3rd
United States	0.159	4th
Denmark	0.163	5th
Norway	0.183	6th
United Kingdom	0.189	7th
Korea, Rep.	0.192	8th
Georgia	0.195	9th
Australia	0.210	10th

The *Doing Business* Index is not the only index that uses a simple average. For example, the UNDP's Human Development Index uses the same method. When the rankings were first created and aggregation became necessary, the team at the time considered various other weighting options. Three methods for identifying alternative weights were explored:

1. **Principal components analysis to avoid double counting.** This method asks the question: which scores depend on the same underlying factor. Principal component analysis is a variable reduction procedure. It is useful when there is reason to believe that

there might be some redundancy in the variables included in an index. In this case, redundancy means that some of the variables are correlated with one another, possibly because they are measuring the same construct. For example, the time that it takes to register property or a company might be correlated if the same agency handles part of the process for both transactions.

2. **Unobserved components analysis weeds out outlier scores.** Simply put, a researcher using this method asks the question: which scores do not fit the overall pattern. For example, the Robert Parker wine ratings are a weighted average of wine scores in four categories: color and appearance, aroma and bouquet, flavor and finish, overall quality, and potential for further improvement. The fourth criterion correlates the least with the other criteria across restaurants and hence carries less weight in the aggregate rating. Applied to the *Doing Business* indicators, this would mean that each indicator is interpreted as capturing a limited dimension of the business regulatory environment. This methodology provides a distribution of likely values for the unobserved part of the "business regulatory environment" by estimating the variance of the disturbance term for each indicator and its correlation across indicators. It can be interpreted as a measure of how informative each indicator is about the broader concept of "business environment" or "business regulation." The component identified by the unobserved components analysis is identical to the first principal component identified by the principal components analysis.
3. **Another option for weighting could be to more explicitly link, through regression analysis, the *Doing Business* indicators to particular *economic outcomes.*** Reforms in the business environment are done in the belief that they would increase incomes, reduce informality and decrease unemployment, for instance. Regression analysis assigns the relative importance of each set of *Doing Business* indicators to each of these outcomes (see Table 2). However, it is very difficult to specify a plausible empirical model, making this option highly impractical.

Table 2. Weights based on economic analysis of outcomes

How to weight? Economic analysis of outcomes

	Value added per worker	Size of informal sector	Unemployment
Ease of starting a business	11.8	10.9	9.4
Ease of dealing with licenses	10.8	11.8	8.0
Ease of hiring and firing	5.9	7.1	17.9
Ease of registering property	10.9	10.6	13.7
Ease of getting credit	10.6	8.9	8.6
Ease of protecting investors	4.4	5.1	0.0
Ease of paying taxes	8.7	12.0	13.1
Ease of trading	13.5	12.1	6.2
Ease of enforcing contracts	12.2	11.8	13.0
Ease of closing a business	11.3	9.7	10.1

Note: Weights reported are the regression coefficients in regressions of value added per worker, the size of the informal sector and employment on the "ease of" indicators. Higher weights indicate that the "ease of" indicators exhibit a stronger relationship with value added, the size of the informal sector or unemployment respectively.

Source: See *Doing Business Indicators: Why aggregate, and how to do it* at http://www.doingbusiness.org/~/media/GIAWB/Doing%20Business/Documents/Methodology/Other/why-aggregate-doing-business-2006.pdf.

Statistical methods such as principal components and unobserved components analysis are often used to inform the weighting in the absence of a theoretical model. The team considered both of these statistical alternatives and found a 99.7% and 98.2% correlation with a simple average. The weighting based on analyses of economic outcomes suggested different weights depending on the dependent variable chosen and was therefore not conclusive, either. The team chose the simple average because of its simplicity, transparency, and ease of comprehension.

The different options pursued are discussed in more detail in the note "How to aggregate" which can be found under the following link on the website of the *Doing Business* project (http://www.doingbusiness.org/~/media/GIAWB/Doing%20Business/Documents/Methodology/Other/why-aggregate-doing-business-2006.pdf).

9. What is the frontier and how is the distance to the frontier measured?

History and purpose of the "Distance to the Frontier"

The concept of a "Distance to the Frontier" measure was first introduced in the *Doing Business 2011* report (at the time the measure was called "*DB Change Score*"). The methodology was subsequently revised and the "Distance to the Frontier" has been published in its current format since *Doing Business 2012*.

The *Doing Business* team developed the new measure in collaboration with the World Bank's Research Department (DEC), in response to comments from stakeholders who felt that the *Doing Business* overall ranking did not give a clear enough picture of the absolute improvements that some countries had made over time in the areas measured by *Doing Business* because the Ease of

Doing Business ranking measured the regulatory performance of economies only relative to the performance of others.

The overall ranking provides an annual picture of the relative competitiveness of a country in business regulatory matters. However, based on the relative ranking alone, it is hard to tell, for instance, how far apart the performance of the No. 5 and No. 6 ranked countries is from each other. In short, the relative ranking provides no information on the absolute quality of the regulatory environment of each of the 185 countries in the ranking. As a consequence of this it is also difficult to discern by how much an individual country has improved over time. This feature of the relative ranking is particularly limiting for countries that have reformed their business regulatory environment significantly over time, but whose progress has been outpaced by that of other countries.

The distance to frontier measure was therefore designed to complement the Ease of Doing Business ranking by addressing both shortcomings.

How is "Distance to the Frontier" constructed

A first step in the construction of the "Distance to the Frontier" metric is to define the concept of business regulatory "Frontier." The "Frontier" is an aggregate score derived from the most efficient practices or highest scores achieved on the 28 *Doing Business* sub-component indicators by any economy since 2005, excluding the sub-components of the Employing Workers and Getting Electricity indicators.[3] (See Table 3 for an illustration for several of the indicators.)

Table 3. What is the frontier in regulatory practice?

Topic and indicator	Frontier
Starting a business	
Procedures (number)	1
Time (days)	1
Cost (% of income per capita)	0
Minimum capital (% of income per capita)	0
Registering property	
Procedures (number)	1
Time (days)	1
Cost (% of property value)	0
Protecting investors	

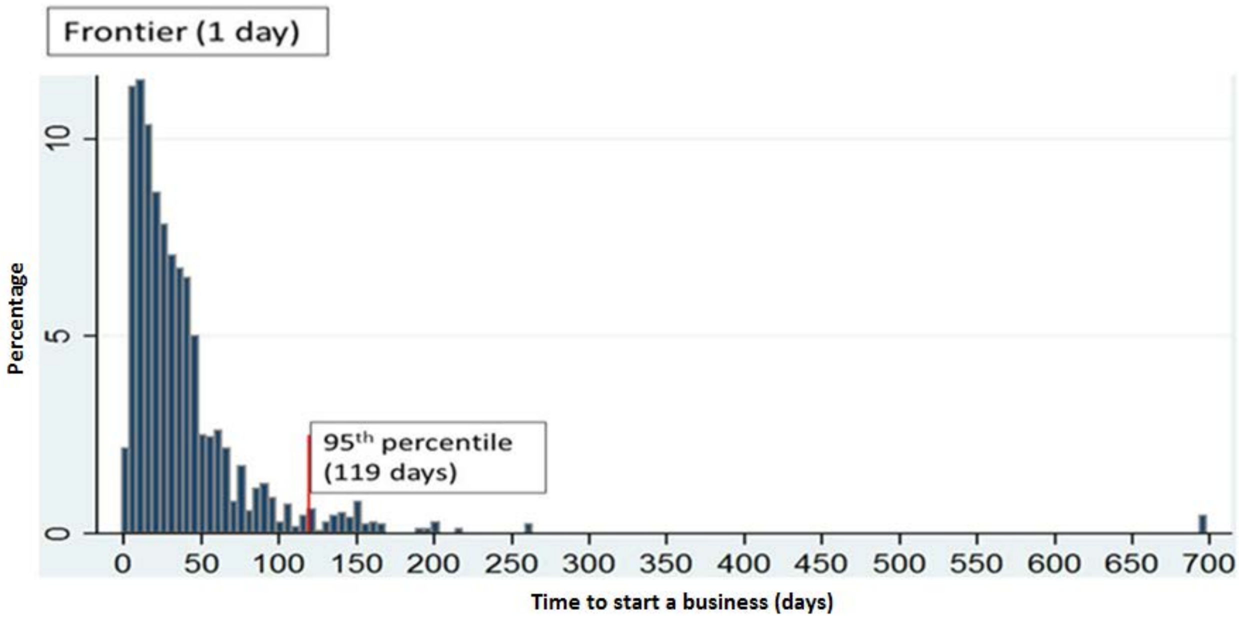
[3] These two indicators are not included because they have not consistently been part of the Ease of Doing Business ranking since 2005. The Employing Workers indicator was removed from the Ease of Doing Business ranking the year after the *Doing Business 2010* report and the Getting Electricity Indicator has only been part of the Ease of Doing Business ranking since 2011.

Extent of disclosure index (0–10)	10
Extent of director liability index (0–10)	9
Ease of shareholder suits index (0–10)	10
Trading across borders	
Documents to export (number)	2
Time to export (days)	5
Cost to export (US$ per container)	390
Documents to import (number)	2
Time to import (days)	4
Cost to import (US$ per container)	317
Enforcing contracts	
Procedures (number)	21
Time (days)	120
Cost (% of claim)	0.1

Source: Doing Business database.

As an example, consider the time it takes to start a business. It takes one day to register a company in New Zealand, the shortest period in a sample of 185 countries. Therefore, one day to register a company represents the "Frontier" for the time to start a business. At the other extreme, it takes 694 days to start a business in Suriname, the longest time in the sample. Suriname's "distance to the frontier" on the time to start a business would therefore be the longest. The figure below shows the time to start a business for all economies since *Doing Business 2006.* As the figure indicates, time is unevenly distributed across the world. For instance, as of the *Doing Business 2013* report there were 120 countries (roughly two-thirds of the entire sample) where a business can be started in 25 days or less. Thus, Suriname's time to start a business represents a significant outlier in the distribution across countries (see Figure 4). The next longest time on this measure is the Republic of Congo with 161 days. To mitigate the effects of extreme outliers in the distribution of the data, a 100% "Distance to the Frontier" was therefore defined as the 95th percentile of the pooled data for all economies and all years for each indicator.

Figure 4. Distribution of the starting a business time since 2005



This means that not only Suriname and the Republic of Congo, but also a few other countries would receive the lowest score on the "Distance to the Frontier" metric. For all other countries in the distribution, the "Distance to the Frontier" is calculated by expressing each economy's score as a percentage of the distance between the best and worst performance in the sample since 2005. The year 2005 was chosen as the baseline for the sample because it was the first year in which data were available for the majority of economies (a total of 174) and for all indicator sets included in the measure.[4]

For each economy the annual "Distance to the Frontier" scores on each sub-component indicator are then aggregated through simple averaging into one distance to frontier score.

An economy's final "Distance to the Frontier" score in a given year is indicated on a scale from 0 to 100, where better performers have higher scores and are placed on the left-hand side of the graph below, indicating greater proximity to the frontier, which is represented by a horizontal line placed at 100. In any given year, the score measures how far an economy is from the highest aggregate performance observed since 2005.

[4] The individual indicator score for Country X is rescaled as follows: *(Worst Performance since 2005 – Country X performance in year X)/(Worst Performance since 2005– Frontier Performance since 2005).*

Figure 5. Almost all economies are closer to the frontier in regulatory practice today than they were in 2005

Note: The distance to frontier measure shows how far on average an economy is from the best performance achieved by any economy on each *Doing Business* indicators since 2005. The measure is normalized to range between 0 and 100, with 100 representing the best performance (the frontier). The data refer to the 174 economies included in *Doing Business 2006* (2005). Eleven economies were added in subsequent years.
Source: Doing Business database.

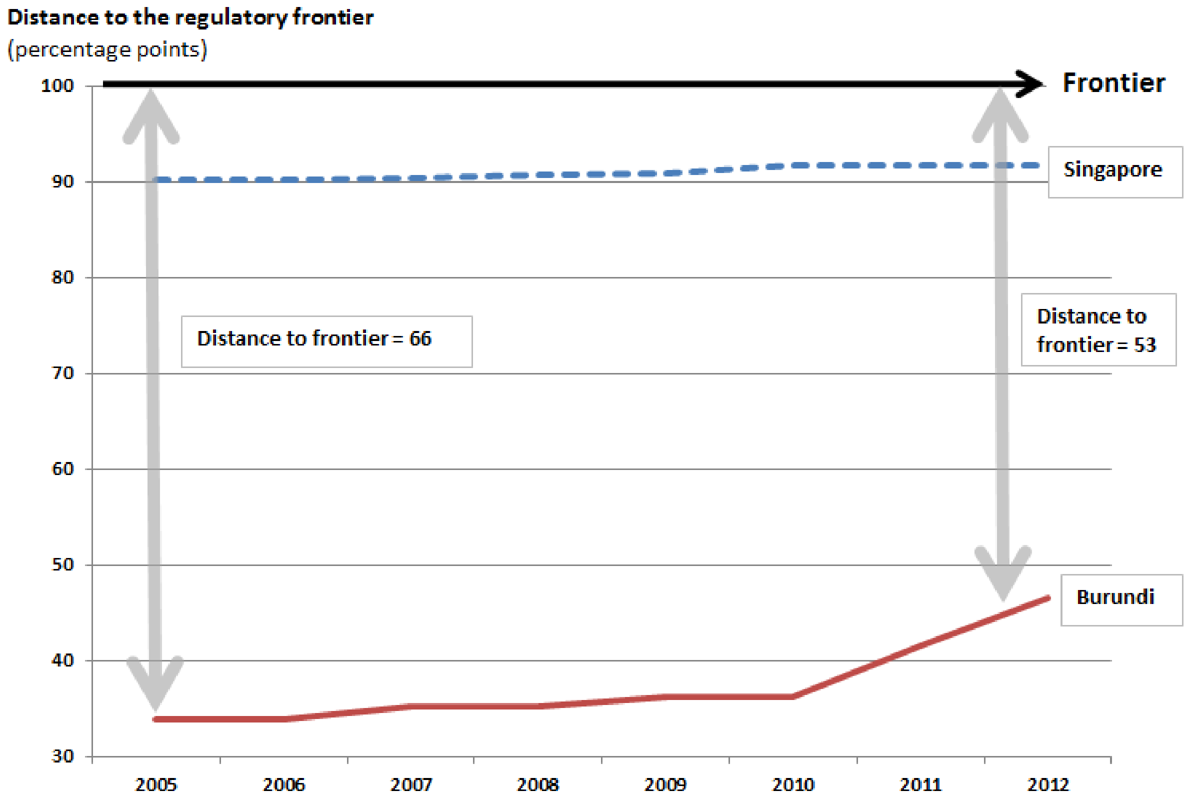
Finally, the difference between an economy's "Distance to the Frontier" score in 2005 and its score in 2012 illustrates the extent to which the economy has closed the gap to the frontier over time (shown as vertical arrows in the graph above).

The full list of the data used to define the "Frontier" is presented in the *Doing Business 2013* report on page 133 where the methodology for computing the "Distance to Frontier" is also described.

Illustrative example

Take Burundi, a Sub-Saharan country that is ranked 159 out of 185 countries on the Ease of Doing Business. Compared to first-ranked Singapore, Burundi's business regulatory environment today is not very attractive. However, this disguises how much Burundi's regulatory environment has improved over the last seven years. The "Distance to Frontier" measure over time provides this missing information. In 2005, Burundi was 66 percentage points away from the regulatory frontier. By 2012 the distance had been reduced to 53 percentage points thanks to a number of reforms that the government implemented over time (Figure 6). This represents a 13 percentage point improvement of the regulatory environment as captured by the *Doing Business* indicators. By comparison, Singapore's regulatory environment has remained relatively stable over the same period.

Figure 6. Change in the distance to the frontier for Burundi



The distance to the frontier metric has been well received by stakeholders. Senior officials have welcomed the ability to assess performance with respect to a country's history, rather than only in relation to other countries' performance. For the *Doing Business* team, it has enabled the delivery of a more nuanced set of messages at the time of the publication of the report, increasingly emphasizing improvements being made by country authorities over time, which have often been substantial, even in cases where the overall rank remains relatively low. To the extent that the media has picked up this dimension of the *Doing Business* data, the content and the tone of the stories have been much more positive. The *Doing Business 2013* report has made heavy use of this new metric in analyzing trends and reporting on results. It has also published a new table with a list of the 50 countries that have narrowed the distance to the frontier the most since 2005, in which, for instance, China occupies 12th place (see Table 4). In reporting on the results, the Chinese media focused on this aspect of the report rather than the overall rankings.

