Timothy Besley

Law, regulation, and the business climate: the nature and influence of the World Bank Doing Business project

Article (Published version)
(Refereed)

Original citation:
Besley, Timothy (2015) *Law, regulation, and the business climate: the nature and influence of the World Bank Doing Business project.* Journal of Economic Perspectives, 29 (3). pp. 99-120. ISSN 0895-3309

DOI: 10.1257/jep.29.3.99

Journal of Economic Perspectives—Volume 29, Number 3—Summer 2015—Pages 99–120

Law, Regulation, and the Business Climate: The Nature and Influence of the World Bank Doing Business Project†

Timothy Besley

The importance of a well-functioning legal and regulatory system in creating an effective market economy is now widely accepted. After all, a poor contracting and regulatory environment can raise the cost of doing business with knock-on effects to employment, output, investment, productivity, and living standards. But how to measure or even to conceptualize differences in the business climate is far from settled. Should the focus be on a few specific indicators or many? Can whatever indicators are chosen be usefully compared across time and countries? Can such data be updated in a timely way as policy reforms occur?

One flagship project that tries to measure the environment in which businesses operate in countries across the world is the World Bank's Doing Business project, which was launched in 2002. At its core, this project gathers quantitative data to compare regulations faced by small and medium-size enterprises across economies and over time. The centerpiece of the project is the annual Doing Business report. It was first published in 2003 with five sets of indicators for 133 economies, and currently includes 11 sets of indicators for 189 economies. The report includes a table that ranks each country in the world according to its scores across the indicators.

The Doing Business project has become a major resource for academics, journalists, and policymakers. The project also enjoys a high public profile with close to ten million hits on its website each year, making it one of the most prominent knowledge products produced by the World Bank. When Narendra Modi was elected Prime Minister of India, he explicitly targeted achieving 50th place in the ranking as

■ *Timothy Besley is School Professor of Economics and Political Science, London School of Economics, London, United Kingdom and W. Arthur Lewis Professor of Development Economics. His email address is t.besley@lse.ac.uk.*

† To access the Appendix, Data Appendix, and disclosure statement, visit
http://dx.doi.org/10.1257/jep.29.3.99 doi=10.1257/jep.29.3.99

a benchmark for his administration—which would mean an improvement of almost 100 places compared to India's recent rankings (for example, Buerkle 2015). In 2012 Russian President Vladimir Putin set the goal of improving its Doing Business ranking to twentieth by 2018 (as reported in Adelaja 2012). Many countries are keen to promote their achievements in moving up the rankings in trying to attract investors, which is acknowledged in government export promotion strategies. For example, the UK government mentions Peru's ranking of 43 on "ease of doing business" prominently in its assessment of its business climate (UK Trade & Investment 2014). The project has passed from being a data source and research tool to playing a role in the political economy of development policy.

Leading academic economists have been involved in the Doing Business report from the start, both on the design of indicators and in using the results in research, and so in general terms, the report reflects the broad direction of mainstream thinking in development economics. Thus, it is now common to talk about the institutional underpinnings of development and the quality of the state in supporting development (for example, Besley and Persson 2011; Acemoglu and Robinson 2012). The Doing Business report collects data for a terrain over which there had been only scant knowledge previously, and so it is no surprise that academic researchers and policy analysts have taken the data to heart. Since 2003, over 2,000 research articles have been published in peer-reviewed academic journals using this data, with more than 5,000 working papers being posted online.

With such interest, it's no surprise that the Doing Business report has come under intense scrutiny. In 2012, following discussions by its board, the World Bank commissioned an independent review to evaluate the project (see http://www.dbrpanel.org/), on which I served as a member. In broad terms, the Doing Business report has been criticized for the way in which the data are collected and whether they reflect the business and regulatory environment accurately. Concerns were raised about whether the construction of the survey fostered a "deregulation bias." A measure of labor market regulation was a particular focus of concern, although this measure had already been removed from the set of measures used to determine aggregate rankings. Particular attention has focused on whether it is valid to collect the separate rankings into an aggregate ranking. A number of countries objected to being ranked at all.

Of course, alongside the specifics of the Doing Business report data, there are the usual concerns about the use of data that permeate empirical research in economics. Some researchers have used the data as a right-hand-side variable to "explain" outcomes of interest. Others put the data on the left-hand-side and ask how politics and institutions influence the business climate. In all cases, the usual concerns apply as to what inferences about causality can be drawn from such exercises. There is also a concern about the mapping from the Doing Business indicators to the conceptual categories that economic theory suggests ought to be important. Because so many researchers appear to equate "empirical evidence" with interpreting regression coefficients, this point merits discussion.

In the next section of this paper, I will describe how the Doing Business project works and illustrate its modus operandi with some of the key findings of the 2015 report. I address what is valuable about the project before turning to the criticisms of it. I then discuss some wider political economy issues illustrated by the report.

The main message of the paper is that, even with all of its imperfections, data collection of the kind undertaken by the Doing Business project is an integral part of the political economy of policymaking. The indicators try to get at features of the policy climate that many economists have been arguing are vital to economic progress but where no internationally comparable data was previously available. The story of the Doing Business project is one where a particular worldview can become influential and the impact of economic ideas enhanced through the collection of data.

How the Doing Business Project Works

It is useful to begin with a broad understanding of how the Doing Business project works. The data collection surveys law firms, with around 10,000 questionnaires being fielded across the participating countries. Data are collected in a questionnaire concerning 11 specific topics:

1) *Starting a Business* is a measure of the procedures, time, cost, and minimum capital required to start a new business.
2) *Dealing with Construction Permits* is a measure of the procedures, time, and cost required to build a warehouse.
3) *Getting Electricity* is a measure of the procedures, time, and cost required for a business to obtain a permanent electricity connection for a newly constructed warehouse.
4) *Registering Property* is a measure of the procedures, time, and cost required to register commercial real estate.
5) *Getting Credit* assesses the strength of the Legal Rights index, which measures the degree to which collateral and bankruptcy laws protect the rights of borrowers and lenders, and the depth of the Credit Information index, which measures the sharing of credit information.
6) *Protecting Investors* measures the extent of disclosure and director liability, and the ease of shareholder lawsuits.
7) *Paying Taxes* measures the number of taxes paid, hours per year spent preparing tax returns and the total tax payable as a share of gross profit.
8) *Trading Across Borders* is a measure of the number of documents, cost, and time required to export and import goods.
9) *Enforcing Contracts* is a measure of the procedures, time, and cost required to enforce a debt contract.
10) *Resolving Insolvency* is a measure of the time, cost, and percentage recovery rate involved with bankruptcy proceedings.
11) *Employing Workers* is a measure of the ease with which workers can be hired or made redundant and the rigidity of working hours, although this index is no longer used in the aggregate rankings.