Table 4. The 50 economies narrowing the distance to the frontier the most since 2005

Rank	Economy	Region	Improvement (percentage points)	Rank	Economy	Region	Improvement (percentage points)
1	Georgia	ECA	31.6	26	Saudi Arabia	MENA	10.7
2	Rwanda	SSA	26.5	27	India	SAS	10.6
3	Belarus	ECA	23.5	28	Guatemala	LAC	10.4
4	Burkina Faso	SSA	18.5	29	Madagascar	SSA	10.3
5	Macedonia, FYR	ECA	17.4	30	Morocco	MENA	10.1
6	Egypt, Arab Rep.	MENA	16.3	31	Yemen, Rep.	MENA	10.1
7	Mali	SSA	15.8	32	Peru	LAC	10.1
8	Colombia	LAC	15.3	33	Mozambique	SSA	10.0
9	Tajikistan	ECA	15.2	34	Czech Republic	OECD	9.8
10	Kyrgyz Republic	ECA	14.8	35	Timor-Leste	EAP	9.7
11	Sierra Leone	SSA	14.7	36	Côte d'Ivoire	SSA	9.5
12	China	EAP	14.3	37	Togo	SSA	9.5
13	Azerbaijan	ECA	12.9	38	Slovenia	OECD	9.5
14	Croatia	ECA	12.8	39	Mexico	LAC	9.4
15	Ghana	SSA	12.7	40	Niger	SSA	9.4
16	Burundi	SSA	12.6	41	Nigeria	SSA	9.0
17	Poland	OECD	12.3	42	Portugal	OECD	9.0
18	Guinea-Bissau	SSA	12.2	43	Solomon Islands	EAP	8.9
19	Armenia	ECA	12.2	44	Uruguay	LAC	8.8
20	Ukraine	ECA	12.0	45	Dominican Republic	LAC	8.8
21	Kazakhstan	ECA	11.9	46	Taiwan, China	EAP	8.8
22	Senegal	SSA	11.5	47	São Tomé and Príncipe	SSA	8.7
23	Cambodia	EAP	11.1	48	France	OECD	8.6
24	Angola	SSA	11.0	49	Bosnia and Herzegovina	ECA	8.4
25	Mauritius	SSA	10.9	50	Albania	ECA	8.3

Note: Rankings are based on the absolute difference for each economy between its distance to frontier in 2005 and that in 2012. The data refer to the 174 economies included in *Doing Business 2006* (2005). Eleven economies were added in subsequent years. The distance to frontier measure shows how far on average an economy is from the best performance achieved by any economy on each *Doing Business* indicators since 2005. The measure is normalized to range between 0 and 100, with 100 representing the best performance (the frontier). EAP = East Asia and the Pacific; ECA = Eastern Europe and Central Asia; LAC = Latin America and the Caribbean; MENA = Middle East and North Africa; OECD = OECD high income; SAS = South Asia; SSA = Sub-Saharan Africa.
Source: Doing Business database.

10. Has the *Doing Business* report team considered the option of clustering countries by, for example, region or income groups?

The *Doing Business* team has given careful thought to the idea of clustering countries, in particular along the income group dimension. There are a few arguments in favor of presenting rankings by income clusters, the strongest being that countries of different income levels can be very diverse and perhaps not very comparable. For instance, Zimbabwe or Venezuela may not be comparable to Sweden, especially if a country's stage of development is an important determinant of what is feasible in terms of the policy environment.

Nevertheless the *Doing Business* team is of the view that the arguments against presenting rankings by income clusters are stronger, namely:

- The data shows that *high rankings are not the sole prerogative of high-income countries*. A relatively large number of middle-income countries are among the top 40 economies in the Ease of Doing Business ranking. This suggests that income per capita is not a determinant for the willingness and ability of countries to implement credible business regulation reforms.

- *Good practices are found across all topics and countries regardless of their level of income.* For instance, Georgia and Rwanda are among the top 10 in the ease of starting a business.

- *Clustering countries may defeat the notion of comparability*, which is at the core of the *Doing Business* exercise**.** Countries are taking the rankings seriously because they are not treated differently. The fact that richer countries are not always ranked higher is an important finding, and it enriches the debate. To divide countries into income clusters would undermine a key message of *Doing Business* during the past decade: namely, that improvements to the regulatory environment, along with reductions in bureaucracy and red tape, are within the reach of all countries, regardless of the stage of development. To now suggest that low-income countries, for instance, can compete only with each other in a "poor countries club" would seriously contradict one of the central messages of *Doing Business*. Clustering can be left to the users.

- A new presentation of the rankings would naturally lead to a *loss of continuity with past rankings*. Regulatory reform committees have been formed in more than 25 economies around the world which are now using the *Doing Business* indicators and global rankings as one input and reference point for their programs. Many economies look for inspiration from other countries across income groups. Rwanda ranks 1st among low-income economies but 52nd globally. Rwanda is benchmarking its regulatory environment to countries such as Singapore, not other low-income economies. The Chilean government considers the relevant benchmark for comparison for *Doing Business* and competitiveness indicators to be Finland, New Zealand and Ireland, not other countries in Latin America.

- The World Economic Forum has introduced a *"stages of development"* concept in its global competitiveness rankings. But that concept is not used to produce separate country rankings for various income groups: It is used to weigh the various factors differently. Once this is done, the WEF still produces a single set of rankings for all countries. In any case, a "stages of development" approach to rankings can more easily be defended when looking at competitiveness—a much broader concept, capturing a large range of institutional factors—than is the case with *Doing Business*, with its much narrower focus on business regulation.

- Finally, the *Doing Business* data is easily available and data users can compute alternative rankings by income group or region or any other groupings.

11. Has *Doing Business* considered alternative approaches to its aggregate ranking?

Doing Business has considered alternative approaches to ranking. World Bank Group management decided to start ranking countries on the Ease of Doing Business in 2005 (*Doing Business 2006* Report) because it recognized the value of benchmarking exercises in generating the interest of policymakers in reform. In an area which had received little attention by policymakers before the publication of the first *Doing Business* report, the ranking proved to be an important catalyst for raising the profile of regulation as a central element of a good investment climate. The rankings also proved effective in moving issues of country performance and progress in business regulation to the center of policy discussions in a large number of countries. By capturing complex, multidimensional realities into a simple quantified framework the rankings also helped to facilitate communication between different stakeholders and made possible meaningful international comparisons in country performance, contributing, along the way, to also raise the accountability of political actors.

Members of the business community, for instance, could point to the existence of less complex and costly procedures or better working institutions in other countries in the region in their dealings with governments which, by and large, had been slow to see their own *Doing Business* data in an international perspective. The overall ranking has value in addition to the topic level indicators. The topic level rankings provide useful guidance on best practices in one area of regulation (for instance, starting a business) but are less instructive as to which countries provide a strong overall climate for business. The overall ranking combines a wealth of information that serves as a summary measure and allows governments to benchmark their performance with other countries. For instance, countries like the Russian Federation set targets for improvement on the overall ranking--not on the individual topic rankings--taking it as a reasonable proxy for the overall quality of the business environment.

Notwithstanding the important benefits of rankings, the disaggregated data is also a clear strength of the project. Policymakers frequently become aware of the measurements through the ranking but then use the disaggregated data to shape reform programs. The data identify best practices globally and identify where each economy's practices hold inefficiencies or inadequate legal protections. For example, governments find it useful to compare their own procedures lists for firm start-up with those of other countries that pursue the same goals with less procedural complexity and at lower costs.

Last, *Doing Business* has worked over the last two years on broadening the focus of economies on the medium- to long-term by adding the "Distance to the Frontier" measure. While the Ease of Doing Business ranking provides for a very useful snapshot of a country's relative performance compared to other economies in the world, the "Distance to the Frontier" metric sheds more light on the progress made by individual countries over time with comparison to their own regulatory practices of previous years.

Doing Business recognizes three main limitations to the ranking approach:

1. By converting the data into ranks the cardinal information in the underlying data can be overlooked.
2. Rankings disguise potential "bunching" in the underlying data. For example, while the difference between No. 1 and 2 on the overall ranking might be miniscule in terms of performance, the difference between No. 150 and No. 151 might be substantial. These differences cannot be discerned from the ordinal ranking.
3. Comparing ranks over time only makes statements about changes in countries relative positions, but not necessarily about absolute improvements.

Significant efforts have been made in recent years to address these limitations. The first limitation is addressed by focusing the content of the report, publication materials and presentations on the more granular aspects of the data, highlighting the meaning and the content of the data rather than the position of an economy in the overall ranking. Recent reports have also included case studies that provided more in-depth analysis of the data for different countries and highlighted issues of prioritization, sequencing and key drivers of reforms. Country profiles for each economy included in *Doing Business* are also posted on the *Doing Business* website and contain the full set of data details for that economy. Topic chapters focused on individual indicators and the topic pages of the website also discuss best practices in detail.

All three limitations have been addressed by complementing the ordinal ranking with the "Distance to the Frontier" metric in the last two reports. The "Distance to the Frontier" measure assigns a score to the overall performance of a country compared to the global best practice and reveals clearly the difference in the performance between two countries. For example, with the help of the "Distance to the Frontier" metric it is possible to discern that there is much more of a difference in performance between the No. 17 Canada and No. 18 Thailand (difference of 9.4 percentage points) versus the No. 4 United States and No. 5 Denmark (difference of 0.4 percentage points). The "Distance to the Frontier" score also specifically helps address limitation 3, because it makes it possible to use the same methodology to compare changes over time and differences across countries in a single year.

In any case, recent *Doing Business* Reports have put increasingly more attention on long term trends in the data—with an emphasis on countries' performance with respect to their past—to balance the short-term perspective that the ranking provides. Last, *Doing Business* makes the disaggregated data available on its website. This allows users to construct alternative rankings with any set of weights they may wish to attach to individual indicators.

12. Does the *Doing Business* report promote less security of transactions?

The *Doing Business* report does not promote less legal security of commercial transactions. The fundamental premise of the report is that economic activity requires good rules. These include rules that establish and clarify property rights and reduce the cost of resolving disputes; that increase the predictability of economic interactions; and that provide contractual partners with core protections against abuse.

The top performing economies of the *Doing Business* report are led by developed economies, where government institutions have managed to create rules that are efficient in their implementation, and offer an important level of legal security without needlessly hindering the development of the private sector. For example, the starting a business ranking is led by New Zealand, Australia and Canada; the getting electricity ranking is led by Iceland, Germany and Korea; and the enforcing contracts ranking is led by Luxembourg and Korea. Many of these economies are providing technical assistance to developing economies to help them design efficient, transparent and secure systems to deal with commercial transactions. For example, Korea has been advising the governments of Indonesia and Thailand regarding judicial reform. New Zealand offers its business incorporation and record keeping software for free to any interested economy. Many economies from the Pacific Islands, including Tonga, are in the process of adopting this system.

Moreover, developing economies are learning from the reform experience of developed economies, and are implementing reforms that promote more security and improve the governance of government institutions. For example, Rwanda has implemented an efficient and secured company registration system using the Singaporean experience. Ten years ago the process was inefficient, and it was not possible to obtain any company record from the company registry in Kigali. Now, company records are publicly available, and are stored in secured and organized databases. Furthermore, Georgia, with the support of several donors (World Bank, USAID), has invested to introduce a state of the art land registration system. Thanks to the implementation of electronic platforms and the use of GPS technologies, all the properties located in Tbilisi are mapped to a modern land registration system. Companies and individuals can now obtain information on properties (ownership or encumbrances) within minutes and transfer property legally within 2 days.

Finally, fewer procedures and reduced fees do not translate into less security of commercial transactions. For example, in the area of property registration, several economies have implemented simplified procedures that provide as many protections as the traditional property registration systems. In Sweden, it takes one procedure and 30 days to transfer a property; in Malaysia it takes 5 procedures and 14 days; in Switzerland, it takes 4 procedures and 16 days, and in New Zealand, it takes 2 procedures and 2 days, while in France, it takes 8 procedures and 59 days. The economies with the most complex property transfer systems are Guinea-Bissau, Eritrea and Nigeria. Looking at the data across 185 economies it is clear that the Malaysian, Swiss, Swedish, or New Zealand systems provide a more efficient process at a substantially lower cost than the average for the entire sample. Furthermore, to the extent that such data exists, there is no evidence to suggest that transactions in countries like the Netherlands, Sweden, Switzerland, New Zealand, the United Kingdom, Singapore, Chile and Colombia provide for less security of transactions than in other more expensive and cumbersome jurisdictions.

13. How does the *Doing Business* methodology compare to other datasets such as the World Economic Forum's Global Competitiveness Index?

When comparing the *Doing Business* methodology to that of other datasets the following main differences stand out (see tables below):

- The *Doing Business* Index is one of the very few indexes based solely on primary data;

- The primary data included in the *Doing Business* Index is fact-based rather than perception-based, a departure from much of the data used in the WEF's *Global Competitiveness Index;*
- The *Doing Business* data and methodology is one of the most transparent datasets available in terms of making changes to the data and the methodology clear and public.

Table 5. Other datasets

	Age	**Perception-based components**	**Only primary data**
National accounts (GDP)	66		√
Living Standards and Measurement Study	33		√
International Country Risk Guide (ICRG)	29	√	
World Competitiveness Yearbook (IMD)	24	√	
Human Development Report	23		
Index of Economic Freedom (Heritage)	18	√	
Corruption Perception Index (TI)	18	√	√
Global Competitiveness Report (WEF)	17	√	
Economic Freedom of the World (Fraser)	16	√	
FDI Confidence Index (AT Kearney)	15	√	√
World Economic Outlook (WEO)	14		
Doing Business	10		√

Note: The World Economic Outlook has data available online for the past 14 years. The actual reports have been published since the late 1940s and are available online from 1993 onwards.

		Publicly available on the website?		
Dataset and coverage	*Data sources*	*Detailed explanations on methodology changes*	*Data changes by country and indicator*	*List of all sources/ contributors*
Doing Business (WB/IFC) **185 economies**	Primary data: laws and regulations, law-based questionnaires	√	√	√
Global Competitiveness Report (WEF) **144 economies**	Secondary data from int. org. + perception-based surveys of executives	√	N/A	Secondary sources only
World Competitiveness Index (IMD) **55 economies**	Secondary data from int. org. + perception-based surveys of	√	N/A	Secondary sources only

		Publicly available on the website?		
	executives			
Index of Economic Freedom (Heritage) **185 economies**	Secondary data from int. org., public and private sources	N/A	N/A	Secondary sources only
Economic Freedom of the World (Fraser) **141 economies**	Expert surveys and panels, data from int. org.	N/A	N/A	Secondary sources only

In comparing *Doing Business* and the World Economic Forum's (WEF) *Global Competitiveness Index* (GCI), in particular, the following differences stand out:

- The GCI contains a more comprehensive set of indicators that relate to the competitiveness of an economy (from macro-economic policies to educational attainment rates in a country). The focus of *Doing Business* is narrower; it measures only regulatory practices affecting small and medium sized local businesses.
- Much of the WEF's GCI is constructed mainly from secondary data. For example, the WEF uses macroeconomic data from the IMF's WEO, penetration rates for various technologies from the International Telecommunications Union, school enrollment rates and public health indicators from *World Development Indicators*, and other such sources, including *Doing Business*. The WEF also uses primary data collected from relatively small-sample opinion surveys from enterprise managers ("Executive Opinion Survey") for many of the components included in the index, accounting for 64% of the variables captured in the GCI. By contrast, the *Doing Business* data is entirely based on primary data collection.
- The questions that enterprise managers answer for the GCI's survey data are perceptions-based (a sample question would be: "Railroads in your country are (1 = underdeveloped, 7 = as extensive and efficient as the world's best), while the questions that experts answer for the *Doing Business* indicators are fact-based (a sample question would be: "How many legal procedures is an SME required to go through to be incorporated in your jurisdiction?").
- The choice of variables included in the *Doing Business* Index was motivated by theoretical insights drawn from a collection of peer-reviewed papers published in some of the world's leading economic journals, addressing aspects of the effects of business regulation on private sector activity, and complemented by evidence gathered from enterprise surveys on the type of obstacles they encounter during their business activity. The choice of variables included in the GCI was motivated by a reading of the empirical literature on the types of factors, policies, and institutions that have a bearing on productivity growth.
- The *Doing Business* Index is weighted by means of a simple average, an approach that was chosen after evaluating various different options. The weights in the GCI differ depending on a country's stage of development (as captured by its income per capita). Thus, for countries in the early stages of development, factors such as macroeconomic stability, the quality of

public institutions and basic health and primary education will be weighted more heavily. At the other end of the income scale, for countries with long traditions of macro-stability, well trained labor forces and good quality infrastructure, innovation factors and the levels of sophistication of the business community will be weighted more heavily.