As far as possible, the data collection is based on a reading of the laws and regulatory provisions. However, some assessment is inevitably subjective and reflects custom and practice in implementing the law. For example, the number of processes involved in starting a business can be interpreted by looking at actual laws. However, a question about the time that it takes to start a business is not asking about a schedule laid down in a specific statute, and can be regarded as a de facto measure of what commonly happens.

The indicators are intended to be comparable across countries, which is facilitated by basing the data collection on a precisely defined hypothetical enterprise and the circumstances that it faces. The central case is a firm with at least 60 employees, which is located in the country's largest business city. It is a private, limited-liability company and does not operate in an export-processing zone or an industrial estate with special export or import privileges. It is 100 percent domestically owned, and exports constitute more than 10 percent of its sales. While this detailed hypothetical makes comparisons feasible, the importance of limited-liability companies varies a lot from country-to-country, and there is an issue of how relevant the indicators are across all sectors of the economy and all types of enterprises. For example, the findings would not apply automatically to the agricultural sector, which is a large part of the economy in many low-income countries. (In fact, the Doing Business team has now started a separate project on agriculture.)

After receiving the survey responses, an "in house" team at the World Bank cross-checks the responses against the relevant laws and regulations. After internal consultation, an index score is created on each dimension. The result is the "raw" data, which are available on the website in disaggregated form. It is a fair critique that the way in which the questionnaires are processed to get a final score is not altogether transparent. But in this way, the Doing Business project is not unusual. It is not clear how to report information from this kind of survey in a meaningful way, and one can argue that the honesty of the responses in certain countries might suffer if the original data were widely available.

For each of the 11 dimensions in the data, an aggregate score is created by taking a simple unweighted average of the ranks of the underlying indicators, which leads to a cross-country ranking within each of the 11 topics. To obtain an overall Doing Business aggregate ranking, the report calculates a percentile for each country for ten of the topics (the Employing Workers category is excluded). These percentiles are aggregated to obtain the Ease of Doing Business ranking. These are the headline rankings that receive so much attention in media coverage.

The Doing Business report now also measures the distance from the frontier to gauge how far countries are from best practice. The benchmark for this exercise is the best performance observed on each Doing Business topic across all economies and years since 2005. The score lies on a scale between 0 and 100. A perfect score of 100 would require that the economy is on the frontier in every one of the 10 dimensions that go into the ranking. A 75, for example, implies that an economy is 25 percentage points away from the frontier.

Table 1
Distance to the Frontier Score from the 2015 Doing Business Report
(100 minus the distance to the frontier score gives the percentage points away from the frontier; higher is better)

Top 10	*Country*	*Distance to Frontier score*	*Bottom 10*	*Country*	*Distance to Frontier score*
1	Singapore	88.27	180	Haiti	42.18
2	New Zealand	86.91	181	Angola	41.85
3	Hong Kong	84.97	182	Venezuela	41.41
4	Denmark	84.20	183	Afghanistan	41.16
5	South Korea	83.40	184	Democratic Republic of Congo	40.60
6	Norway	82.40	185	Chad	37.25
7	United States	81.98	186	South Sudan	35.72
8	United Kingdom	80.96	187	Central African Republic	34.47
9	Finland	80.33	188	Libya	33.35
10	Australia	80.60	189	Eritrea	33.16

Source: World Bank, *Doing Business 2015* report available at http://www.doingbusiness.org/reports/global-reports/doing-business-2015.
Notes: The distance to the frontier score is calculated relative to the best performance observed on each Doing Business topic across all economies and years since 2005. A perfect score of 100 would require that the economy is on the frontier in every one of the 10 dimensions that go into the ranking. Zero represents the lowest performance. 100 minus the distance to the frontier score give the percentage points away from the frontier. A 75, for example, implies that an economy is 25 percentage points away from the frontier. For more information, see http://www.doingbusiness.org/data/distance-to-frontier.

The aggregate output from the *Doing Business 2015* report is illustrated in Table 1, which lists the top ten and bottom ten countries along with the distance to frontier scores. There are no big surprises. Three countries from Scandinavia are in the top ten. A number of countries from sub-Saharan Africa are in the bottom ten, along with Haiti, Libya, and Afghanistan. The overall rank and distance from the frontier score of the BRIC countries are: Brazil (120, 58.01), Russia (62, 66.66), India (142, 53.97), and China (90, 62.58).

Each Doing Business report documents frequent reforms. For example, between June 2013 and June 2014, the report lists 230 reforms, with sub-Saharan Africa accounting for the largest number. A trend in recent years has been towards collecting subnational indicators, to represent better the heterogeneity in some countries. For example, the 2015 report included data for two cities, rather than just the largest business city, for 11 economies: Bangladesh, Brazil, China, India, Indonesia, Japan, Mexico, Nigeria, Pakistan, Russia, and the United States.

The underlying indicators reveal striking differences across countries. For example, the number of days that it takes to start a business according to that indicator is 144 days in Venezuela, 90 days in Zimbabwe, 25 days in Argentina, and 2.5 days in Singapore. There is some evidence of within-country variation where this information is collected, although the within-country variation tends to be small compared to the between-country variation.

The ranks on different dimensions of the Doing Business indicators tend to be positively correlated with (Spearman) rank correlations across the indicators typically between 0.3 and 0.6. That said, it is not hard to find cases where countries have quite different rankings across dimensions. For example, China is ranked at 35 for enforcing contracts but at 128 for starting a business, while Egypt has the opposite rank difference with 152 on enforcing contracts and 73 on starting a business. Such differences reinforce the need to look beyond the aggregate measures and to drill down into the specific performances across the indicators.

Overall, country rank in the Doing Business report tends to be strongly correlated with measures of development success, as well as with income per capita and with other standard measures of institutional quality, but this gives little insight into the direction of causation. Instead, this is likely to be an instance of what in Besley and Persson (2011) we have called "development clustering," the observed phenomenon that most dimensions of development move together. If the exercise is valuable for monitoring progress relative to using more standard measures of institutional quality and prosperity, it is because the specific indicators are worth exploring dimension-by-dimension.

The Value of the Exercise

The Doing Business project provides a unique perspective. But it is important for those who use the data to be familiar with how they are collected, rather than blindly downloading them and running regressions. The data are quite unique: there is no other comparable project in terms of scale or scope. Thus, the Doing Business report has the capacity to cast light on dimensions of policymaking that were not covered in previous datasets. The current chief economist of the World Bank, Kaushik Basu, states the case in his forward to the 2015 edition of the report:

> The public discourse on economic policy is overwhelmingly focused on fiscal measures, monetary interventions, welfare programs, and other such highly visible instruments of government action. Thus when an economy does poorly, a disproportionate amount of our debate centers on whether or not it needs a fiscal stimulus, whether there should be liquidity easing or tightening, whether its welfare programs have been too profligate or too paltry and so on. What gets much less attention but is equally—and, in some situations, even more—important for an economy's success or failure is the nuts and bolts that hold the economy together and the plumbing that underlies the economy. . . The World Bank Group's *Doing Business* report is an annual statement of the state of the nuts and bolts of economies around the world and, as such, is one of the most important compendiums of information and analysis of the basis of an economy's effective day-to-day functioning and development.