- The GCI currently covers 144 countries, *Doing Business* covers 185 countries.
- Finally, the granularity of *Doing Business* indicators and the considerable amount of specific data that is embedded in them (e.g., the 42 procedures that need to be complied with, the time that it takes to fulfill each procedure and the cost associated with each, to get a construction permit in Moscow) are highly actionable and are being used by governments to frame specific business regulation reforms.

14. Are there components in the *Doing Business* indicators that are not "actionable" for governments?

Many of the *Doing Business* indicators can be considered "actionable." For example, a government has direct control over reducing a minimum capital requirement. It can also invest in company and property registries to increase the efficiency of these public agencies. Governments can also improve the efficiency of tax administration by making increasing use of the latest technologies to facilitate the preparation, filing, and paying of taxes by the business community. They can also invest resources in court reforms to shorten the delays associated with the enforcement of contracts. However, some of the procedures, time, and costs captured by indicators such as Starting a Business, Registering Property, Dealing with Construction Permits, Getting Electricity, Enforcing Contracts or Trading across Borders involve private sector participants, such as notaries, lawyers, electricians, architects, or trade forwarders. Governments may have less influence over the fees these professions charge in the short run, though much can be achieved by strengthening the licensing regimes for these professions and by preventing anti-competitive behaviors through antitrust measures.[5] Governments also have no control over the geographic location of their country, a factor which can negatively affect businesses. The Trading across Borders indicator assumes that trade is done through a seaport because this is the most commonly used means of international trade globally.

It is important to note that although *Doing Business* indicators are actionable, this does not necessarily mean that they are all "action-worthy" in particular country contexts. Business regulation reforms are one element of a strategy aimed at improving competitiveness and establishing a solid foundation for sustainable economic growth. Effective management of the

[5] According to data made public by the Ministry of Justice in Chile, notaries gross from US$150 to 180 million a year, around US$460,000–550,000 for each of Chile's 328 notaries, while the average income per capita in Chile is of US$12,280 a year. A Chilean notary's average income is similar to that of an Australian high court judge, one of the highest paid in the OECD, and it exceeds by 25% the salaries of high court judges of other high-paying OECD economies, such as Switzerland and the United Kingdom. So lucrative is the profession that retiring judges in Chile often aspire to start a second career as notaries.

public finances, adequate attention to issues of education and training, the extent to which governments facilitate the use of the latest technologies to boost productivity in the economy overall and to improve the quality of public services, appropriate regard for the quality of water and air, to safeguard people's health, and so on are all important goals to pursue and governments will have to decide what particular set of priorities fits best with the needs of the country. To say that countries should pursue the establishment of a sensible set of rules for private sector activity (as embodied, for instance, in the *Doing Business* indicators) does not suggest that this should be at the expense of other worthy policy goals. Often, a multifaceted approach would appear to be best, given the interconnections between various policy objectives.

15. How did the *Doing Business* team address the IEG report recommendations?

The 2008 IEG[6] report on *Doing Business* made the following three recommendations:

1. To improve the credibility and quality of the rankings, the *Doing Business* team should:

a) Take a strategic approach to selecting and increasing the number of informants:
– Establish and disclose selection criteria for informants.
– Focus on the indicators with fewest informants and countries with the least reliable information.
– Formalize the contributions of the supplemental informants by having them fill out the questionnaire.
– Involve Bank Group staff more actively to help identify informants.

b) Be more transparent on the following issues of process:
– *Informant base*: Disclose the number of informants for each indicator at the country level, differentiating between those who complete questionnaires and those who provide "supplemental" information.
– *Changes in data*: Disclose all data corrections and changes as they are made. Explain their effect on the rankings, and, to facilitate research, make available all previously published data sets.
– *Use of the indicators*: Be clear about the limitations in the use of the indicators for a broader policy dialogue on a country's development priorities.

c) Revise the Paying Taxes indicator to include only measures of administrative burden. Since the tax rate is an important part of the business climate, *Doing Business* should continue to collect and present simple information on corporate tax rates, but exclude it from the

[6] The Independent Evaluation Group (IEG) is charged with evaluating the activities of IBRD and IDA (the World Bank), the work of IFC in private sector development, and MIGA's guarantee projects and services. The Director-General of IEG reports directly to the World Bank Group's Board of Directors. The goals of evaluation are to provide an objective assessment of the results of the Bank Group's work and to identify and disseminate lessons learned from experience.

rankings (as it does for information on non-wage labor costs in the Employing Workers indicator). A wider range of informants should also be engaged for the Paying Taxes indicator.

2. To make its reform analysis more meaningful, the *Doing Business* team should:

a) Make clear that *Doing Business* measures improvements to regulatory costs and burdens, which is only one dimension of any overall reform of the investment climate.
b) Trace the impact of *Doing Business* reforms at the country level. The *Doing Business* team should work with country units to analyze the effects of implementing the reforms measured by the *Doing Business* indicators (such as revised legislation or streamlined process) on: (i) firm performance; (ii) perceptions of businessmen on related regulatory burdens; and (iii) the efficiency of the regulatory environment in the country.

3. To plan future additions to or modifications of the indicators, the *Doing Business* team should:

a) Use Bank analyses to drive the choice of *Doing Business* indicators. Business Enterprise Surveys, Investment Climate Assessments, and other work can help determine stakeholders' priorities for domestic private sector growth. The *Doing Business* team should use such analyses to determine the choice of new indicators, and periodically assess its current set of indicators.
b) Pilot and stabilize the methodology before including new indicators in rankings. Frequent changes in methodology make comparison across time less meaningful. New indicators should be piloted—that is, data collected and published for comment, but not factored into the rankings—until the methodology is validated and stabilized.

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As shown in Table 6, in June 2012, IEG rated the status of implementation of these recommendations "substantial," "medium," and "high," archiving the file to effectively close the process of review. Two of the three recommendations were rated "completed," with the third ("to make its reform analysis more meaningful") rated incomplete, but still archived. Management and IEG both agreed that the analysis on reforms is underway but can be continually strengthened to better inform policy design.

Table 6. IEG's assessment of status of implementation on the *Doing Business 2008* recommendations (June 2012)*

Recommendations	Level of adoption	Status rating
1. To improve the credibility and quality of the rankings.	Substantial	Completed and archived
2. To make its reform analysis more meaningful.	Medium	Incomplete and archived
3. To plan future additions to or modifications of the indicators.	High	Completed and archived

**Source:* IEG "Results and Performance 2012, Volume III: Management Action Record."
http://ieg.worldbankgroup.org/content/dam/ieg/rap2012/rap2012_vol3.pdf

To achieve these ratings, the *Doing Business* team addressed the IEG report recommendations in the following ways:

1. **To improve the credibility and quality of the rankings, the *Doing Business* team should:**

a) Take a strategic approach to selecting and increasing the number of contributors:
***Increase the overall number of contributors for DB 2013*:** The *Doing Business* team continues to increase the contributor pool with each new report. The number of contributors increased from 5,540 in the *DB 2008* report to 9,661 in the *DB 2013* report. These 9,661 contributors provided a total of 12,133 contributions (Table 7).

Table 7. Increase in contributions by topic from *DB2008* to *DB2013*

Indicator	Number of contributions in DB2008	Number of contributions in DB2013* *(excluding new economies added*)*	% increase	Number of contributions in DB2013 *(including new economies added*)*	% increase
Starting a business	968	1,532	58%	1,585	64%
Dealing with construction permits	492	815	66%	852	73%
Getting electricity	--	--	--	830	n/a
Registering property	749	1,027	37%	1,069	43%
Getting credit	701	1,277	82%	1,325	89%
Protecting investors	486	1,056	117%	1,083	123%

Paying taxes	708	1,121	58%	1,173	66%
Trading across borders	913	898	-2%	933	2%
Enforcing contracts	687	1,110	62%	1,146	67%
Resolving insolvency	661	1,043	58%	1,085	64%
Employing workers	663	1,019	54%	1,052	59%

Note: Some contributors may have responded to multiple topic surveys. For example, lawyers specialized in corporate law can often answer the questionnaires for both the Starting a Business and the Protecting Investors indicators; hence the column totals in the table will exceed the number of individuals delivering data to *Doing Business*.

* From DB 2008 to DB 2013, the sample of economies increased from 178 to 185.

***Establish and disclose selection criteria for contributors*:** To ensure accurate interpretation of regulations and reliable time estimates, *Doing Business* works with local experts who routinely administer or advise on legal and regulatory requirements. The objective is to find the most knowledgeable and experienced contributors in each area of business regulation. *Doing Business* targets professionals in various areas of expertise in line with the topics covered:

- Commercial Lawyers
- Notaries
- Judges
- Architects
- Trade logistics specialists
- Accountants
- Electricians

In addition, government agencies or other institutions directly involved in an area covered by *Doing Business* are also selected and invited as contributors (e.g., company registrars, securities commissions, public credit registries, private credit bureaus, land registry officials, tax authority officials, utility companies). The selection criteria and method to nominate contributors are posted on the *Doing Business* website: http://www.doingbusiness.org/contributors/doing-business/become-partner

To supplement information provided by the contributors, the *Doing Business* team also collects relevant laws and regulations underlying the indicators. The team uses these to verify the information provided by the contributors and as a resource for scholars and governments. The *Doing Business* law library is the largest free online collection of business laws and regulations in the world with more than 5,000 laws and regulations on file.[7]

Governments, World Bank Group regional experts and developmental partners also provide information to the teams. *DB 2012* received updates from 63 governments. For *DB 2013*, 84 governments provided input and World Bank Group and development partner colleagues provided an additional input related to 80 economies.

***Focus on economies and indicators with fewest contributors*:** The *Doing Business* team dedicated special efforts and attention to economies and indicators with the lowest numbers of contributors. Contributor recruitment and data collection missions were conducted in 86 economies for *DB 2011* to *DB 2013.*

The team recruited new contributors in all countries visited, including in economies in which contributor recruitment was particularly challenging, such as Bhutan, Bosnia and Herzegovina, Chad, Congo (Rep.), Dem. Rep. of Congo, Fiji, Guinea Bissau, Kiribati, Lao PDR, Lesotho, Mauritania, Papua New Guinea, Samoa, Swaziland, Vanuatu, Venezuela, and Zimbabwe.

The contributor base for the Paying Taxes indicator was further diversified. In *DB 2012*, 96% of the economies covered had contributors other than PricewaterhouseCoopers for the Paying Taxes indicator (175 out of 183 economies). On average, each indicator increased its contributor base by 40% compared to *DB 2008* (as presented in Table 8 above).

***Formalize inputs of supplemental contributors*:** The *Doing Business* team receives responses through self-questionnaires from the great majority of contributors. Occasionally, these questionnaires are elaborated or supplemented by team-questionnaires following conference calls and country visits, usually because of language barriers or technological constraints, such as lack of access to computers or fax machines. Moreover, *Doing Business* consults contributors who have knowledge or expertise in a particular area of a questionnaire and who can offer partial responses, for example, by consulting utility companies to respond to the relevant section of the "dealing with construction permits" questionnaire. In these cases, *Doing Business* maintains the relevant portion of the questionnaire or other formal documentation of the interaction. All people who provide a substantial contribution are included and recognized in the contributor list, both in the published report and on the *Doing Business* website: http://www.doingbusiness.org/contributors/doing-business.

Involve Bank Group staff to help identify contributors: For *DB 2011*, *DB 2012* and *DB 2013,* the *Doing Business* team has invited World Bank Group staff, as well as Executive Directors and their staff, to nominate contributors. These invitations are extended through

[7] http://www.doingbusiness.org/law-library.

meetings, country visits, and other communications, and they continue to be a source of new contributors. For example, World Bank Group country staff in Algeria, Armenia, Belarus, Bhutan, Cameroon, Chad, Congo (Rep.), Japan, Kazakhstan, Lao PDR, Mali, Malawi, Montenegro, Mauritania, Morocco, Nepal, Nigeria, Saudi Arabia, Tajikistan, Trinidad and Tobago, and Uzbekistan have assisted the *Doing Business* team in identifying new contributors.

b) Be more transparent on the following issues of process:

***Informant base*:** Contributor lists are published in *Doing Business* reports and on the website. (Contributors are only excluded from this list upon their own request.) Management makes available on the *Doing Business* website the number of contributors by indicator at the country level. This information is available by selecting any country at: http://www.doingbusiness.org/contributors/doing-business. The electronic law library with links to relevant laws and legislations is also accessible at: http://www.doingbusiness.org/law-library.

***Changes in data*:** Data changes and corrections rates are published in the *Doing Business* reports and on the website. Specifically, the "About *Doing Business*" and "Data Notes" sections of the report describe changes to methodology and data correction rates. The website's "Methodology" section provides links to the following:

1) Changes to methodology this year (http://www.doingbusiness.org/Methodology/Methodology-Note)
2) Changes to methodology of previous years (http://www.doingbusiness.org/Methodology/Changes-to-the-Methodology)
3) Common misconceptions about *Doing Business* (http://www.doingbusiness.org/methodology/common-misconceptions)
4) Data Corrections to *DB 2012* data (which includes both published and corrected data) http://www.doingbusiness.org/methodology
5) Data Corrections to *DB 2011* data (which includes both published and corrected data) http://www.doingbusiness.org/methodology
6) Data Corrections to *DB 2010* data (which includes both published and corrected data) http://www.doingbusiness.org/methodology
7) Data Corrections to *DB 2009* data (which includes both published and corrected data) http://www.doingbusiness.org/methodology
8) Data Corrections to *DB 2008* data (which includes both published and corrected data) http://www.doingbusiness.org/methodology
9) Economy characteristics that were used by the *Doing Business* report http://www.doingbusiness.org/data/exploreeconomies/economycharacteristics

10) A link to the *Doing Business* IEG report: http://go.worldbank.org/CYH45V15G0

Use of the indicators*:* The IEG evaluation noted that, while effective in catalyzing reform debates and dialogue, the *Doing Business* indicators did not appear to have distorted policy priorities or encouraged policymakers to make superficial changes to improve rankings. It even went so far as to suggest that the approach could successfully promote reform in other areas, noting "the DB exercise has demonstrated that cross-country rankings can be effective in spurring dialogue and motivating interest and action. It could potentially be applied to other development issues—those for which actionable indicators can serve as proxies for the target outcomes and for which the direction of improvement is uniform for all countries."[8]

Recognizing the need to use the measurements appropriately, however, *Doing Business* reports have consistently encouraged broad policy dialogue since 2008. *DB 2013* emphasizes that "When the World Bank Group engages with governments on the subject of improving the investment climate, the dialogue aims to encourage the critical use of the *Doing Business* data—to sharpen judgment and promote broad-based reforms that enhance the investment climate rather than a narrow focus on improving the *Doing Business* rankings."[9]

c) Revise the Paying Taxes indicator to include only measures of administrative burden

World Bank Group management did not implement this recommendation for three reasons. First, by excluding tax rates and other mandatory payments to government from analysis on the effectiveness of a country's regulatory environment, the recommendation was at odds with well-established empirical literature demonstrating that, for instance, the corporate tax rate has a large adverse impact on aggregate investment, FDI, and entrepreneurial activity and is (negatively) correlated with investment in manufacturing and (positively) correlated with the size of the informal economy. Furthermore, such recommendation was also at odds with other World Bank analyses on determining priorities for regulatory reform. For example, the World Bank Enterprise Surveys (www.enterprisesurveys.org) find that (excessively high) tax rates are considered an obstacle to private sector activity in more than twice as many countries as the burden of tax administration. *Doing Business* records the time and cost related to paying taxes and mandatory contributions from the perspective of a local SME, for whom tax and mandatory payment burdens are an important consideration.

Second, the team found it could address many of the concerns by presenting more details of the data and improving the description of reform efforts. The *Doing Business* team consulted with the International Tax Dialogue (ITD, which includes representatives from the OECD, IMF, IDB, EC, and World Bank Group) and added new questions to the Paying Taxes

[8] http://go.worldbank.org/CYH45V15G0

[9] *Doing Business 2013*, page 22.

questionnaires to provide more detail on employment taxes and social security contributions paid by employees. This information added to the data already collected on contributions by the firm. The new information supports research on the labor tax wedge and allows policymakers and researchers to see how many countries are affected by a greater burden placed on the employee versus the firm. The questions also looked into the time firms spend on post-filing interactions with the tax authorities as well as time spent on taxes other than consumption, labor, and profit taxes.[10]

Finally, management introduced a threshold for the total tax rate for the purpose of calculating the ranking on the ease of paying taxes. In consultation with the ITD, World Bank Group colleagues, IMF and CIAT (Inter-American Center of Tax Administrations) representatives and private sector experts, the team adjusted the methodology so that economies with a total tax rate below a certain threshold receive the same ranking on the Total Tax Rate indicator. That threshold is the highest total tax rate among the top 15% of economies in the ranking of the Total Tax Rate. It is calculated and adjusted on a yearly basis.

Since the Total Tax Rate is one of 31 indicators included in the ranking on the overall Ease of Doing Business, this change has minimal effects on the overall rankings. The correlation between rankings on the ease of paying taxes with and without this threshold is 99%. In addition, the correlation between the Ease of Doing Business ranking with and without this threshold is also 99%. The threshold is not based on any economic theory of an "optimal tax rate" that minimizes distortions or maximizes efficiency overall in the tax system of an economy. Instead, it is mainly empirical in nature, set at the lower end of the distribution of tax rates levied on medium-size enterprises in the manufacturing sector, as observed through the Paying Taxes indicators. This reduces the bias in the indicator toward economies that do not need to levy significant taxes on companies like the *Doing Business* standardized case study company because they raise public revenue in other ways—for example, through taxes on sectors other than manufacturing or from natural resources, all of which are outside the scope of the methodology. The threshold is meant to emphasize the purpose of the indicator: to highlight economies where the tax burden on business is high relative to the tax burden in other economies, in many cases creating perverse incentives for the business community, such as a preference for informality or widespread tax evasion and avoidance. Giving the same ranking to all economies whose total tax rate is below the threshold avoids awarding economies in the scoring for having an unusually low total tax rate, often for reasons unrelated to government policies toward enterprises. For example, economies that are very small or rich in natural resources do not need to levy broad-based taxes.

[10] The current time sub-indicator only measures time spent on these three types of taxes.

2. To make its reform analysis more meaningful, the *Doing Business* team should:

a) Make clear what *Doing Business* measures and what it does not:

Doing Business reports have consistently noted that the indicators capture only a subset of the broader business environment. The "About *Doing Business*" chapter contains a two-page disclaimer on what *Doing Business* does not cover and the limitations of its approach. We include a truncated version here:

"The *Doing Business* data have key limitations that should be kept in mind by those who use them. The *Doing Business* indicators are limited in scope. In particular:

> • *Doing Business* does not measure the full range of factors, policies and institutions that affect the quality of the business environment in an economy or its national competitiveness. It does not, for example, capture aspects of security, the prevalence of bribery and corruption, market size, macroeconomic stability (including whether the government manages its public finances in a sustainable way), the state of the financial system or the level of training and skills of the labor force.
>
> • Even within the relatively small set of indicators included in *Doing Business*, the focus is narrow. The Getting Electricity indicators, for example, capture the procedures, time and cost involved for a business to obtain a permanent electricity connection to supply a standardized warehouse. Through these indicators *Doing Business* thus provides a narrow perspective on the range of infrastructure challenges that firms face, particularly in the developing world. […]
>
> • *Doing Business* does not attempt to measure all costs and benefits of a particular law or regulation to society as a whole. The Paying Taxes indicators, for example, measure the total tax rate, which in isolation is a cost to the business. The indicators do not measure, nor are they intended to measure, the benefits of the social and economic programs funded through tax revenues. Measuring business laws and regulations provides one input into the debate on the regulatory burden associated with achieving regulatory objectives. Those objectives can differ across economies. […]"[11]

Similar disclaimers and guidance on using the data are included in the Data notes section of the report and the "About Us" section of the website. In addition, the *Doing Business* communications strategy also makes extensive use of these disclaimers.

[11] *Doing Business 2013: Smarter Regulations for Small and Medium-Size Enterprises*, p. 17.

b) Trace the impact of *Doing Business* reforms at the country level:

Doing Business tracks and reports annually on regulatory changes implemented in the areas which it covers. Researchers within the *Doing Business* team, in other parts of the World Bank Group and externally have sought to track the direct impact of such changes, and to trace the linkages to desired economic outcomes.

This growing body of empirical research has yielded some promising findings, including the following:

- Lower costs for business registration encourage entrepreneurship and enhance firm productivity;
- Simpler business registration translates into greater employment opportunities in the formal sector;
- A sound regulatory environment leads to stronger trade performance;
- Regulations and institutions that form part of the financial market infrastructure—including courts, credit information systems, and collateral, creditor, and insolvency laws—play a role in easing access to credit.

Details are available through the "Research" section on the *Doing Business* website (http://www.doingbusiness.org/research), which cites peer-reviewed articles published in the top 50 economic journals. This new section, which will be updated annually, highlights relevant research on the linkages of business regulations with business activity and economic outcomes. The information is searchable by *Doing Business* topic, and abstracts are available for quick reference. The "About *Doing Business*" chapter in the report also provides an abbreviated summary of these findings.

The *DB 2012* report also introduced detailed economy case studies for three economies: Republic of Korea, the former Yugoslav Republic of Macedonia, and Mexico. These are in-depth looks at the process of reform, regulatory changes and business environment outcomes. The *DB 2013* report includes reform case studies on Colombia, Latvia, and Rwanda. And since 2010, *Doing Business* has worked with relevant officials in Burkina Faso, Colombia, the Arab Republic of Egypt, the Republic of Korea, the former Yugoslav Republic of Macedonia, Mexico, Portugal, and Rwanda to gather impact data on specific business regulation reforms.

3. **To plan future additions to or modifications of the indicators, the *Doing Business* team should:**

a) Use Bank analyses to drive the choice of *Doing Business* indicators:
Over the years, the choice of indicators for *Doing Business* has been guided by a rich pool of data collected through the Bank's Enterprise Surveys. These data highlight the main obstacles to business activity as reported by entrepreneurs in well over 100 countries. On occasion, indicators have been developed in response to direct requests made by the Executive Board. For instance, Getting Electricity was added in response to a Board request in 2006 to develop an infrastructure indicator. Along the way, as the indicator was developed, it was subject to widespread World Bank Group reviews, including consultations with Energy Sector Boards.

Prior to the publication of *DB 2011*, an extensive process of consultation within the World Bank Group was carried out by the *Doing Business* team on all of its indicators. This consultation process included the six regions of the World Bank Group and other VPU's. These consultations continued after the *DB 2012* publication, in particular with the Legal department. The result of these consultations and peer reviews fed into the questionnaires for the *DB 2013* data collection process.

b) Pilot and stabilize the methodology before including new indicators in rankings:
Following IEG's recommendation, the *Doing Business* team's approach for new indicators is to first publish the indicators for comment, not factoring them into rankings until their methodology is validated by academic research. For example, initial results and methodology of the pilot indicator on Getting Electricity were published in *DB 2010*, and further presented in a working paper. The results were again published in *DB 2011*, and the indicator was incorporated into the rankings for *DB 2012*. The team works closely with DEC colleagues on all methodological changes to ensure solid technical grounding.

For more information on how the *Doing Business* team addressed the recommendations of IEG, please visit this link to read the full report:
http://ieg.worldbankgroup.org/content/dam/ieg/rap2012/rap2012_vol3.pdf.

16. How has the Employing Workers indicator evolved over time?

In 2008, the Independent Evaluation Group (IEG) at the World Bank conducted an evaluation of the *Doing Business* indicators. With regard to the Employing Workers indicator (EWI), the IEG report stated that: "*The employing workers indicator is consistent with the letter of ILO provisions, but not always their spirit*"[12] (IEG report, 2009, p. 33).

Unlike for the Paying Taxes indicator, the IEG report did not provide any specific recommendations or suggested any specific improvements affecting the design of the EWI.

Originally the EWI was designed to measure the costs for firms in matters of labor regulations, mainly as regards employment protection rules. Critics of the EWI argued that a more comprehensive approach to labor market policies was needed and that a better balance between measuring regulation and flexibility needed to be achieved. In particular, it was argued that the EWI methodology did not acknowledge the benefits for workers that arise from the labor regulations measured in the indicator. Partly in response to these concerns, the World Bank Group announced in April 2009 that it would make changes to the EWI, and that for this purpose it would consult with a wide group of stakeholders representing a broad range of views and experience. This was followed by a Guidance Note to all World Bank Group staff removing the EWI as a guidepost to the World Bank Country Policy and Institutional Assessment questionnaire, and directing that the EWI was not to be used as a basis for policy advice.

The work of the Consultative Group, which included labor lawyers, employer and employee representatives, and experts from the ILO, the OECD, civil society, and the private sector, commenced in September 2009. The guidance of the Consultative Group provided the basis for several changes to the methodology, which were approved in April 2011. The main changes recommended by the Consultative Group and endorsed by the overwhelming majority of its members were:

- The average of workers' tenures with 1 year, 5 years and 10 years should be considered in the calculation of the annual leave and the redundancy cost, instead of 20 years;
- The measurement of paid annual leave should be modified to set a floor at 15 working days below which an economy would score a 1, indicating excessive flexibility. Annual leaves of 22 to 26 working days should score 0.5 and an annual leave of 27 days or more would score 1, for excessive rigidity;
- Economies with less than one day (24 hours) per week as rest time should be assigned a score of 1, for excessive flexibility;
- The calculation of the minimum wage ratio should change to ensure that economies where there is no minimum wage at all (legally or in practice) would not receive the best score.

[12] According to the IEG report, in only four of the 16 points measured by *Doing Business* was the EWI methodology not fully consistent with the "spirit" of the ILO conventions, although still consistent with the letter. These areas relate to the redundancy rules index.

While the consultation process was proceeding, the World Bank Group determined that the EWI data would be provided in an annex to the report, but that the data would not be scored and the indicator would not be taken into account in the calculation of the overall Ease of Doing Business ranking. This has also remained the case in the *Doing Business 2012* and *2013* editions, after the work of the Consultative Group was concluded.

Further to the methodology changes introduced to the EWI, the Consultative Group also suggested that the EWI data should be complemented with some analysis on worker protection. In order to do so, the World Bank's Human Development Network (HDN) agreed to develop a set of indicators called Worker Protection Measures (WPM), which were intended to assess the extent to which countries have regulations in place to protect workers. In 2011, the World Bank sought advice from the ILO to prepare the initial questionnaire for a pilot survey. In February 2012, it was formally agreed to establish a joint working group to move towards a World Bank-ILO report on worker protection measures, recognizing that this would be beneficial for understanding policy challenges and coherent policy advice. The initial focus of the working group was on the design of a survey to collect the necessary data for the analysis. However, the ILO is no longer interested in pursuing this research and the working group is no longer active. The World Bank will be publishing in the Social Protection and Development Working Paper Series the analysis based on the preliminary data collected by *Doing Business* on worker protection legislation.

17. How has the Paying Taxes indicator evolved over time?

The World Bank Group Independent Evaluation Group (IEG) conducted a review of the *Doing Business 2007* report in 2008.[13] Regarding the Paying Taxes indicator, the report found that the total tax rate sub-indicator was anomalous to the rest of the *Doing Business* indicators, because tax rates are an issue of fiscal policy and not business regulation. The report recommended that the methodology of the Paying Taxes indicator be revised to remove the total tax rate from the calculation of the ranking. IEG recognized that tax rates are important to business and encouraged the team to continue publishing the data, but to exclude it from the ranking calculation.

Recognizing the importance of tax rates for business, the *Doing Business* team engaged in further consultations with a group of experts from the International Tax Dialogue[14] (ITD) and PwC. The ITD reviewed the Paying Taxes indicator methodology and survey instrument and

[13] See chapters 3 and 5 of Independent Evaluation Group (IEG) 2008 report on *Doing Business* for specific findings and recommendations on the Paying Taxes indicators.

[14] The ITD is a collaborative project of the European Commission (EC), Inter-American Development Bank (IDB), International Monetary Fund (IMF), Organization for Economic Co-operation and Development (OECD) and the World Bank. The aim of the ITD is to encourage and facilitate discussion of tax matters among national tax officials, international organizations, and other key stakeholders.

made the following five final recommendations for the improvement of the Paying Taxes methodology:

(1) Highlight prominently the overall objectives of raising revenue, and the importance this has for all countries;
(2) Be clearer on the size of the case study firm, because in many countries it is a medium-size firm rather than a small one;
(3) Include more analysis on client orientation of tax administrations;
(4) Remove the Number of Payments indicator and allow the Time Taken indicator to be the sole arbiter of the compliance burden of filing returns and making payments;
(5) Remove the Tax Rate indicator or, if retained, alter the methodology to ensure that it is less open to influencing bad policy decisions. Concern was noted that the Total Tax Rate indicator could induce governments to lower tax rates or elements of the total tax rate, such as labor taxes borne by the employer, to effect possible improvements in the *Doing Business* rankings.

Regarding recommendations 1–3, *Doing Business* addressed and implemented the recommendations from the *Doing Business 2010* report onwards. The report, the website, and presentations made by the team include prominent statements on the role of taxation in generating public revenue, acknowledge that low rates are not necessarily a model, and clearly report the key elements of the case study, including the size of the business.

The *Doing Business* team also introduced a series of additional questions aimed at assessing qualitative factors associated with tax policy and administration and these continue to be collected. Several questions are asked in each of the following categories: clarity and accessibility of the tax rules, how centralized/decentralized the tax system is, how tax authorities deal with taxpayers, the process for dealing with audits and disputes, as well as more general questions on the best and the worst aspects of the tax system.

Regarding Recommendation 4 on the number of payments, the Paying Taxes indicator (PT) continues to include the Number of Payments sub-indicator. The ITD recognized that the number of physical interactions with tax authorities may add to client burden, but felt that a high number of payments may in fact be in the interest of tax payers because firms might for cash-flow reasons prefer to pay their taxes in more frequent but smaller installments. *Doing Business* felt it was important to continue including the indicator, since it provides some expression of the number of different taxes/levies assessed on firms, and thus can be objectively measured, as well as recognizing the benefit of e-filing and e-payment. As input to the discussion, *Doing Business* conducted simulations of rankings with the number of payments removed and doubling the weight attributed to the time to comply measure and a ranking using the number of taxes sub-component instead of the number of payments. The correlation between the current PT methodology rankings (i.e., using both time and number of payments) and alternative rankings (using time only) was 0.872. The correlation between current PT rankings (i.e., using both time and number of payments) and alternative rankings (using number of taxes) is 0.855. This implies a close correlation overall between the different ranking methodologies. The ITD recognized that making changes beyond using data differently would require a pilot and should only be considered where there is clear benefit. Since no clear benefit was identified, no methodological change was implemented in this regard.

Regarding Recommendation 5 on the issue of total tax rates, following several rounds of discussion, a minimum threshold was introduced to the total tax rate sub-indicator in the *Doing Business 2012* report for the purpose of calculating the ranking. Recognizing that identifying an optimal total tax rate that applies to all 185 economies measured might be an impossible task, the team worked on different options to identify a measure that can be reasonably used to establish such a threshold. In the latest report, the threshold was set at the 15th percentile of the total tax rate distribution. All economies with a total tax rate below this level receive the same percentile ranking on this component. The threshold is not based on any economic theory of an "optimal tax rate" that minimizes distortions or maximizes efficiency in the tax system of an economy overall. Instead, it is mainly empirical in nature, set at the lower end of the distribution of tax rates levied on medium-size enterprises in the manufacturing sector as observed through the Paying Taxes indicators. This reduces the bias in the indicators toward economies that do not need to levy significant taxes on companies like the *Doing Business* standardized case study company, because they raise public revenue in other ways—for example, through taxes on foreign companies, through taxes on sectors other than manufacturing, or from natural resources (all of which are outside the scope of the methodology).