Prior to the Doing Business project, little was known about many aspects of the business climate. For example, most countries did not collect information on the time and effort that goes into starting a business, let alone produce such information in a way that could be compared internationally. Other areas where the incremental gains from the project in terms of bringing knowledge of cross-country differences into the daylight have been especially large include the areas of creditor rights and property registration.

Moreover, postponing for a moment the controversies about what is measured and how it is measured, it is important to note that the survey is conducted in a methodical and transparent way. The Doing Business indicators are updated annually, which means that policy reforms are soon reflected in the indicators. This feature is attractive to both researchers and also to policymakers, who can see their reform efforts translated quickly and directly into changes in the index. A consistent methodology has been pursued throughout the project, which means that country-level performances can be tracked over time. The Doing Business report is a living project that seeks to learn from criticisms with frequent efforts to improve the methodology and to expand the domain of the indicators. The methods used are clearly articulated and documented on the website along with the historical data. When indicators are changed, there are careful efforts to maintain comparability and to explain such changes. This approach contrasts with many other widely used databases that are used extensively by economists, such as the International Country Risk Guide, where data time series that are comparable before and after methodological changes can be hard to come by. The Doing Business project is also quite up-front about the limitations of its approach. For example, Table 2.3 in the 2015 report discusses the pros and cons of focusing on a standardized type of firm in the formal sector of the largest city as well as using opinions from lawyers to assess the environment for doing business in a country.

Of course, the fact that what is reported in the Doing Business data is clear and transparent should not be confused with the claim that it can tell us about the right policy mix for any particular economy. The parallel with more standard macroeconomic data is instructive. Measuring a fiscal deficit does not, by itself, yield any automatic conclusions for the best path for levels of taxing and spending. Moreover, details of specific types of taxes and spending and how they are implemented can be important. That said, nobody would wish to debate fiscal policy without some measure of the budgetary position in hand. Moreover, comparable data on international experiences using common methods of measurement are helpful in policy debates, not least in trying to draw lessons from a range of experiences.

In this spirit, the key question is whether the Doing Business data provides useful information that is relevant to real policy debates concerning the environment in which businesses operate. Policymakers in China or Brazil or Egypt have good reasons to be interested in how economies like Singapore or Sweden approach business regulation without deciding blindly that they should copy these practices. The Doing Business rankings provide a way into this question—the basis for beginning a dialogue about policy reform. This discussion was not happening on a systematic basis before the Doing Business project came along.

Moreover, there is a valuable contribution to democratic debate made by the Doing Business data, which can be downloaded and read by citizens and policymakers of any country who wish to know how their country performs and to question whether this performance is justified. More generally, the report can be thought of as tool of "yardstick competition" between governments: that is, citizens use information that is available through the media to hold their governments to account based on performance comparisons (for example, Besley and Case 1995; Salmon 1987). After all, if the Doing Business comparison is not useful in some cases, it can be always be set aside. No country or politician or citizen is obliged to take notice of it.

That said, there is a concern that international pressure can be brought to bear when international aid is at stake and when the Doing Business indicators are used in policy dialogue or as a form of conditionality. This ties into wider debates about whether aid or conditions on aid are an affront to national sovereignty in general (for example, see Easterly 2013 for discussion), and is not a concern specific to the Doing Business project.

The World Bank has a well-established role in relation to data and statistics and, under its open data initiative, now makes much data freely available. These efforts by the World Bank acknowledge the key role that data play in development debates. Good examples of World Bank–supported initiatives are the World Bank's Living Standards Measurement Studies and the World Bank Enterprise Surveys. The collection of data can be valuable to citizens and civil society, even if some of the findings can in some cases embarrass the government of a country by highlighting policy failures.

Even the debates about the validity of the Doing Business indicators (discussed in the next section) point out the usefulness of the project; after all, without the project, such debates would have been based only on uninformed conjecture. Taken as a whole, the main achievement of the Doing Business project has been to shed light and create a more informed debate on a range of differences in laws and regulations across countries in areas where little was known on a systematic basis before the project began.

Criticisms and Caveats in Context

Concerns about the use of the Doing Business data and the indicators on which it is based fall into three main categories: 1) the way in which the project works, including some defects that are inherent in the design; 2) the validity of the indicators for policy choices or outcomes; and 3) the underlying objectives and motives of those who are designing the indicators. Let us consider these in turn.

The Nature of Exercise

The Doing Business report focuses on formal and legal requirements as assessed by legal professionals in that country. Given the specified type of reference firm for which the data are collected, we would not expect the data to correlate with the experience of all firms in the economy.

A tradeoff arises here. On one side, given the differences in industrial structure and corporate forms across economies, the idea of a standardized firm is necessary for international comparisons, even if it limits what can be learned about the broader business environment. On the other side, the extent to which the specific reference frame created for the standardized firm indicates how firms in general experience the business climate is far from clear. For example, in many developing countries, large swathes of economic activity are conducted under the radar in the informal sector, where the role of formal rules and legal procedures is murky at best. For example, Schneider (2002) estimates that the median level of formal economic activity in the countries in his sample is around 67 percent, while in the bottom quartile of the countries in the distribution, around 49 percent of economic activity is formal.

A robust finding in the Doing Business report is that the countries which have a higher rank tend to have smaller informal sectors. This pattern suggests that the choice to become a formal firm may be a key margin affected by business regulation and formal laws. Of course, the Doing Business indicators may offer some insight into why some forms of formal enterprise are discouraged. Indeed, implicit within the Doing Business approach is the plausible belief that, in the end, it is likely to be the development of larger, formal sector firms that will be engines of employment creation and poverty reduction. But for that very reason, the way in which business conditions affect the extensive margin between whether firms choose to be formal and informal may be more important than how such rules affect the behavior of the formal sector taken alone.

Firms will experience the business climate differently. Firm-level surveys done at the national level, such as the World Bank Enterprise Surveys (at http://www.enterprisesurveys.org/), offer a useful complement to the Doing Business approach to examining regulation. They allow the range of firms surveyed to be broader than the stylized type of firm towards which the Doing Business indicators are targeted: for example, only about half of the firms in the Enterprise Surveys are privately held, limited liability companies, and the proportion in the data varies significantly by country. Such detailed surveys are expensive to implement and cannot be conducted annually for a broad range of countries. But they can ask useful questions about the experiences that enterprises have in dealing with government and in turn connect these experiences to measures of firm-level performance.