18. How is the number of reforms in each cycle measured?

A reform is counted if the private sector experts consulted by *Doing Business* have confirmed that a legal or administrative change has taken place in one of the areas measured by the report that affects the indicators during the period relevant for the publication and is implemented in practice. For example, the reforms recorded in *Doing Business 2013* (published on October 23, 2012) were adopted and effectively implemented between June 1, 2011 and May 31, 2012. Reforms that come into effect after the annual cutoff date of June 1 are assessed for the publication of the following year.

Reforms are counted by indicator set. If a law change affects two areas measured in *Doing Business* it is possible to be counted twice. For instance, a new company law can change the list of requirements needed for starting a business and can also change the disclosure requirements measured in protecting investors. In this case the new company law will be counted as separate reforms for the two indicator topics.

The exact rules for counting a reform differ from one indicator to another. For the legal-based indicators, such as Getting Credit and Protecting Investors, a reform is recorded if a law has been passed, and has become effective by the cutoff date. For example, in July 2011, the Greek Capital Markets Authority issued a new regulation requiring greater disclosure obligations for listed companies in case of related-party transactions. Since the new regulation directly addressed the issues measured by the Protecting Investors indicator and came into effect before the cutoff date of June 1, 2012, the *DB 2013* report recognized this government action as a reform.

For all the other indicators, the relevant laws not only have to become legally effective but local experts also have to confirm that the new rules are being applied by the implementing agencies. For example, Kosovo eliminated the requirement to obtain a business permit from the municipality of Pristina in order to start a company. However, private sector practitioners reported that, as of June 1, 2012, the Municipality was still requiring this permit from entrepreneurs as a condition to start a business. Therefore, the reform was not recognized by the report because it was not being applied in practice.

The team also counts selected reforms that do not necessarily affect the score of a particular indicator, but are nevertheless considered important advances in a country's regulatory policy. For example, for the Dealing with Construction Permits indicator, a reform is counted for countries that pass a new improved building code, because such revisions reflect significant improvements to the construction environment. However, these "extraordinary" reforms represent a very small percentage of the reforms counted every year.

19. Can data comparability be maintained as the methodology of existing indicators is revised?

Throughout its ten years of existence, *Doing Business* has revised the indicators at different points in time to make sure they reflected up-to date knowledge of the areas covered and corrected any initial flaws. In fact, the methodology has undergone continual improvement over the years. For enforcing contracts, for example, the amount of the disputed claim in the case study was increased from 50% of income per capita to 200% after the first year of data collection, as it became clear that smaller claims were unlikely to go to court.

Another change related to starting a business. The minimum capital requirement can be an obstacle for potential entrepreneurs. *Doing Business* measured the required minimum capital, regardless of whether it had to be paid up front or not. In many economies, only part of the minimum capital has to be paid up front. To reflect the relevant barrier to entry, the paid-in minimum capital has been used, rather than the required minimum capital.

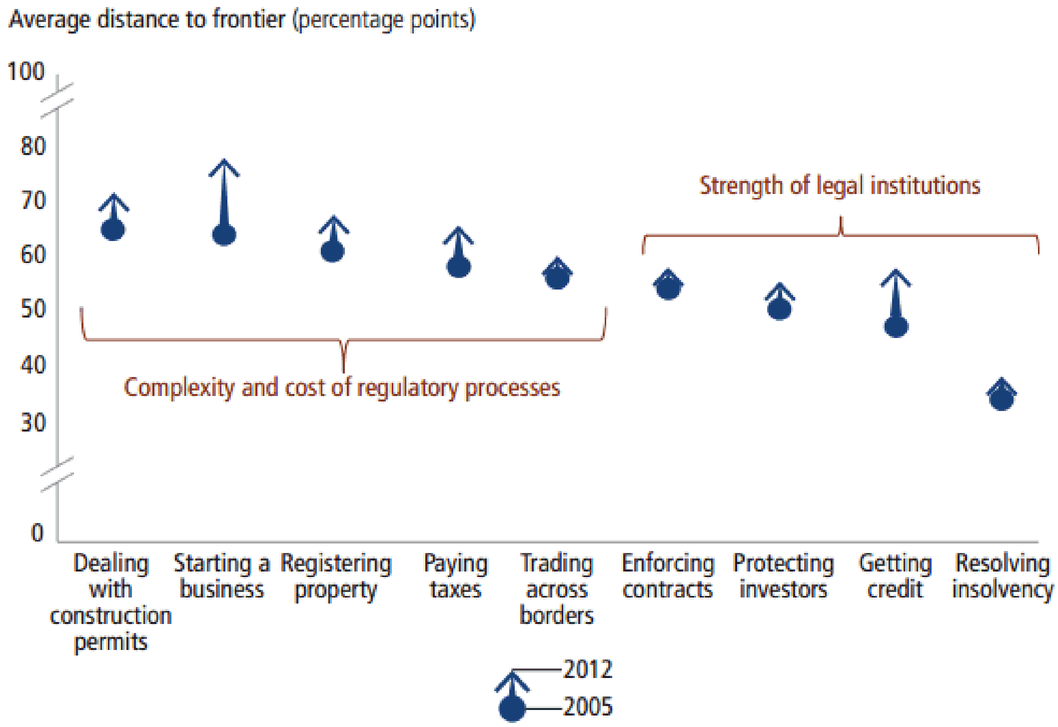
All the changes implemented so far have broadly maintained the data comparability over time. To provide a comparable time series for research, the data set is back-calculated to adjust for changes. However, depending on the extent of the methodology change, it may not be possible to maintain strict comparability over time. For instance, changing the case study in dealing with construction permits from a warehouse for storage purposes to an apartment building would make it impossible to maintain data comparability over time.

The addition of new indicators always creates a break in the series. The data for new indicators is available only from the date of inclusion. For instance, data for Getting Electricity (the most recent addition in the *Doing Business* series) is available only from *Doing Business 2010* onwards. This of course does not affect the data comparability of the other indicators. It affects only the comparability of aggregate measures, such as the Ease of Doing Business ranking and the overall distance to the frontier. However, there are good reasons to expand the set of indicators measured in *Doing Business*. One of the criticisms of *Doing Business* is its narrow focus. To take an example (from management's response to comments provided ahead of the Informal Board Meeting on *Doing Business*, July 11, 2012): The team is sympathetic to the view that the Getting Electricity indicator provides a narrow perspective on the whole range of infrastructure challenges faced by firms, particularly in the developing world. For instance, *Doing Business* does not address the extent to which inadequate roads, rail, ports, and communications facilities may add to firms' costs and undermine competitiveness. This is an important area of additional research and a credible case can be made in favor of a broadening of the infrastructure dimension of *Doing Business*.

20. Has there been convergence over time on any of the *Doing Business* indicators?

One of the findings of *Doing Business 2013* is that convergence has started on several indicator sets, in particular with lower performing countries gradually moving closer to international best practices. However, at the current speed of convergence, we are still many years away from reaching full convergence, suggesting that the current *Doing Business* methodology will be relevant for most developing countries for many years ahead, particularly in Sub-Saharan Africa and South Asia, the two regions of the world with the most complex and costly business procedures and the weakest legal institutions. This is especially true in the areas of Trading Across Borders, Enforcing Contracts, Protecting Investors, Getting Credit and Resolving Insolvency (Figure 6).

Figure 6: The greatest convergence in regulatory practice has occurred in business start-up



Note: Figure illustrates the extent to which average regulatory practice across economies has moved closer to the most efficient practice in each area measured by *Doing Business*. The distance to frontier measure shows how far on average an economy is from the best performance achieved by any economy on each *Doing Business* indicator since 2005. The measure is normalized to range between 0 and 100, with 100 representing the best performance (the frontier). The data refer to the 174 economies included in *Doing Business 2006* (2005). Eleven economies were added in subsequent years.

Source: Doing Business database.

As the process of convergence proceeds across the various indicators, certain methodological choices may emerge. One option might be to modify the design of the indicator in order to make it more relevant under a more competitive business environment for small and medium enterprises. Alternatively, consideration may be given to reducing the weight of this indicator within the *Doing Business* aggregate rankings. In that scenario, the inclusion of other indicators—or changes to existing indicators to reflect changes in the global economy—would lend the project a degree of dynamism that would be highly desirable. The issue of actually permanently removing an indicator from *Doing Business* is unlikely to arise any time soon, given the still fairly significant gaps in performance across the indicators and across the countries covered in the report.

21. To what extent does a country's performance on the Trading across Borders indicator also reflect weaknesses in the transportation infrastructure, over and above procedural requirements?

The Trading across Borders indicator measures the time and cost associated with procedures for exporting and importing a standardized cargo of goods by sea, as well as all documents needed from an exporter/importer's perspective. The indicator is designed with the goal of giving the most accurate measure possible (while remaining comparable) of what traders around the world experience when importing and exporting. For example, the indicators assume that the trade is done through a seaport, because this is the most commonly used means of international trade globally. They also look at the trading environment between a warehouse in the most populous city and the most commonly used seaport, because that will capture the most representative sample of traders' experiences. Therefore, the Trading across Borders data not only captures the administrative burden of complying with customs and other authorities' requirements, but also logistical as well as transportation constraints.

On average, the time required for inland transportation accounts for approximately 20% of total trading time and roughly 50% of the total cost of trading. For the 41 landlocked economies in the *Doing Business* sample of 185 economies, the share of transportation time and costs of the total is even higher (see Table 8). This is due to the fact that, on average, goods must travel longer and go through sometimes multiple inland border controls to reach the port. Recognizing their geographical disadvantages, many landlocked economies are initiating reforms to overcome the obstacles, through border cooperation agreements and reducing the number of checkpoints.

Table 8. Percentage of total trading time and cost spent on activities related to inland transportation

	Export time - Total	Import time - Total	Export cost – Total	Import cost - Total
% of inland transport on total trading activity *(global)*	22%	18%	50%	49%
% of inland transport on total trading activity *(landlocked countries)*	34%	30%	68%	68%

Source: Doing Business 2013.

Improvements to an economy's inland transportation do not necessarily require big investments in road or rail infrastructure. In some economies, inland transportation is burdensome due to onerous checkpoints and inspections. For example, in Kenya, by reducing the number of inspection points between Nairobi and Mombasa, time for inland transportation during importation into Nairobi decreased from an average of seven days in 2007 to four days in the following year.

22. What does the academic research tell us about the relationship between the areas measured by *Doing Business* and other economic outcomes?

A growing body of academic research tells us that both particular areas of business regulation and particular regulatory reforms in those areas are associated with vital social and economic outcomes. These outcomes include economic growth, firm creation and productivity, employment, formality, international trade, access to financial services, and the survival of struggling but viable firms.

In the past much attention was given to exploring links to microeconomic outcomes, such as firm creation and employment. Recent research focuses on how business regulations affect the behavior of firms by creating incentives (or disincentives) to register and operate formally, to create jobs, to innovate, and to increase productivity.[15] This research has been made possible by a decade of *Doing Business* data combined with other data sets. Some 1,245 research articles published in peer-reviewed academic journals, and about 4,071 working papers available through Google Scholar, refer to the *Doing Business* data.[16] Using a range of different empirical strategies, the literature has produced a number of robust findings, including:

Smarter business regulation promotes economic growth. Economies with smarter business regulation grow faster. One study found that for economies in the best quartile of business regulation as measured by *Doing Business* indicators, the difference in business regulation with those in the worst quartile is associated with a 2.3 percentage point increase in annual growth rates.[17] Another study found that regulatory reforms making it easier to do business in relatively low-income economies are associated with an increase in growth rates of 0.4 percentage point in the following year.[18]All the growth analysis so far has been done at the cross country level where causality is difficult to prove.

Efficient business registration promotes greater entrepreneurship and firm productivity. Economies that have efficient business registration also tend to have a higher entry rate by new

[15] For details, see Djankov and others (2002); Alesina and others (2005); Banerjee and Duflo (2005); Perotti and Volpin (2005); Klapper, Laeven and Rajan (2006); Fisman and Sarria-Allende (2010); Antunes and Cavalcanti (2007); Barseghyan (2008); Eifert (2009); Klapper, Lewin and Quesada Delgado (2009); Djankov, Freund and Pham (2010); Klapper and Love (2011a); Chari (2011); and Bruhn (2011).

[16] According to searches for citations of the eight background papers that serve as the basis for the *Doing Business* indicators in the Social Science Citation Index and on Google Scholar (http://scholar.google.com). The eight background papers are available at http://www.doingbusiness.org/methodology

[17] Djankov, McLiesh and Ramalho 2006.

[18] Eifert 2009.

firms and greater business density.[19] Faster business registration is associated with more businesses registering in industries with the strongest potential for growth, such as those experiencing expansionary global demand or technology shifts.[20] Easier start-up is associated with more investment in industries often sheltered from competition, including transport, utilities, and communications.[21] Empirical evidence also suggests that more efficient business entry regulations improve firm productivity and macroeconomic performance.[22]

Lower costs for business registration improve formal employment opportunities. Because new firms are often set up by high-skilled workers, lowering entry costs often leads to higher take-up rates for education, more jobs for high-skilled workers and higher average productivity.[23] And by increasing formal registration, it can also boost legal certainty, because the newly formal firms are now covered by the legal system, benefiting themselves as well as their customers and suppliers.[24]

Determining the empirical impact of regulatory reforms is not easy. Based only on cross-country correlation analysis, it is difficult to isolate the effect of a particular regulatory reform, because of all the other factors that may vary across economies which may not have been accounted for in the analysis. Aware of these limitations, authors of a growing number of studies have been able to determine causality by analyzing regulatory changes within a country over time or by using panel estimations. For example, analysis looking at changes to business registration finds that:

- In Colombia, the introduction of one-stop shops for business registration in different cities across the country was followed by a 5.2% increase in new firm registrations.[25]
- In Mexico a study analyzing the effects of a program simplifying municipal licensing found that it led to a 5% increase in the number of registered businesses and a 2.2% increase in employment. Moreover, competition from new entrants lowered prices by 0.6% and the income of incumbent businesses by 3.2%.[26] A second study found that the program was more effective in municipalities with less corruption and cheaper additional registration procedures.[27] Yet another study found that simpler licensing may result in both more wage

[19] Klapper, Lewin and Quesada Delgado 2009. *Entry rate* refers to newly registered firms as a percentage of total registered firms. *Business density* is defined as the total number of businesses as a percentage of the working-age population (ages 18–65).
[20] Ciccone and Papaioannou 2007.
[21] Alesina and others 2005.
[22] Loayza, Oviedo and Servén 2005; Barseghyan 2008.
[23] Dulleck, Frijters and Winter-Ebmer 2006; Calderon, Chong and Leon 2007; Micco and Pagés 2006.
[24] Masatlioglu and Rigolini 2008; Djankov 2009.
[25] Cardenas and Rozo 2009.
[26] Bruhn 2011.
[27] Kaplan, Piedra and Seira 2007.

workers and more formal enterprises, depending on the personal characteristics of informal business owners: those with characteristics similar to wage workers were more likely to become wage workers, while those with characteristics similar to entrepreneurs in the formal sector were more likely to become formal business owners.[28]

- In India a study found that the progressive elimination of the "license raj"—the system regulating entry and production in industry—led to a 6% increase in new firm registrations.[29] Another study found that simpler entry regulation and labor market flexibility were complementary: in Indian states with more flexible employment regulations, informal firms decreased by 25% more, and real output grew by 18% more, than in states with less flexible regulations.[30] A third study found that the licensing reform resulted in an aggregate productivity increase of 22% among the firms affected.[31]
- In Portugal, the introduction of a one-stop shop for businesses led to a 17% increase in new firm registrations. The reform favored mostly small-scale entrepreneurs with low levels of education operating in low-tech sectors such as agriculture, construction, and retail.[32]

An effective regulatory environment improves trade performance. Strengthening the institutional environment for trade—such as by increasing customs efficiency—can boost trade volumes, as shown in cross country studies.[33] In Sub-Saharan Africa, an inefficient trade environment was found to be among the main factors in poor trade performance.[34] One study found that a one-day reduction in inland travel times leads to a 7% increase in exports.[35] Another found that among the factors that improve trade performance are access to finance, the quality of infrastructure, and the government's ability to formulate and implement sound policies and regulations that promote private sector development.[36] The same study showed that the more constrained economies are in their access to foreign markets, the more they can benefit from improvements in the investment climate. Yet another study found that improvements in transport efficiency and the business environment have a greater marginal effect on exports in lower-income economies than in high-income ones.[37] One study even suggests that behind-the-border measures to improve logistics performance and facilitate trade may have a larger effect on trade, especially on exports, than tariff reduction.[38]

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[28] Bruhn 2012.
[29] Aghion and others 2008.
[30] Sharma 2009.
[31] Chari 2011.
[32] Branstetter and others 2010.
[33] Djankov, Freund and Pham 2010.
[34] Iwanow and Kirkpatrick 2009.
[35] Freund and Rocha 2011.
[36] Seker 2011.
[37] Portugal-Perez and Wilson 2011.
[38] Hoekman and Nicita 2011.

Other areas of regulation matter for trade performance. Economies with good contract enforcement tend to produce and export more customized products than those with poor contract enforcement.[39] Since production of high-quality output is a precondition for firms to become exporters, reforms that lower the cost of high-quality production increase the positive effect of trade reforms.[40] Moreover, reforms removing barriers to trade should be accompanied by other reforms, such as those making labor markets more flexible, in order to increase productivity and growth.[41]

Sound financial market infrastructure—including courts, creditor and insolvency laws, and credit and collateral registries—improves access to credit. Businesses worldwide identify access to credit as one of the main obstacles they face.[42] Good credit information systems and strong collateral laws help overcome this obstacle. An analysis of reforms improving collateral law in 12 transition economies concludes that they had a positive effect on the volume of bank lending.[43] Greater information sharing through credit bureaus is associated with higher bank profitability and lower bank risk. And stronger creditor rights and the existence of public or private credit registries are associated with a higher ratio of private credit to GDP.[44]

Country-specific studies confirm that efficient debt recovery and exit processes are key elements in determining credit conditions and in ensuring that less productive firms are either restructured or exit the market:

- In India the establishment of specialized debt recovery tribunals had a range of positive effects, including speeding up the resolution of debt recovery claims, allowing lenders to seize more collateral on defaulting loans, increasing the probability of repayment by 28% and reducing interest rates on loans by 1–2 percentage points.[45]
- Brazil's extensive bankruptcy reform in 2005 was associated with a 22% reduction in the cost of debt and a 39% increase in the aggregate level of credit.[46]

[39] Nunn 2007.
[40] Rauch 2010.
[41] Chang, Kaltani and Loayza 2009; Cuñat and Melitz 2007.

[42] http://www.enterprisesurveys.org
[43] Haselmann, Pistor and Vig 2010. The countries studied were Bulgaria, Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, the Slovak Republic, Slovenia and Ukraine.
[44] Djankov, McLiesh and Shleifer 2007; Houston and others 2010.
[45] Visaria 2009. In a follow-up study, von Lilienfeld-Toal, Mookherjee and Visaria (2012) found that the average effects identified by Visaria (2009) differ between wealthy and poor borrowers when the credit supply is inelastic (because of limits in such resources as funds, staff and information). In particular, they found that in the short term after the debt recovery tribunals are introduced, borrowers with less collateral may experience a reduction in access to credit, while those with more collateral may experience an increase. But the authors also point out that this short-term effect disappears over time as banks are able to increase their resources and the credit supply becomes elastic.
[46] Funchal 2008.

- Introducing streamlined mechanisms for reorganization has been shown to reduce the number of liquidations because it encourages more viable firms to opt for reorganization. Indeed, it reduced the number of liquidations by 14% in Colombia and by 8.4% in Belgium.[47] One important feature of Colombia's new system is that it better distinguishes between viable and nonviable firms, making it more likely that financially distressed but fundamentally viable firms will survive.
- Improving investor protections, developing financial markets and promoting more active markets for corporate control reduce the persistence of family-controlled firms over time, expanding opportunity for firms with more diversified capital structures.[48]

23. Should *Doing Business* follow different weighting and aggregation method depending on the country's stage of development?

Weighting and aggregating data depending on a country's stage of development could make sense, if there is a robust economic model that suggests that the indicators included in an index matter to lesser or greater degrees depending on the development stage of an economy. For example, the World Economic Forum's *Global Competitiveness Index* (GCI) assigns different weights to its different component indicators depending on a country's stage of development. The Forum's GCI builds on the work done by Porter[49] who divides countries and their respective industries into three broad categories: factor-driven, investment-driven, and innovation-driven. These categories, in turn, are highly correlated with rising economic prosperity, as captured by the growth of per capita income. The GCI weights were identified from a regression of GDP per capita run against each sub-index for a number of past years, allowing for different coefficients for each stage of development.[50]

To do the same for the *Doing Business* ease of doing business index would require identifying a clear theoretical and empirical link between the relative importance of different business regulatory dimensions captured by the *Doing Business* indicators and GDP per capita levels in a country. As of today, such a link has not been identified. This is not surprising, considering that the *Doing Business* indicators were developed to reflect the true costs that regulations represent for businesses. The appropriate dependent variable for an economic model with the *Doing Business* indicators as independent variables would therefore be one that uses some measure of firm performance. And, indeed, the different regulatory dimensions captured by the *Doing Business* indicators matter for firms in different degrees during their life cycle. The Starting a Business indicator matters in particular at the beginning of the lifecycle of a company; on the

[47] Giné and Love (2010) on Colombia; Dewaelheyns and Van Hulle (2008) on Belgium.
[48] Franks and others 2011.
[49] Porter, Michael. 1990. *The Competitive Advantage of Nations*, The Free Press.
[50] Sala-i-Martin, X. and E. V. Artadi, 2004. "The Global Competitiveness Index." The Global Competitiveness Report 2004–2005. Hampshire: Palgrave Macmillan. 51–80, Augusto Lopez-Claros, editor

other hand, indicators such as Registering Property, Protecting Investors, and Getting Credit are of more relevance during the expansion phase of a firm; and Employing Workers, Enforcing Contracts, Getting Electricity and Dealing with Construction Permits, Paying Taxes and Trading across Borders matter most when the firm is fully operating. Finally, the Resolving Insolvency indicator is most relevant during the end of a firm's lifecycle. However, it is not clear how to appropriately aggregate this to a country level analysis like the one done by *Doing Business*.

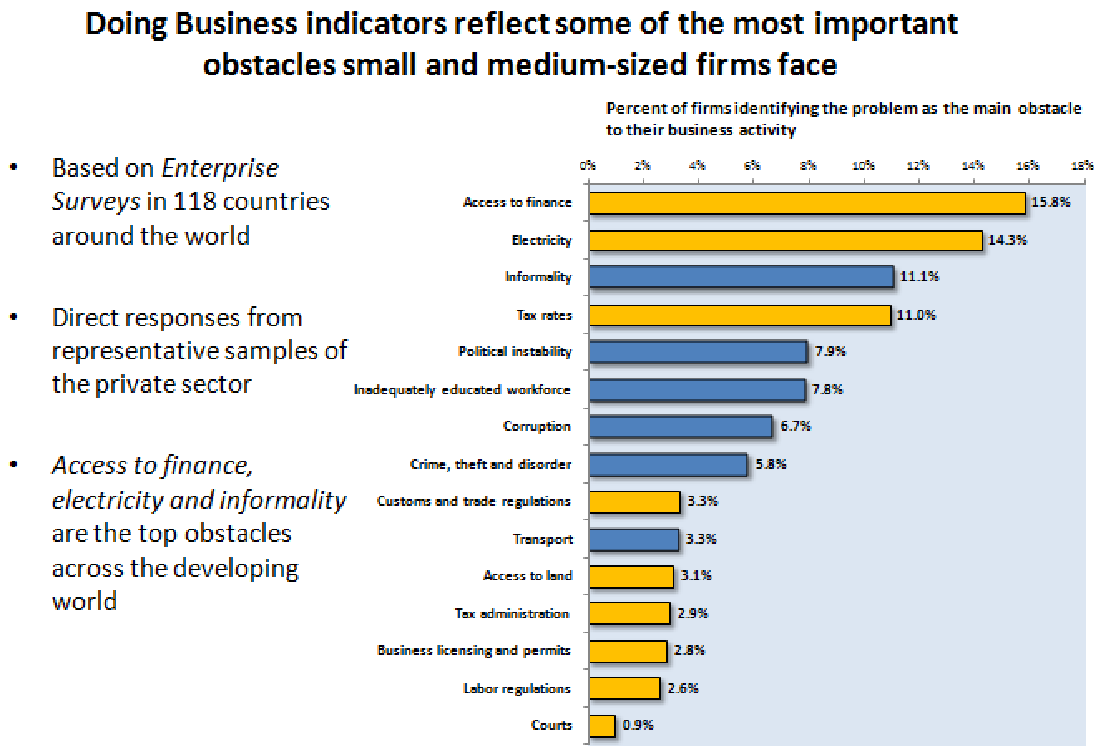
24. What criteria have guided the choice of the 11 *Doing Business* indicators?

In 2002, the World Bank Group published the World Development Report "Building Institutions for Markets." One of the background papers for the report created an index measuring the efficiency of different judicial systems and was authored by Simeon Djankov, together with researchers from Harvard.[51] During the same period, the same team of authors published the "Regulation of Entry" paper which became the basis of the methodology for the Starting a Business indicator. The research team wrote similar papers on courts, on labor regulation, credit regulation, and debt enforcement rules (all papers were subsequently published in academic journals in 2003, 2004, 2007, and 2008). In 2003, the first *Doing Business* report was published, covering at the time five indicators (Starting a Business, Getting Credit, Hiring and Firing Workers, Enforcing Contracts and Closing a Business). The methodology for these five indicators drew directly from these research papers, all of which had a focus on the role of legal rules affecting businesses.

Other indicators were added later: Registering Property, Dealing with Licenses (later renamed to Dealing with Construction Permits), Paying Taxes, Trading across Borders and Protecting Investors. The choice of indicators added was informed by enterprise surveys conducted in more than 100 countries which ask firms to rate what they consider the biggest obstacles to their business activity. Regulatory barriers such as access to finance, taxes rates and tax administration, access to land, business licensing and permits, labor regulations and courts are regularly cited among the most important business constraints that firms face (Figure 7).

[51] Djankov and others 2001.

Figure 7. Obstacles to SMEs



Source: Enterprise Surveys.

Except for the Registering Property and Dealing with Licenses indicators, the methodology for all additional indicators was based on academic papers. These papers established the importance of the legal rules measured for economic outcomes such as private credit as a percentage of GDP, foreign direct investment, market capitalization in stock exchanges and trade volumes. See http://www.doingbusiness.org/methodology for a complete list of the research papers supporting the *Doing Business* indicators.

Finally, the Getting Electricity indicator was specifically requested by the World Bank's Executive Board, whose members noted on a number of occasions during annual Board meetings that infrastructure was too important an issue—ranked second on the obstacles to firms in the case of energy infrastructure, see Figure 6—not to be included in the index. The Getting Electricity indicator was developed in 2007 and 2008 and subsequently published as a pilot in the annual publication, but was not included in the overall ranking until the *Doing Business 2012* report. In line with the practice for earlier indicators, a working paper assessing the usefulness of the indicator as a proxy for broader electricity constraints was written and presented at the International Conference on Economics and Development, Toulouse, January 2010, organized by the World Bank's research department (DEC) and the University of Toulouse. The paper is currently under revision and will be submitted to academic journals in 2013.

25. Is the existence of a minimum capital requirement desirable, particularly in developing countries?

The Starting a Business indicator of the *Doing Business* project was inspired by Hernando de Soto's study of entry regulation in Peru. In his book *The Other Path* (1987), de Soto showed that the prohibitively high cost of establishing a business in Peru denied economic opportunity to the poor. De Soto's research team followed all the necessary bureaucratic procedures required for setting up a one-employee garment factory in the outskirts of Lima. Two hundred and eighty-nine days and $1,231 later, the factory could legally start operations. In their seminal paper "The Regulation of Entry" Djankov et al. (2002)[52] later repeated the same exercise for 85 countries and found that countries with heavier regulation of entry have higher levels of corruption, suffer from larger unofficial economies and do not necessarily provide better quality public goods. The methodology for the Starting a Business indicator is based on this study and has been expanded over the years to 185 economies (see http://www.doingbusiness.org/methodology for a link to the paper).

The Starting a Business indicator is comprised of four sub-components:

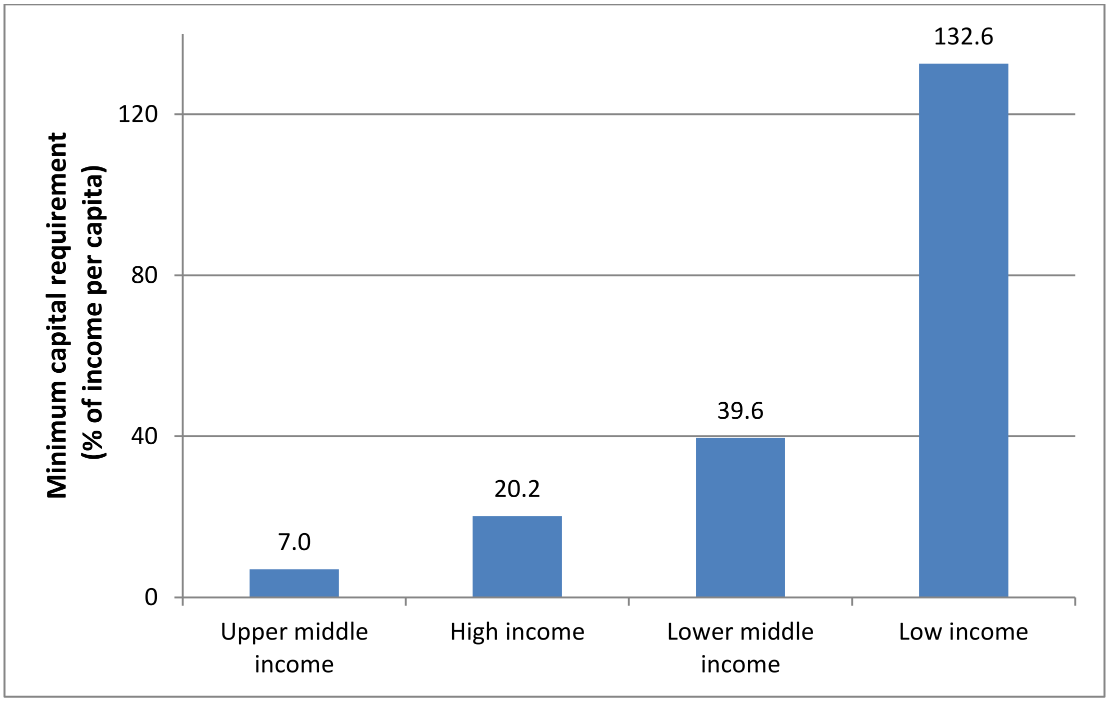
- the number of procedures
- the time (measured in calendar days)
- the costs (measured as a % of income per capita) associated with incorporating a small limited liability company with a simple manufacturing profile
- the paid-in minimum capital requirement (measured as a % of the income per capita)

The minimum capital requirement refers to the authorized share capital which must be invested by shareholders before business operations for a company can be commenced. For the purpose of the Starting a Business indicator, the minimum capital requirement recorded is the amount that an entrepreneur needs to deposit into a bank account or with a notary prior to company registration and/or in some cases up to three months following the incorporation. This amount is typically specified in the commercial code or the company law. The minimum capital requirement is recorded as zero if the law does not oblige entrepreneurs to deposit any specific amount of money to be able to register and run a small or medium-sized business.

Globally, 91 out of 185 economies still require entrepreneurs to put up a predetermined amount of capital before starting registration or licensing formalities. Of economies around the world, 39 have reduced or abolished their minimum capital requirement in the last seven years. Minimum capital requirements differ significantly across countries. Developed countries tend to request lower minimum capital than developing countries (Figure 8). Economies that originally introduced the requirement have long since removed it (France and the United Kingdom).

[52] Djankov and others 2002.

Figure 8. Minimum capital requirement by income



Source: Doing Business database.

The paid-in minimum capital requirement is included in the composition of the Starting a Business indicator because it is an important factor affecting the ability of entrepreneurs to start new firms. It can be a deterrent to new business formation, especially for entrepreneurs with little initial capital (for example, youth and women) and for which it can divert the capital that would otherwise be used for business operations. Indeed, research suggests that the paid-in capital requirement lowers entrepreneurship rates across the world.[53]

Regardless of the financial burden that the minimum capital requirement constitutes for a new company, one might argue that it serves to protect investors and consumers from new firms that have been set up in a careless fashion, which are financially not viable, and which might therefore exit the market soon after entering. Supporters of this argument claim that the minimum capital potentially enables prospective investors to think about investments more carefully. In the majority of cases, however, the paid-in minimum capital requirement stipulated by company laws is a fixed amount that does not take into account the specific economic activity or risk undertaken by the firm. A small manufacturing company with low initial capital and low commercial risks does not represent the same risk as a big industrial firm (high initial capital) in a volatile market. Yet both face the same minimum capital requirement. In addition, investors generally do not look at whether a firm has paid its minimum capital as a measure of risk;

[53] van Stel, Storey and Thurik 2007. See also Blanchflower, Oswald and Stutzer 2001.

instead, they refer to firms' income statements, business plans, and other more representative indicators.