Table 2 describes how certain questions in the Enterprise Surveys are correlated with comparable questions in the Doing Business report. It reports whether correlations are positive or negative and includes an asterisk if they are statistically significant at 5 percent. The Enterprise Survey question used in each regression is given at the start of each panel. We then list the Doing Business indicators that were selected to correspond best to this question. Next we report the sign of each correlation with that indicator conditioning on year dummies and GDP per capita. The first column considers conditional correlations across all firms. The remaining columns look at whether these correlations are more robust for those firms in the

Table 2
Enterprise Survey Correlations with Doing Business Indicators

			Firm size (number of workers w)			Firm in capital city?		Legal structure: limited liability?	
		All firms	*Small:* $w \leq 20$	*Medium:* $20 < w \leq 100$	*Large:* $w > 100$	*Yes*	*No*	*Yes*	*No*
Enterprise Survey Question: *Biggest obstacle for firm is finance?* [no = 0, yes = 1]									
Doing Business topic: Getting credit	Strength of legal right index	+	+	+	−	+	+	+	+
	Depth of credit information index	−	−	−	−	−	−	−	−
	Public credit registry coverage, % of population	+	+	+	+	+(*)	+	+	+
	Private credit registry, % of population	−	−	−	+	+	−	−	−
Enterprise Survey Question: *How much of an obstacle is access to finance?* [High: More severe obstacle]									
Doing Business topic: Getting credit	Strength of legal right index	−	−	−	−	−	−	−	−
	Depth of credit information index	−(*)	−(*)	−(*)	−	−	−(*)	−	−(*)
	Public credit registry coverage, % of population	+	+	+	−	+	+	+	+
	Private credit registry, % of population	+	+	+	+	+	+	+	+
Enterprise Survey Question: *Biggest obstacle for firm is business regulation?* [no = 0, yes = 1]									
Doing Business topic: Starting a business	Procedures (number)	+(*)	+(*)	+(*)	+	+(*)	+(*)	+(*)	+
	Time (days)	−	−	−	+	−	−	−	+
	Cost of income per capita	−	−	+	−(*)	−	+	+	−
Enterprise Survey Question: *Biggest obstacle for firm is courts?* [no = 0, yes = 1]									
Doing Business topic: Enforcing contracts	Time (days)	+	+	+	−	+	+	−	+
	Cost (% of claim)	−	−	−	−	−	−	+	−
	Procedures (number)	−(*)	−	−	−	+	−(*)	−	−
Enterprise Survey Question: *How much of an obstacle is the court system?* [High: More severe obstacle]									
Doing Business topic: Enforcing contracts	Time (days)	+	+(*)	+	+	+	+(*)	+	+
	Cost (% of claim)	−	−	−	−	+	−	−	−
	Procedures (number)	−	−	−	−	−	−	−	−

(Continued)

Table 2—continued

			Firm size (number of workers w)			*Firm in capital city?*		*Legal structure: limited liability?*	
		All firms	*Small:* $w \leq 20$	*Medium:* $20 < w \leq 100$	*Large:* $w > 100$	*Yes*	*No*	*Yes*	*No*
Enterprise Survey Question: *Biggest obstacle for firm is customs and trade regulations?* [no = 0 , yes = 1]									
Doing Business topic: Trading across borders	Documents to export (number)	+	−	+	+	−	+	−	+
	Time to export (days)	+	+	+	+	+	+	+	+
	Cost to export (US$ per container)	−	−(*)	+	+	−	−	−	−(*)
	Documents to import (number)	−	−	−	−(*)	+	−	−	−
	Time to import (days)	−	−	+	−	−	+	+	−
	Cost to import (US$ per container)	+	+(*)	+	+	+	+	+	+(*)
Enterprise Survey Question: *How much of an obstacle are customs and trade regulations?* [High: More severe obstacle]									
Doing Business topic: Trading across borders	Documents to export (number)	+	+	+	+ (*)	+	+	+	+
	Time to export (days)	−	−	+	−	+	−	−	+
	Cost to export (US$ per container)	−	−	−	−	−	−	−	−
	Documents to import (number)	−(*)	−(*)	−	−(*)	−	−(*)	−(*)	−(*)
	Time to import (days)	+	+	+	+	+	+	+	+
	Cost to import (US$ per container)	−(*)	+(*)	+	+	+	+	+(*)	+(*)

Notes: Each panel of reported + or − is from a cross-country regression of the average answer to an Enterprise Survey on a selected set of *Doing Business* indicators. The sample-selection determines the group of firms within each country used to construct the Enterprise Survey average. All regressions include year fixed effects and the logarithm of per capita GDP in purchasing power parity (PPP) 2005 constant dollars. The Doing Business historical dataset for years 2004 to 2013 was accessed at http://www.doingbusiness.org/custom-query, retrieved on April 26, 2013. All economies across regions and income-groups were included and all topics except Getting Electricity and Paying Taxes were chosen. In the dataset, all observations which recorded ".." and "no practice" were coded as missing observations. Upon retrieval, the dataset contained 1,850 country-year observations. The World Bank Enterprise Surveys Standardized Data 2006–2911 was accessed on March 3, 2013 at the Full Survey data Portal of the Enterprise Survey website; the latest version of the Enterprise Surveys can be found here: http://www.enterprisesurveys.org/data/survey-datasets. Upon retrieval, the raw dataset contained 70,624 firm-country-year observations. The data series of GDP per capita, PPP at constant 2005 international dollars was retrieved from the World Development Indicators database on April 26, 2013, at http://databank.worldbank.org/data. For details, see online Appendix available with this paper at http://e-jep.org.
* Denotes 5% significance of the regression coefficient, robust standard errors.

sample who more closely resemble the firms towards which the Doing Business are targeted by varying the sample by firm size, whether the firm is a limited liability businesses, and whether the firm is located in the capital city.

The picture shown in Table 2 is quite mixed; a number of the correlations go in the expected direction, but are frequently not significant. And some puzzles also emerge. For example, the number of procedures to start a business is positively correlated with firms saying that regulation is the biggest obstacle to doing business, whereas the time taken to start a business is mostly negatively correlated. In this issue, Hallward-Driemeier and Pritchett also find only weak correlations between changes over time found in the firm-level Enterprise Surveys and the Doing Business indicators.

What to make of these patterns is largely a moot question. Enterprise-level surveys are a better way of exploring heterogeneity of the business climate within a country than the Doing Business Survey. However, data from the Enterprise Surveys do not necessarily give a better sense than the Doing Business project of country averages, given that firms will face different experiences with some dimensions of the regulatory and legal structures, which make the responses of professional lawyers in some ways more reliable. Moreover, firm-level data seek to be representative of the industrial structure as it stands, and cannot easily be used to explore how it would be different in the absence of barriers to formality or regulations. By definition, firms that do not exist because of adverse business conditions cannot be surveyed. Another potential explanation is that there is a distance between de jure and de facto regulatory processes. While it is impossible to say which of these factors could be at work, the poor correlation between Doing Business report indicators and firm-level surveys that ask similar questions is less surprising than it might seem at first blush.