Another criticism raised is that the minimum capital requirement is not a meaningful proxy for the financial situation of a company, as long as it ignores the liabilities of the company. At the very least it should be levied as a ratio (capital/liabilities) similar to capital requirements in the banking industry.[54] When creditors make an investment decision, they do not look at the paid-in minimum capital but use a wide range of protection instruments through the company law, insolvency laws or specific negotiated contracts to mitigate risks. For instance, Hong Kong SAR (China) outlines provisions on solvency safeguards in its company act, and does not require a specific amount of paid-in minimum capital.

And finally, the minimum capital requirement has little practical value in most countries, as the laws allow investors or owners of a company to immediately withdraw the money from the bank after obtaining a business license. For instance, in Estonia, Portugal, Luxembourg, and Thailand, entrepreneurs can withdraw the start-up capital immediately after incorporating a business.

26. Does the Dealing with Construction Permits indicator take into account safety issues? What about environmental conditions?

To measure the ease of dealing with construction permits, *Doing Business* records the procedures, time and cost required for a small to medium-size business to obtain all the necessary approvals to build a simple commercial warehouse and connect it to water, sewage, and a fixed telephone line. The warehouse used in the case study is a small and simple storage facility (1,300 square meters) of non-hazardous goods, located in an area where its environmental impact will be very low (i.e., not located next to a water source or a protected area). The case study assumptions were designed so that safety issues and environmental conditions are not be a major concern at all.

While the Dealing with Construction Permits indicator does not directly measure environmental or safety standards, it does track the implementation of risk-based regulations that try to find a balance between efficiency, safety and environmental safeguards. For example, not all building projects are associated with the same social, cultural, economic, or environmental risks. The construction of a hospital or skyscraper cannot be compared with the construction of a small storage warehouse. Efficient governments have implemented rigorous yet differentiated construction permitting processes to treat buildings according to their risk level and location.

[54] Alonso Ledesma 2007.

Simple or low-risk buildings, like the one stipulated by *Doing Business*, require less documentation and controls than more complex structures and can be approved faster. This saves time for both entrepreneurs and authorities and allows them to direct their efforts and resources more efficiently to supervise more complex structures. Worldwide, the main criteria used to classify a construction project by its potential risk are based on the building's use, location, and size. Today, 86 economies have a risk-differentiated approach, including the 17 that established one in the past eight years. Economies such as those of Singapore and New Zealand lead the way in this area, where less and more streamlined procedures do not imply lower safety standards.

27. Can legislative changes be reflected in the indicators without any changes on the ground?

Doing Business encompasses two types of indicators: legal scoring indicators, such as those on Protecting Investors and Getting Credit/legal rights, and "time and motion indicators," such as those on Starting a Business, Registering Property, Getting Electricity and Dealing with Construction Permits. In the legal indicators, *Doing Business* gives higher scores for stronger property rights, for example stricter disclosure requirements in related-party transactions. The "time and motion" indicators measure the efficiency and complexity in achieving a regulatory goal by recording the procedures, time, and cost of completing a transaction in accordance with all relevant regulations and current practices, from the point of view of the entrepreneur.

In the legal scoring indicators, the indicators are updated once the relevant new legislation is passed and put into force. In the time and motion indicators, there needs to be a change in how the process is implemented for the indicator to be affected. For instance, since August of 2011, it is legal in Ukraine to register a firm electronically. However, the systems are not yet in place to make that possible. Therefore, in the *Doing Business* dataset, the non-electronic process is still counted. In Moscow, according to the law, the process for obtaining a construction permit has changed for over a year now, in theory reducing the number of procedures needed. However, in practice most of the procedures changed by the new law are still being implemented according to the old system. Therefore, *Doing Business* records will count the amended list of procedures when there is credible evidence that these have become realities on the ground, as perceived by those firms which have to comply with construction permitting regulations.

28. Does *Doing Business* have a deregulation bias? In fact, is regulation not an essential component of a good society?

Doing Business is not about eliminating the role of the state in private sector development. On the contrary, *Doing Business* recognizes that the state has a fundamental role in private sector development. A key premise of *Doing Business* is that economic activity requires good rules. These include rules that establish and clarify property rights and reduce the cost of resolving disputes that increase the predictability of economic interactions, and provide contractual partners with core protections against abuse. The objective is to have regulations designed to be efficient, accessible to all who use them, and simple in their implementation.

Accordingly, some *Doing Business* indicators give a higher score for more regulation, such as stricter disclosure requirements in related-party transactions for the Protecting Investors indicators. In indicators such as Dealing with Construction Permits, economies which have no regulations or which do not apply them are considered “no practice” and automatically receive the lowest score, thus penalizing them for not having appropriate regulation.[55] Other areas give a higher score for a simplified way of applying regulation with lower compliance cost for firms—for example, if firms can comply with business start-up formalities in a one-stop shop or through a single online filing portal. And finally, the report recognizes those countries that apply a risk-based approach to regulation as a way to address environmental and social concerns—that is, by imposing heightened requirements for activities which impose a higher risk to the population and less of a regulatory burden on lower-risk activities.

A significant number of the top 30 economies ranked in *Doing Business*—Canada, Norway, Sweden, Denmark, New Zealand, Korea, Germany, Japan—come from a tradition where government presence in the economy has been quite prominent, including through the laying out of rules to regulate different dimensions of the activities of the private sector. However, all these economies have an excellent performance on the *Doing Business* indicators and other international data sets capturing various dimensions of competitiveness. The top performing economies in the *Doing Business* ranking are therefore not countries with no regulation, but rather are those in which governments have managed to create rules that facilitate interactions in the marketplace without needlessly hindering the development of the private sector. Ultimately, *Doing Business* is about smart regulations which only a well-functioning state can provide.

[55] This happens, for example, in the case of “Dealing with Construction Permits” in Eritrea, as noted earlier.

29. Does *Doing Business* have an academic advisory board?

The *Doing Business* indicators were developed in partnership with university professors. Once the indicators were well established, there was a need to create an advisory group to continue the quality control provided by the earlier interactions with academics.

In 2010, the Indicator Advisory Group was established with the purpose of:

1. Reviewing and advising on methodological questions arising from existing data sets
2. Reviewing and advising on new indicators and substantial modifications of existing indicators
3. Reviewing and advising on the use of indicators in rankings and other data synthesis/comparison tools
4. Informing about new and relevant research that can affect the scope, design and implementation of finance and private sector development indicators.

The scope of this group goes beyond *Doing Business* and affects other indicators produced within the Global Indicators and Analysis department.

The group has the following members:

- Tim Besley, Kuwait Professor of Economics and Political Science; Director of STICERD and Director of the MPA, London School of Economics
- Robert D. Cooter, Co-Director, Law and Economics Program, Herman F. Selvin Professor of Law, University of California at Berkeley
- Asli Demirguc-Kunt, Director, Development Policy Department, Development Economics Vice Presidency, The World Bank
- Caroline Freund, Chief Economist, MNA, The World Bank
- Aart Kraay, Lead Economist, Development & Research Group, Development Economics Vice Presidency, The World Bank
- Ralf Michaels, Professor of Law, Duke University
- Roger Tourangeau, Research Professor, University of Michigan Survey Research Center & University of Maryland Joint Program in Survey Methodology (JSPM)
- Luigi Zingales, Robert C. McCormack Professor of Entrepreneurship and Finance and the David G. Booth Faculty Fellow, University of Chicago

The Indicator Advisory Group so far has provided guidance on a range of issues, including, for instance, input on the Getting Electricity indicator, on the *Doing Business* aggregation methods including the distance to the frontier measure and on other indicator sets produced by Global Indicators and Analysis, such as, *Women, Business and the Law*.

30. What are the benefits of the *Subnational Doing Busine*ss reports?

As with any international dataset the *Doing Business* report has methodological limitations.[56] One of these is the focus on the largest commercial city of the country. To address this specific limitation, the Global Indicators and Analysis department conducts subnational studies at the request of client governments. *Subnational Doing Business* (SNDB) Reports expand the indicators beyond the largest business city in an economy. They capture local differences in regulations or in the implementation of national regulations across cities within an economy (as in Mexico) or region (as in South East Europe). Moreover, SNDB produces regional disaggregated data on business regulations in locations where information is either nonexistent or where national data results are insufficient to fully assess the regulatory environment. Projects are undertaken at the request of governments.

Subnational Doing Business has proven to be a strong motivator for regulatory reform, because by comparing different locations in the same country sharing the same legal and regulatory framework, local officials find it hard to explain why it is more difficult to do business in their jurisdiction than in their neighbor's. In addition, the good practices identified can be replicated more easily than those in countries with different legal traditions and institutions. *Subnational Doing Business* has motivated a large number of regulatory improvements, as documented in countries where at least two benchmarking rounds have been completed: as of December 2012, a total of 343 reforms were reported in Colombia, India, Indonesia, Kenya, Mexico (4 reports), Nigeria, Pakistan, the Philippines, Russia, South East Europe (six economies), and the United Arab Emirates.

Subnational Doing Business produces regional disaggregated data on business regulations in locations where information is either inexistent or where national data results are insufficient to fully assess the regulatory environment. However, SNDB is more than a data collection exercise, because of its unique delivery model that motivates reforms:

- The *Subnational Doing Business* delivery model includes multiple interactions with government partners at the national, regional and municipal levels, which results in local ownership and capacity building;
- Data produced is comparable across locations in the same country and internationally, providing locations with the opportunity to compete locally and globally;
- By pointing out the good practices that exist in some locations but not elsewhere in the country, policymakers realize that the country's potential could be significantly higher than the ranking captured in the global *Doing Business* report suggests. This creates a space for discussing regulatory reform across different levels of government and provides opportunities for local governments and agencies to learn from one another.

[56] These limitations have been clearly stated in the report over the years in the 'About *Doing Business*' chapter since 2009.

- *Subnational Doing Business* indicators are actionable, because local governments are provided with a roadmap that pinpoints bottlenecks in their jurisdiction, identifying opportunities to reform. In addition, the reports provide policy recommendations and good practice examples that are easy to replicate.
- By combining the media appeal of *Doing Business* with strong client engagement, competition and cooperation are triggered, motivating improvements from peer-to-peer learning.

Experience from SNDBs suggests that collecting data for different cities in bigger countries will yield some variation in results but not for all *Doing Business* indicators. Some *Doing Business* indicators or key components of indicators, such as Protecting Investors, Legal Rights, Credit Bureau, Employing Workers draw exclusively on legal provisions that apply uniformly at the national level. Governments requesting SNDBs have also shown little interest in Resolving Insolvency, Getting Credit, Paying Taxes and Trading across Borders, for instance (See table 9).

Table 9: Selected *Subnational Doing Business* Reports – *Doing Business* indicators covered by report

Sub-national report	Starting a Business	Dealing with Construc-tion Permits	Getting Elec-tricity	Registe-ring Property	Getting Credit	Protec-ting Inves-tors	Paying Taxes	Trading Across Borders	Enfor-cing Con-tracts	Res-olving Insol-vency
Hargeisa 2013	√	√	√	√	√	√	√	√	√	√
Italy 2013	√	√		√				√	√	
Indonesia 2012	√	√		√						
Kenya 2012	√	√		√					√	
Mexico 2012	√	√		√					√	
Russia 2012	√	√	√	√						
United Arab Emirates 2012	√	√		√					√	
Juba 2011	√	√		√	√	√	√	√	√	√
Philippines 2011	√	√		√						
South East Europe 2011	√	√		√					√	
Colombia 2010	√	√		√			√	√	√	
Indonesia 2010	√	√		√						

Kenya 2010	√	√		√					√	
Nigeria 2010	√	√		√					√	
Pakistan 2010	√	√		√			√	√	√	
Zanzibar 2010	√	√		√	√	√	√	√	√	√
Abu Dhabi 2009	√	√		√	√	√	√	√	√	√
India 2009	√	√		√			√	√	√	√
Mexico 2009	√	√		√					√	
Russia 2009	√	√		√				√		
China 2008	√			√	√				√	
Colombia 2008	√			√			√	√	√	
Egypt 2008	√	√		√						
Morocco 2008	√	√		√					√	
Nigeria 2008	√	√		√					√	
Philippines 2008	√	√		√						
South East Europe 2008	√	√		√					√	
Mexico 2007	√			√	√				√	
South Asia 2007	√	√		√	√	√	√	√	√	√
Brazil 2006	√			√	√		√		√	
Mexico 2006	√			√	√				√	

Note: The Getting Electricity indicator has been part of the *Doing Business* dataset only since 2011. For this reason it has so far only been included in two sub-national studies – Russia 2012 and Hargeisa 2013. Hargeisa 2013, Juba 2011, Zanzibar 2010 and Abu Dhabi 2009 are city profiles rather than sub-national studies. For this reason, all *Doing Business* indicators rather than just a selected few were included in those studies.

For the four indicators that are most frequently included in SNDB reports, the variation of the data across cities tends to be higher for the time and cost estimates embedded in these indicators. The table below shows the mean and standard deviation for the data for 11 sub-national studies. Sizable standard deviations from the mean are marked in yellow in the table below (Table 14). Taken together out of a total of 31 sub-indicators included in the aggregate *Doing Business* ranking, 7[57] would not show a change in results were more locations to be included in the data collection. For another 4 sub-indicators there would be variation but it is not likely to be significant (procedures for Starting a Business, Dealing with Construction Permit, Getting Electricity and Registering Property). This means one third of the data comprising the index would yield very little or no variation in a multi-city approach to collecting *Doing Business* data.

[57] These 7 sub-indicators are the minimum capital requirement in the Starting a Business indicator, the number of procedures in the Enforcing Contracts indicator, the Legal Rights and Credit Bureau sub-indicators of the Access to Credit indicator and the three sub-indicators of the Protecting Investors indicator.

However, with two thirds of data likely to change, one could argue that the addition of more cities in the data could add important information to the *Doing Business* exercise.

The *Doing Business* team has looked into the possibility of adding a multi-city angle to the yearly Ease of Doing Business ranking. An important consideration is to identify an appropriate selection criterion for the inclusion of additional cities. A number of options have been examined. For instance, one could include one additional city for countries with populations above a certain threshold. An additional city could be included for example for economies with a population of more than 100 million inhabitants. This would lead to the inclusion of another 11 cities to the sample. But it is possible to use other criteria, such as to link additional cities to fixed increments in the number of inhabitants or some other measure of country size. Depending on the criteria used and with the aim of particularly capturing some of the regional diversity in business environment conditions in large countries, the number of cities covered could easily rise by several dozen.

The additional resources needed to expand city coverage beyond the largest business city could, therefore, be significant. Beyond budget considerations, however, there is no reason to assume that the data quality would suffer if a multi-city approach was to be pursued. The existence of SNDB reports suggests that the methodology can easily be replicated if the relevant resources are available.

Table 10: Mean and Standard Deviation for Starting a Business sub-indicators across cities

		Procedures (number)		Time (days)		Cost (% of income per capita)		Paid-in minimum capital requirement (% of income per capita)	
Sub-national study	**Number of cities covered**	**Mean**	**Std. Dev.**	**Mean**	**Std. Dev.**	**Mean**	**Std. Dev.**	**Mean**	**Std. Dev.**
Philippines 2011	22	18.32	2.19	33.32	6.50	23.79	5.23	6.00	0.0
Indonesia 2010	14	9.43	1.02	50.29	7.22	30.70	3.41	59.71	-
Pakistan 2010	13	10.0	-	20.8	2.2	20.2	5.9	-	-
Nigeria 2010	37	8.6	1.2	35.6	6.2	77.7	14.2	-	-
Colombia 2010	21	10.3	2.0	19.7	10.0	16.3	3.4	-	-
Kenya 2010	11	12.0	-	67.3	14.6	49.0	7.4	-	-
India 2009	17	12.4	0.7	34.7	3.4	47.2	9.0	-	-

Mexico 2009	32	8.5	0.7	24.3	10.5	14.4	5.5	11.0	0.0
Philippines 2008	21	18.2	2.5	34.6	5.6	26.7	7.0	6.9	-
China 2008	30	13.6	0.7	41.1	6.6	11.0	5.3	273.7	89.9
Egypt 2008	3	7.7	0.6	12.7	3.2	28.6	-	12.9	0.0

Note: The table above shows only those sub-national studies that were available at the time when the team considered a multi-city approach for *Doing Business* in 2011.

To further explore variations in business regulation within economies, the team collected data on all 10 indicator sets included in the ease of doing business ranking in an additional city in 3 large economies for the *Doing Business 2012* report: in Rio de Janeiro in Brazil (in addition to São Paulo), Beijing in China (in addition to Shanghai) and St. Petersburg in the Russian Federation (in addition to Moscow). The results showed no variation between cities within each economy in areas governed by laws or regulations such as the civil procedure code, listing rules for companies and incorporation rules. For rules governing secured transactions, for example, entrepreneurs in Brazil all refer to the Civil Code of 2002, those in China to the Property Rights Law of 2007 and those in Russia to the Civil Code of 1994 and Law on Pledge of 1992. But the efficiency of regulatory processes—such as starting a business or dealing with construction permits—and that of institutions differed across cities, because of differences either in local regulations or in the capacity of institutions to respond to local demand. In Russia, dealing with construction permits is more complex in Moscow than in St. Petersburg. In Brazil, starting a business, dealing with construction permits and getting electricity take less time in Rio de Janeiro than in the larger São Paulo. But property registration is slightly more efficient in São Paulo than in Rio de Janeiro. This is thanks to São Paulo's digitized cadastre.

In all 3 economies the number of taxes and contributions varies between cities. In China businesses in both cities have to comply with 3 state-administered taxes (value added tax, corporate tax and business tax). But while companies in Beijing need to comply with 6 locally administered taxes, those in Shanghai must comply with 7. Distance to the port plays a role in the time to import and export. The cities housing a main port—Rio de Janeiro, Shanghai and St. Petersburg—have faster and cheaper inland transport than those where entrepreneurs need to hire someone to go to another city to ship or receive their cargo— São Paulo (to Santos), Beijing (to Tianjin) and Moscow (to St. Petersburg).

Doing Business does not follow a "one size fits all" approach. *Doing Business* uses consistently the same methodology across countries to ensure that the data is internationally comparable. However, this does not imply that the policy recommendations coming out of the indicators are the same for all countries. There are different ways of having, for instance, an efficient and effective system for firm registration. The list of 10 countries with the most efficient starting a business systems includes Australia, Macedonia and Rwanda. These are all very different countries that followed diverse policies to reach this level of efficiency.

31. Are countries focusing on *Doing Business* type of reforms to the detriment of other potentially more important reforms in other areas?

Many countries that engage in reforms as measured by the *Doing Business* report do so as part of a broader reform agenda. The table below illustrates that the 16 countries that have registered the biggest improvements in the *Doing Business* indicators since 2006 (*Doing Business* Report 2007) have also improved significantly on other measures that capture government reforms such as the World Bank's Country Policy and Institutional Assessments (CPIA), Transparency International's Corruption Perceptions Index and the Government Effectiveness indicators of the Worldwide Governance indicators (Table 11). A positive relationship exists not only for the countries that recorded the biggest improvements over the past 6 years on the "Distance to Frontier", but for the entire data set (Figure 9). These indicators were chosen here because improvements in these indicators capture active changes in government policy and administration rather than improvements in country's performance that might be due to exogenous factors.[58]

Table 11. Countries registering most significant improvements on *Doing Business* indicators since 2006 (*Doing Business 2007* report)

	Improvement on *Doing Business* indicators (as % point improvement on the distance to frontier measure since 2006)	Improvement on the CPIA rating between 2006 and 2011*	Improvement on Transparency International's Corruption Perceptions Index between 2006 and 2012**	Improvement on the Government Effectiveness Index of the Worldwide Governance Indicators between 2006 and 2012
Rwanda	65%	from 3.6 to 3.8	from 25 to 57	from -0.3 to 0.1
Belarus	51%	n/a	from 21 to 33	from -1.2 to -1.1
Burkina Faso	44%	from 3.7 to 3.8	from 32 to 41	from -0.8 to -0.5
Liberia	43%	n/a	n/a	from -1.2 to -1.2
Tajikistan	41%	from 3.3 to 3.3	from 22 to 24	from -1 to -0.9
Burundi	38%	from 3.1 to 3.1	from 24 to 21	from -1.1 to -1.1
Sierra Leone	37%	from 3.2 to 3.3	from 22 to 33	from -1.2 to -1.2
Mali	36%	from 3.7 to 3.6	from 28 to 37	from -0.7 to -0.8
Egypt, Arab Rep.	36%	n/a	from 33 to 35	from -0.5 to -0.6
Guinea-Bissau	34%	from 2.7 to 2.9	n/a	from -1.1 to 1

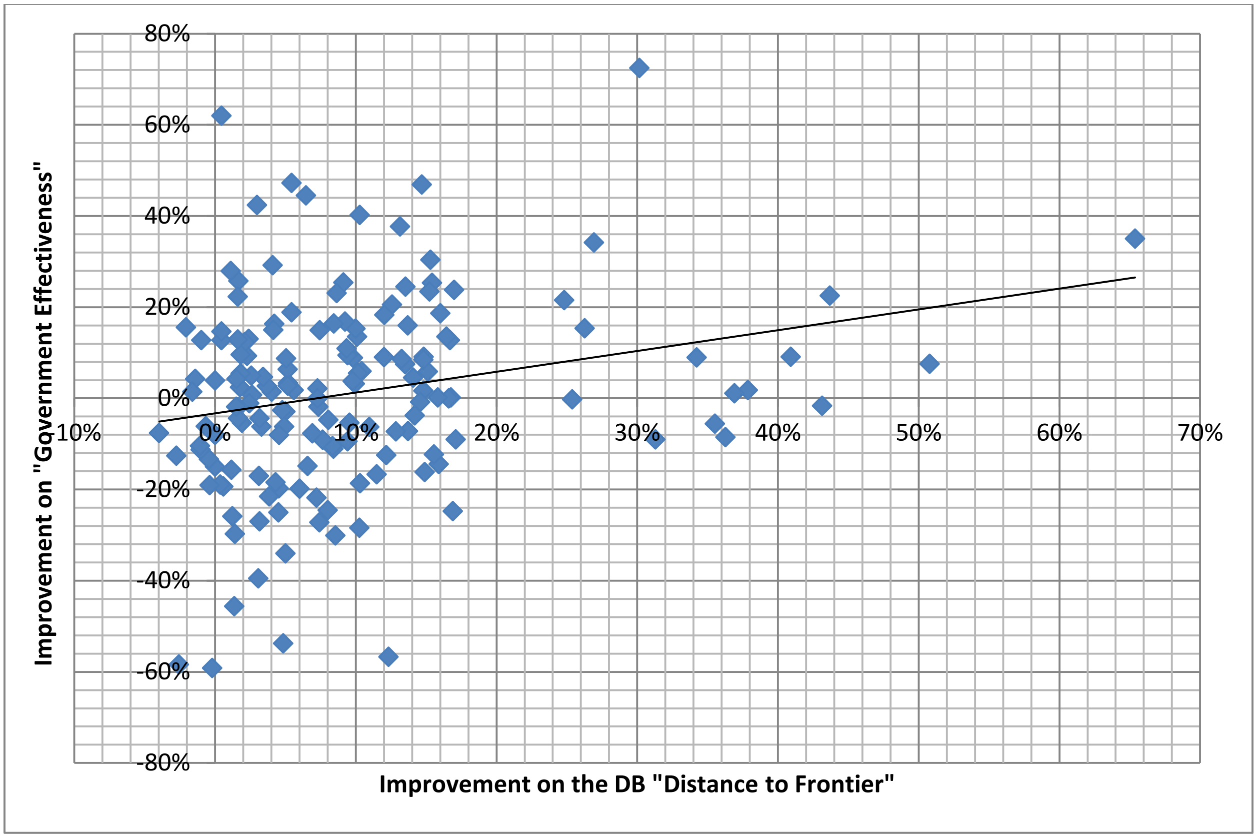
[58] For example, a country's GDP might increase or contract strongly due to higher oil prices.

	Improvement on *Doing Business* indicators (as % point improvement on the distance to frontier measure since 2006)	Improvement on the CPIA rating between 2006 and 2011*	Improvement on Transparency International's Corruption Perceptions Index between 2006 and 2012**	Improvement on the Government Effectiveness Index of the Worldwide Governance Indicators between 2006 and 2012
Timor-Leste	31%	from 2.8 to 3.2	from 26 to 36	from -1 to -1.1
Georgia	30%	from 4.1 to 4.4	from 28 to 56	from -0.2 to 0.5
Colombia	27%	n/a	from 39 to 39	from -0.1 to 0.2
Kyrgyz Republic	26%	from 3.7 to 3.6	from 22 to 26	from -0.8 to -0.6
Macedonia, FYR	25%	n/a	from 27 to 46	from -0.1 to -0.1
Cambodia	25%	from 3.1 to 3.4	from 21 to 24	from -1 to -0.7

*For 2012, CPIA ratings are not yet available. CPIA ratings capture improvements on a wide range of institutions and policies such as monetary and exchange rate policies, fiscal policy, debt policy, trade, financial sector, gender and public sector management. The CPIA ratings also capture institutions related to *Doing Business*. The index was therefore recalculated to exclude this component.

**Index values for Transparency International's Corruption Perceptions Index for 2012 were adjusted to be comparable with the values for 2006. In 2006, only 164 countries were included in the index; in 2012 the number was 176. The index value for 2012 was therefore multiplied with the ratio 176/164 to make the index numbers comparable.

Figure 9. There is a positive relationship between improvements that countries have made on the “Distance to Frontier” measure and improvements on the “Government Effectiveness” indicators



Note: Similar results were obtained for the relationship between improvement’s on the “Distance to Frontier” measure and the other two variables (Corruption Perceptions Index and CPIA rating).

The latest *Doing Business* report highlights three countries that used *Doing Business* as a tool for a bigger reform agenda within the private sector arena. Those countries are: Colombia, Latvia, and Rwanda.

Over the past several decades, Colombia has pursued a broad range of structural and institutional reforms. The emphasis has shifted over the years, reflecting the priorities of different administrations and the perceived needs of the economy. In the 1980s and early 1990s, much of the focus was on macroeconomic management. As progress was made in laying a firm foundation of macroeconomic stability, the focus shifted to other areas. The government gave particular emphasis to policies and institutions seen as central to enhancing productivity and growth and boosting the country’s competitiveness. As part of this, it set in motion reforms aimed at improving the regulatory framework and the rules underpinning private sector activity. The *Doing Business* data was used as one of the basis for shaping part of these reforms, complementing other types of reforms and not crowding out reforms in other areas.

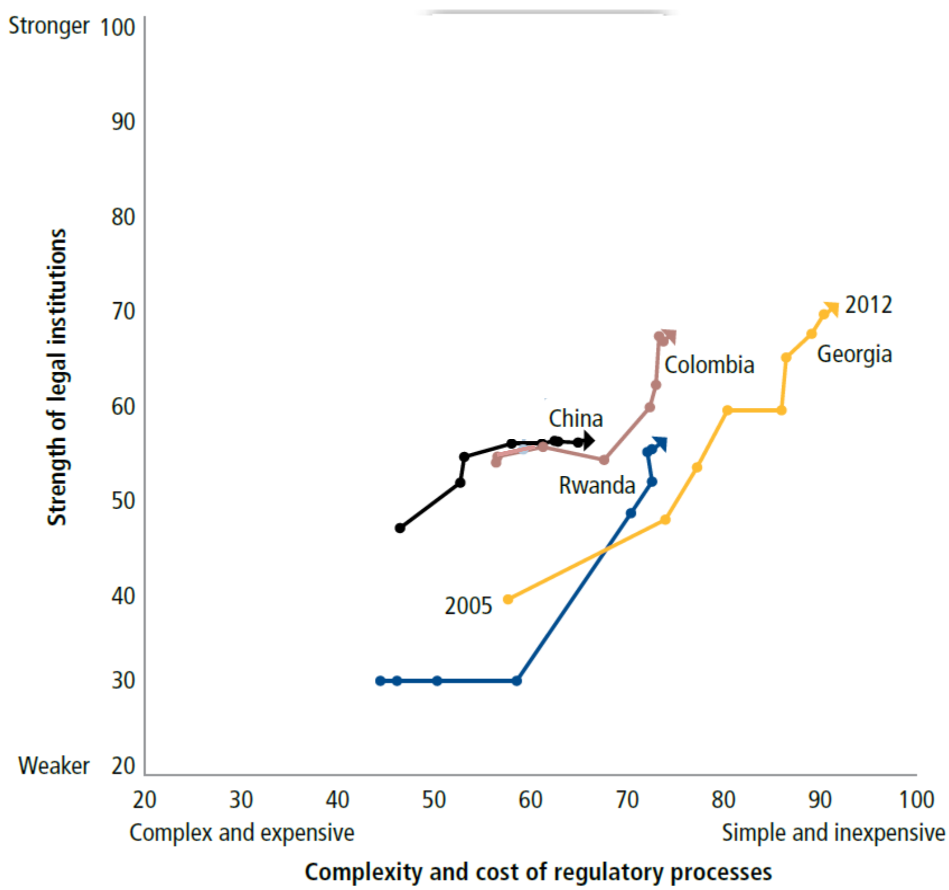
We have seen no evidence that *Doing Business* is crowding out reforms in other areas, such as health and education, or running a responsible fiscal policy. Increasingly, as in the case of Colombia, we see governments recognizing that improving competitiveness and creating a better climate for private sector activity will require actions on a broad front that will include addressing many factors and policies, well beyond the area of business regulation as captured by the *Doing Business* indicators. An interesting recent example is provided by Greece. The authorities, in the middle of a serious macroeconomic crisis which has greatly put at risk their continued membership in the euro area, have decided to give high priority to the elimination of long standing, archaic, numbingly complex and costly regulations, that have shackled the private sector and created substantial bottlenecks for economic activity. They have approached the World Bank Group for technical assistance on investment climate issues and the *Doing Business* indicators will be an important component of these efforts. At no time during the discussions did the authorities take the view that by focusing attention on the sorts of issues tracked by the *Doing Business* indicators, they would have to give up remaining focused on a broad range of other issues of equally critical importance for the overarching goal of returning the Greek economy to a path of rapid economic growth.

In several years of engagement with authorities in a large number of countries, the *Doing Business* team has not seen cases where the binding constraint to, say, improvements in tax administration or contract enforcement was the feverish pace of reforms elsewhere. Increasingly, the opposite seems to be the case, where governments recognize the mutually reinforcing synergies associated with multifaceted reforms across a broad range of areas. In any case, one distinct advantage of *Doing Business* is that the indicators straddle a large number of government departments, including, typically, the Ministries of Justice, Commerce, Industry, Finance, Trade, Energy, to name just a few, meaning that the administrative burden of reforms is more equitably shared.

32. What is the right reform path and how does it differ across countries?

The *Doing Business* report does not promote any particular business regulatory reform path as the right one for each country. Through its analysis, the *Doing Business* report merely identifies the different reform paths countries have chosen. There is some evidence, for instance, that many countries have opted for tackling first those reforms that involved dealing with the complexity and cost of procedures, which are embedded in some of the time and motion *Doing Business* indicators, such as Starting a Business, Trading across Borders, Registering Property, and so on. Many of the decisions needed to make effective these reforms may be under the direct purview of the authorities and may be implemented without the need to amend substantial pieces of legislation, such as the bankruptcy law or the laws that underpin the regime for investor protections. Rwanda and Colombia, for instance, are examples of countries that have adopted reform paths of that nature, doing the relatively easier things first and then, after a few years, moving to the more difficult and time-consuming reforms, with a bearing on the strength of legal institutions. But there are other paths as well. Georgia and China have tackled both types of reforms more or less simultaneously (see Figure 10). Clearly the approaches adopted vary across countries and largely reflect government priorities, political constraints, the strength of vested interests, technical considerations, and so on. *Doing Business* delivers the data and, as needed, is ready to discuss with interested parties best practices across the world, to guide a more informed discussion of priorities, but it has not nor does it intend to prescribe a particular reform path.

Figure 10. Different economies have followed a variety of regulatory reform paths



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