Lawyers who are immersed in the complexities of law have been known to criticize the Doing Business indicators as a crude measurement that may fail to capture relevant complexities. This critique has some literal truth in it. By design, the Doing Business data is incapable of capturing the complexities of the legal system. As mentioned earlier, the answers to the Doing Business survey questions are in some cases a mixture of de jure legal requirements and what happens de facto to businesses. Moreover, there is some in-house World Bank processing of the received data, in a way that is not especially transparent. That said, the lawyers' criticism also reflects a culture clash between economists and lawyers. Economists can sometimes rightly be accused of being too willing to accept stylized and simplified characterizations of reality for the purposes of analysis. But the need for economic variables that can be expressed in a compact manner means that some short-cuts are inevitable.

The names of indicators or their content may in some cases be misleading, which emphasizes the need to look carefully behind the labels at the content of the indicators. For example, one of the indicators is Paying Taxes, which in the Doing Business data is proxied by the number of separate taxes to be paid, hours per year that the reference company would spend preparing tax returns, and the total tax payable by that reference firm as a share of gross profit. From the standpoint of the broad questions in public finance—that is, how a tax system can be designed to raise revenues and to ensure compliance while avoiding unnecessary burdens on a country's citizens—the Doing Business measure is narrowly focused and not well-connected to the broader concerns. For example, two of the biggest challenges in public finance for many countries in recent years have been in rolling out a value-added tax and in having firms assist employees in their compliance with the personal income tax. The Doing Business ranking on paying taxes is actually on average higher (a "worse" performance) in countries which have introduced a value-added tax: for example, in the 2006 Doing Business data, the average rank of countries that had a value-added tax was 91 compared to an average rank of 68 among countries that did not have a value-added tax. While having a value-added tax may not cause this lower ranking, it emphasizes the point that there is more to having a good tax system than ease of compliance. The Doing Business indicators would measure the burdens imposed on firms, but from a social perspective, any gains in revenue-raising efficiency would need to be balanced against such costs. Of course, the shortcomings of this measure should be apparent to anyone who actually looks.

The Getting Credit indicator seems named in a potentially misleading way, too. The unwary consumer of this data might presume that it refers to actual measures of credit. Instead, it is based on a Legal Rights index based on collateral and bankruptcy laws and a Credit Information index based on the degree of sharing of credit information. This indicator is correlated with a range of credit outcomes, but it is not a measure of the quantity of credit nor how credit is allocated—or particularly the extent to which credit flows to the highest-return activities. Moreover, many aspects of the environment in which credit is obtained are not included, like the competitiveness of the financial system or measures of financial regulation such as capital requirements.

It is also important to realize that the Doing Business indicators do not capture anything close to a complete picture of the business environment. Indeed, they are not in any meaningful sense a "first best" set of indicators. The project is not based on a grand design that begins from the question: "What would it take to capture the complete business environment across countries and over time?" Instead, the project has tended to proceed as a bottom-up entrepreneurial exercise, taking opportunities to add indicators of particular interest, and using a lot of a priori judgment. As the Doing Business project matures (which will require that additional resources be found), it could develop a more comprehensive view of the business environment. At present, some notable gaps in looking at the bigger picture of the business environment include a wider view of infrastructure, competition policy, trade policy, and many dimensions of regulation such as workplace health and safety.

None of these issues should trouble an educated user of the data, who would be aware of such issues and could use the data accordingly. But journalistic accounts of the Doing Business rankings and the indicators on which they are based typically paint these data as a complete and representative picture.

If the Doing Business rank were strongly correlated with broad contours of the business environment, these limitations might not matter so much. Indeed, one would expect strong correlations across the indicators, reflecting an overall level of state competence. For some purposes, this level of generality suffices. The fact that Singapore is top in the ranking in the Doing Business *2015* report is essentially sending this message. That Singapore does a little better than Sweden is probably not telling us very much of quantitative interest—they both have effective states that have helped to foster prosperity in a wide variety of ways. Equally, the fact that Chad or Libya have incompetent states probably does not hinge very much on the mix of indicators that are chosen to establish this.

For the basic task of getting regulatory and/or legal reform on the public policy agenda, just knowing where an aggregate ranking for a country is can be a useful start. But when the debate turns to specific dimensions of policy reform, the details matter. It is important not to follow any specific indicators slavishly, because it is always an open question whether the specific policy priorities are well reflected in the disaggregated Doing Business rankings. It's also important to remember that certain policy reforms are likely to have complementarities across several policy dimensions—economic and noneconomic—like steps to speed up court decisions and to train more competent lawyers.

The Validity of the Indicators

The Doing Business indicators have been a boon to research. Many economic studies (including some of my own) use the Doing Business indicators as either right- or left-hand-side variables in regressions. To give a flavor of the uses to which these data have been put, Table 3 lists some studies that use the Doing Business indicators on either the left- or right-hand side of regressions. There is no scientific basis for this selection of studies except that all of the studies are well-cited, suggesting that subsequent work has paid attention to them, for better or worse. In each case, the authors report patterns that emerge in comparisons across countries. In most cases, the concern is with whether a particular indicator is correlated with aggregate or firm-level outcomes, or whether, if used as a left-hand side variable, the indicators are correlated with country characteristics, history, or institutions.

Each study tells a story that can be elaborated in detail. To give a flavor of this, consider the highly influential paper by Djankov, McLiesh, and Shleifer (2007) listed in Table 3. It examined correlations between the Getting Credit indicators and a variety of credit market outcomes. They find that formal creditor protection, along with the existence of institutions that share information, are associated in cross-country data with a higher ratio of private credit to GDP. These correlations seem relatively more important in higher-income countries. They also find strong correlations between the legal origins of a country—in particular, whether it evolved as a common law country relying more on private contracting, or as a civil law country relying more on government regulation and ownership—and the Getting Credit indicators. This finding has fuelled debates about the importance of credit market reforms and their value. It has also raised the issue of whether some kinds of legal systems are more conducive to creditor protection. The findings are clearly intriguing. It would be naïve to think that strong policy conclusions can be

Table 3
Selected Studies that Make Use of the Doing Business Indicators

Author/Year/Title	*Core finding(s)*	*Doing Business indicator as left- or right-hand side variable?*
Djankov, La Porta, Lopez-de-Silanes, Shleifer, 2002, "The Regulation of Entry."	More burdensome regulation is associated with higher levels of corruption; greater size of informal economy; lower executive constraints; and less political rights	Right-hand side Left-hand side
Djankov, La Porta, Lopez-de-Silanes, Shleifer, 2008, "The Law and Economics of Self-Dealing."	Index measure of legal protection of minority shareholders against expropriation is positively correlated with financial development	Right-hand side Left-hand side
Djankov, McLiesh, Shleifer, 2007, "Private Credit in 129 Countries."	Common law is associated with higher creditor rights, while French civil law is associated with higher incidence of public credit registries. Increase in creditor rights and public registry incidence is associated with a higher ratio of private credit to GDP	Right-hand side Left-hand side
Djankov, La Porta, Lopez-de-Silanes, Shleifer, 2003, "Courts."	Procedural formalism, the extent to which dispute resolution is regulated, is associated with longer duration of dispute; lower enforceability; and, higher corruption	Right-hand side Left-hand side
Nunn, 2007, "Relationship-Specificity, Incomplete Contracts, and the Pattern of Trade."	Countries with better contract enforcement and judicial systems are also more specialized in production of goods for which relationship-specific investments are the most important	Right-hand side Left-hand side
Klapper, Laeven, Rajan, 2006, "Entry Regulation as a Barrier to Entrepreneurship."	Rate of firm-incorporation in 'naturally high-entry' industries is lower in countries where regulatory costs are higher	Right-hand side Left-hand side
Djankov, Hart, McLiesh, Shleifer, 2008, "Debt Enforcement around the World."	Index measure of efficiency of debt enforcement is correlated with per capita income and legal origins	Right-hand side Left-hand side

(Continued)

drawn from a single study of this kind. However, it may influence the climate of opinion around what matters in improving the legal framework for credit.

The fact that so much academic research has taken the Doing Business indicators seriously could be thought of as a prima facie case for using them in policy discussions. In general, the absence of a robust correlation between an indicator used as a right-hand side variable and an outcome of interest is taken to cast suspicion on whether policymakers should use the Doing Business indicators in policy dialogues. On the other side, finding a robust correlation is often taken to constitute a *prima facie* case for using a certain policy tool. Both claims should be treated with caution. All of the standard concerns and caveats of using regression methods to inform policy apply when using the Doing Business indicators. Is the measurement

Table 3—continued

Author/Year/Title	*Core finding(s)*	*Doing Business indicator as left- or right-hand side variable?*
Besley, Persson, 2009, "The Origins of State Capacity: Property Rights, Taxation and Politics."	Countries with greater historical incidence of external conflict also have stronger creditor rights and sharing of credit information, but there is no significant association with investor protection	Left-hand side
Lerner, Schoar, 2005, "Does Legal Enforcement Affect Financial Transactions? The Contractual Channel in Private Equity."	Countries that take longer time in contract disputes are less likely to rely on preferred stock and more likely to use debt for investment structure	Right-hand side
Cooley, Marimon, Quadrini, 2004, "Aggregate Consequences of Limited Contract Enforceability."	Cross-country lower contract enforceability is associated with larger economic growth volatility	Right-hand side
Bae, Goyal, 2009, "Creditor Rights, Enforcement and Bank Loans."	Stronger legal rights of creditors against defaulting debtors is associated with larger loan size, longer loan maturity, and a reduction in loan-spreads	Right-hand side
Berglof, Pajuste, 2005, "What Do Firms Disclose and Why? Enforcing Corporate Governance and Transparency in Central and Eastern Europe."	Voluntary public disclosure by firms of financial accounts is more prevalent in countries with better functioning legal systems	Right-hand side
Ciccone, Papaioannou, 2007, "Red Tape and Delayed Entry."	Countries with less burdensome regulation are associated with more entry in industries that benefited under expansionary global demand and technology shifts	Right-hand side Left-hand side
Freund, Bolaky, 2008, "Trade, Regulations, and Income."	The positive impact of openness on per capita income is reduced when there is more regulation	Right-hand side Left-hand side

precise enough? Are the independent variables exogenous? Correlations uncovered in this way are open to a number of common criticisms. For example, controlling for a range of omitted variables in cross-country regressions is always problematic. If government competence has benefits, then it could well be positively correlated with both the Doing Business indicators and the outcomes of interest.

In addition, given the frame of reference for the Doing Business project (a particular kind of firm in the largest business city), we would expect considerable measurement error to arise because this particular measure of the business climate may not apply to firms that do not fit the standardized profile. The usual assumption is that measurement error should tend to bias correlations—in this case between doing business indicators and measures of firm performance—towards zero. However, if the Doing Business indicators are related to the composition of business enterprises, perhaps because there are fewer formal firms due to the business climate being poor, then the measurement error is no longer randomly distributed and the direction of bias is not clear a priori. This insight may further explain the inconsistent correlations reported on in Table 2.

Well-identified causal effects are frequently regarded as the "gold-standard" for much policy evaluation. But even if problems of endogenity and omitted variable bias could be overcome for the Doing Business project, well-identified causal effects are in many contexts of limited value for concrete policy advice. First, there is tendency to focus on the average effects whereas in practice there are important sources of heterogeneity that affect the impact of a policy reform in a specific context. Second, a persuasively established causal connection between a given indicator and an outcome of interest need not imply that reform in this policy dimension should be the highest priority for that country when there is limited capacity for reform. Third, there is no guarantee that reforms will be implemented effectively if they were attempted.

Finally, one should remember that the Doing Business indicators measure only formal processes. Countries vary enormously in the institutional structures outside the formal legal system. In China, for example, formal structures are weak but other mechanisms are conducive to private investment. Regression-based evidence struggles to capture this kind of contextual information. Moreover, the quality of formal legal institutions and informal responses may well be co-determined, making it hard to condition on such factors.

Taking stock of these concerns, it is tempting to conclude that using regression-based evidence as a basis for validating the Doing Business indicators is of limited value. But that conclusion would follow only from a narrow perspective on how evidence is accumulated and used in shaping opinion. The regression evidence matters as part of a narrative which blends theory and data without necessarily appealing to rigorous arguments about causation. Even well-identified causal effects, where they exist, mostly offer a one-dimensional perspective on what matters in policy debates, with external validity requiring a host of strong and untested assumptions. Observed correlations and their interpretation are frequently important in debates about public policy reform.

Deregulation Bias?

A frequently heard criticism is that the Doing Business indicators have a deregulation bias—that is, lower levels of regulation lead to better scores and rankings. In an ideal world, it should be possible to separate the measurement of regulations from their normative status; for example, the data could show whether hiring and firing is more difficult in one country or another, without necessarily implying a policy conclusion. However, if a measure is put into a ranking, then a line has to be taken on what constitutes a better performance.

The claim that there is a bias towards deregulation is difficult to assess. Some of the specific items in the Doing Business rankings are more about government efficiency than about the merits of regulation. For example, it is difficult to argue that it is an important regulatory goal to impose especially long time delays or high costs for those who want to start a new firm, or register commercial property, or engage in international trade, or get a construction permit. In other cases, like measures of financial disclosure by firms, functional bankruptcy laws, and sharing credit information, the Doing Business indicators seem to have more to do with building useful institutions than with a bias toward deregulation.

However, the Doing Business project as a whole is clearly motivated by a belief that frictions due to poor regulation and an ineffective legal system inhibit the performance of firms and can therefore lower job creation and impede poverty reduction. This view does permeate the choice of indicators and the way that data are collected. But to argue that this creates a wholesale deregulation bias is an overstatement.

The greatest controversy over a potential deregulation bias arose regarding the Employing Workers measure, which looks at how easy it is to hire or fire workers, and the rigidity of working hours. These sorts of labor market rules are hotly contested political territory, enough so that the Employing Workers indicators were removed from the country ranking. (The International Labor Organization (2007) was among the voices arguing for this change.) However, even without taking a stand on the appropriate degree of labor market regulation, there is scope for nuanced work in this area. For example, labor regulation success could be judged on the basis of indicators that achieve more employment generation on one dimension, and more or less worker protection on a separate dimension, without trying to be specific about any tradeoffs between these two goals. Indeed, the *World Development Report* (World Bank 2012) took a rather broader approach to labor market issues to that implicit in the Doing Business indicators for employing workers.

The Political Economy of Data Collection

It is not difficult to understand why the Doing Business project has proven to be both influential and controversial. A range of academics have used the data, leading to publications in top journals. This gives the project academic credibility. Policymakers refer to the rankings and even target them as policy objectives. This gives the project salience. Concerned citizens and civil society organizations also use them. This puts the project at the center of global debates. Finally, the data deal with issues that go to the heart of debates about the role of the state in economic development. This makes the project politically charged.

The Doing Business report and the debates which it has provoked underline the important role that the collection and dissemination of data play in policymaking. It is easy to forget that national income accounts were created primarily as a tool for economic management. The collection of poverty statistics is intimately linked to the desire to assess social and economic progress as well as to monitor the success of policies. Doing Business follows in this tradition, purposefully collecting data as the basis for scrutinizing policy and monitoring progress. That said, when the report is publishing rankings and distance to the frontier, it would be naive to believe that data collection and presentation is a purely technocratic process. The Doing Business indicators are part of the policy debate and hence have the potential to influence policymaking. They are used by governments who set their own goals and internally by the World Bank, as well as by other multilateral organizations and foreign aid agencies.

The interaction between data and politics can be tricky. One common concern when measures become salient is that policymakers may seek to "game" the indicators, rather than facing up to some of the more important challenges. This phenomenon is well-understood in other contexts and travels under a variety of names. For example, Campbell's (1976, p. 49) law states: "The more any quantitative social indicator (or even some qualitative indicator) is used for social decision-making, the more subject it will be to corruption pressures and the more apt it will be to distort and corrupt the social processes it is intended to monitor." An alternative label is Goodhart's (1981, p. 116) law: "Any observed statistical regularity will tend to collapse once pressure is placed upon it for control purposes." This risk becomes particularly important when specific policy indicators can become politicized and hence salient in the eyes of policymakers. It is then important that there is not too much reliance on any particular single indicator, such as a ranking.

In the case of the Doing Business indicators, the accusation is that policymakers who desire to improve their Doing Business ranking may make pro forma changes in laws which have limited substantive value. The case of Rwanda, with 2015 Doing Business ranking of 47 (better than Italy) despite having per capita national income under $1,000 and more than 40 percent of its population in poverty, surfaces regularly in such discussions. For people to be taken in by gaming, it must be that the indicators are being used in a naive way, as ends in themselves, when the value of changes are being appraised. Any robust policy dialogue must rely on a much broader assessment of reform than on the Doing Business rankings. Those who have a strategic purpose will either play up or overlook data limitations, depending on their political goals. One role of professional economists is to help maintain standards of balanced analysis.

A more fundamental concern about the political economy is whether the World Bank has a legitimate role in collecting and publicizing this kind of data. As the Doing Business report has become influential, the question of accountability for the data and processes of internal scrutiny has become pressing. In the democratic world, at least, the datasets collected and their purposes come under the general aegis of democratic accountability, and derive their legitimacy in this way. Although statistical agencies in many countries enjoy a degree of independence, which enhances their effectiveness, they are ultimately accountable for the work that they do.

Accountability for data not collected by a democratic nation state is more open to question. For example, nongovernment organizations such as Transparency International, Freedom House, Amnesty International, and the Heritage Foundation collect data with a purpose and seek to influence policy through their efforts.

In these cases, accountability for the methods used and the validity of the measurement is frequently unclear. In addition, the fact that the data is being collected by an organization with a policy agenda may raise suspicions in the eyes of users about the independence of the data collection process.

Of course, the World Bank is not a free-standing organization, but instead is responsible to its member governments through its board. It is also monitored by and frequently criticized by civil society organizations. This reality may make it increasingly difficult to have a controversial exercise like the Doing Business project housed at the World Bank. Although providing capital for development projects remains a core part of the World Bank's activities, it is not the institution's exclusive focus. It also plays an important role in the development of data and ideas, and the World Bank would be a much less relevant organization if it chose always to back away from controversy. The World Bank has sponsored a variety of data-based initiatives: for example, since the 1980s, it has been involved in collecting the Living Standard Measurement Surveys, gathering rich data on households in countries around the world, and since the 1990s, it has been carrying out the Enterprise Surveys of firms.

The Doing Business project and the annual reports that it produces are a legitimate and useful part of the mission of the World Bank as a development organization. Moreover, there are sound reasons to collect data in a systematic way that allows comparisons across countries and over time. The exercise will never be free from controversy and the data must be used with appropriate caveats. It is also important to have independent oversight by those who are not viewed as having any particular policy agenda. The fact that data can be abused or that it may on occasion upset certain political interests would be poor excuses for not trying to collect it.

Data is an important compliment to democratic accountability in countries where democratic pressure can be applied. This insight also implies that the Doing Business report is destined to be most effective as a tool for inspiring debate over policy change in countries that already have an interest in making policy reforms. Indeed, the Doing Business rankings are likely to be much less influential in countries that already have the means of holding their governments to account and have evolved data relevant to doing this. Many developing countries around the world labor under repressive governments that limit freedom of debate, where the data cannot easily be incorporated into an accountability process. It is often in the weakly institutionalized parts of the world where governments are less attentive to their citizens' wishes that the loudest objections to data collection and dissemination are heard. However, access to the Internet and social media has made it much harder for governments to restrict access to data where they exist and the debates that they provoke.

As with any kind of economic data, nobody should use the measures from the Doing Business project without first understanding the details of how they are collected and what they do and do not measure. But even with its inevitable imperfections and growing pains, the Doing Business project seeks to measure issues where economists knew almost nothing before the project began. Controversies over what the data can and cannot show should not be viewed as a distraction. Nor do they invalidate the work itself. They should instead be viewed as a useful and vital part of the public policy discussion. Such controversies illustrate how the measurement of key variables can fuel important policy debates and help to propel the impact of economic ideas.

■ *The author was a member of the World Bank panel that assessed the Doing Business project in 2013. He received no remuneration from any party for his input into the panel's work. He is a now a member of the Doing Business Advisory Panel for which he also receives no remuneration. The author is grateful for helpful input from the board of editors, Chang-Tai Hsieh, and Gillian Paull. Anders Jensen provided excellent research assistance.*

References

Acemoglu, Daron, Simon Johnson, and James A. Robinson. 2001. "The Colonial Origins of Comparative Development: An Empirical Investigation." *American Economic Review* 91(5): 1369–1401.

Acemoglu, Daron, and James A. Robinson. 2012. *Why Nations Fail: The Origins of Power, Prosperity, and Poverty.* New York: Crown.

Adelaja, Tai. 2012. "Vladimir Putin Aims to Boost Russia's Investment Climate." *Telegraph.* June 15, 2012. Supplement produced and published by *Rossiyskaya Gazeta.* http://www.telegraph.co.uk/sponsored/rbth/business/9333604/vladimir-putin-russia-investment.html.

Bae, Kee-Hong, and Vidhan K. Goyal. 2009. "Creditor Rights, Enforcement, and Bank Loans." *Journal of Finance* 64(2): 823–60.

Berglöf, Erik, and Anete Pajuste. 2005. "What Do Firms Disclose and Why? Enforcing Corporate Governance and Transparency in Central and Eastern Europe." *Oxford Review of Economic Policy* 21(2): 178–97.

Besley, Timothy, and Anne Case. 1995. "Incumbent Behavior: Vote-Seeking, Tax-setting, and Yardstick Competition." *American Economic Review* 85(1): 25–45.

Besley, Timothy, and Torsten Persson. 2009. "The Origins of State Capacity: Property Rights, Taxation, and Politics." *American Economic Review* 99(4): 1218–44.

Besley, Timothy, and Torsten Persson. 2011. *Pillars of Prosperity: The Political Economics of Development Clusters.* Princeton University Press.

Besley, Timothy, and Torsten Persson. 2014. "The Causes and Consequences of Development Clusters: State Capacity, Peace and Income." *Annual Reviews of Economics* 6: 927–49.

Buerkle, Tom. 2015. "Prime Minister Narendra Modi Has High Hopes for India." *Institutional Investor.* January 28. http://www.institutionalinvestor.com/article/3421742/banking-and-capital-markets-emerging-markets/prime-minister-narendra-modi-has-high-hopes-for-india.

Campbell, Donald T. 1976. "Assessing the Impact of Planned Social Change." The Public Affairs Center, Dartmouth College, Hanover New Hampshire, USA. http://portals.wi.wur.nl/

files/docs/ppme/Assessing_impact_of_planned_social_change.pdf.

Ciccone, Antonio, and Elias Papaioannou. 2007. "Red Tape and Delayed Entry." *Journal of the European Economic Association* 5(2–3): 444–58.

Cooley, Thomas, Ramon Marimon, and Vincenzo Quadrini. 2004. "Aggregate Consequences of Limited Contract Enforceability." *Journal of Political Economy* 112(4): 817–47.

Djankov, Simeon, Oliver Hart, Caralee McLiesh, and Andrei Shleifer. 2008. "Debt Enforcement around the World." *Journal of Political Economy* 116(6): 1105–1149.

Djankov, Simeon, Rafael La Porta, Florencio Lopes-de-Silanes, and Andrei Shleifer. 2002. "The Regulation of Entry." *Quarterly Journal of Economics* 117(1): 1–37.

Djankov, Simeon, Rafael La Porta, Florencio Lopez-de-Silanes, and Andrei Shleifer. 2003. "Courts." *Quarterly Journal of Economics* 118(2): 453–517.

Djankov, Simeon, Rafael La Porta, Florencio Lopez-de-Silanes, and Andrei Shleifer. 2008. "The Law and Economics of Self-Dealing." *Journal of Financial Economics* 88(3): 430–65.

Djankov, Simeon, Caralee McLiesh, and Andrei Shleifer. 2007. "Private Credit in 129 Countries." *Journal of Financial Economics* 84(2): 299–329.

Easterly, William. 2013. *The Tyranny of Experts: Economists, Dictators, and the Forgotten Rights of the Poor.* Basic Books.

Freund, Caroline, and Bineswaree Bolaky. 2008. "Trade, Regulations, and Income." *Journal of Development Economics* 87(2): 309–321.

Glaeser, Edward L., and Andrei Shleifer. 2003. "The Rise of the Regulatory State." *Journal of Economic Literature* 41(2): 401–425.

Goodhart, Charles. 1981. "Problems of Monetary Management: The U.K. Experience." *Inflation, Depression, and Economic Policy in the West,* edited by Anthony S. Courakis, pp. 111–46. Rowman & Littlefield.

Hallward-Driemeier, Mary, and Lant Pritchett. 2010. "How Business is Done and the 'Doing Business' Indicators: The Investment Climate when Firms have Climate Control." Unpublished paper.

International Labor Organization. 2007. "The World Bank *Doing Business* Report: The Employing Workers Indicator." For Debate and Guidance: Fourth Item on the Agenda, 300th Session of the Governing Body, Geneva, November 7. http://www.ilo.org/wcmsp5/groups/public/---ed_norm/---relconf/documents/meetingdocument/wcms_085125.pdf.

Klapper, Leora, Luc Laeven, and Raghuram Rajan. 2006. "Entry Regulation as a Barrier to Entrepreneurship." *Journal of Financial Economics* 82: 591–629.

Lerner, Josh, and Antoinette Schoar. 2005. "Does Legal Enforcement Affect Financial Transactions? The Contractual Channel in Private Equity." *Quarterly Journal of Economics* 120(1): 223–46.

Nunn, Nathan. 2007. "Relationship-Specificity, Incomplete Contracts and the Pattern of Trade." *Quarterly Journal of Economics* 122(2): 569–600.

Salmon, Pierre. 1987. "Decentralization as an Incentive Scheme." *Oxford Review of Economic Policy* 3(2): 24–43.

Schneider, Friedrich. 2002. "Size and Measurement of the Informal Economy in 110 Countries Around the World." Unpublished paper.

UK Trade & Investment. 2014. "Guidance: Exporting to Peru." March 26. At Gov.uk: https://www.gov.uk/government/publications/exporting-to-peru/exporting-to-peru.

World Bank. 2012. *World Development Report 2013: Jobs.* Washington, DC: World Bank.

World Bank. 2014. *Doing Business 2015: Going Beyond Efficiency.* Washington, DC: World Bank.

This article has been cited by:

1. Michael A. Clemens, Michael Kremer. 2016. The New Role for the World Bank. *Journal of Economic Perspectives* **30**:1, 53-76. [Abstract] [View PDF article] [PDF with links]