

About *Doing Business*: measuring for impact

A vibrant private sector—with firms making investments, creating jobs and improving productivity—promotes growth and expands opportunities for poor people. To foster a vibrant private sector, governments around the world have implemented wide-ranging reforms, including price liberalization and macroeconomic stabilization programs. But governments committed to the economic health of their country and opportunities for its citizens focus on more than macroeconomic conditions. They also pay attention to the quality of laws, regulations and institutional arrangements that shape daily economic activity.

Until 10 years ago, however, there were no globally available indicator sets for monitoring such microeconomic factors and analyzing their relevance. The first efforts to address this gap, in the 1980s, drew on perceptions data from expert or business surveys that capture often one-time experiences of businesses. Such surveys can be useful gauges of economic and policy conditions. But few perception surveys provide indicators with a global coverage that are updated annually.

The *Doing Business* project takes a different approach from perception surveys. It looks at domestic, primarily small and medium-size companies and measures the regulations applying to them through their life cycle. Based on standardized case studies, it presents quantitative indicators on business regulation that can be compared across 183 economies and over time. This approach complements the perception surveys in exploring the major constraints for businesses, as experienced by the businesses themselves and as set out in the regulations that apply to them.

Rules and regulations are under the direct control of policy makers—and policy

makers intending to change the experience and behavior of businesses will often start by changing rules and regulations that affect them. *Doing Business* goes beyond identifying that a problem exists and points to specific regulations or regulatory procedures that may lend themselves to reform (table 2.1). And its quantitative measures of business regulation enable research on how specific regulations affect firm behavior and economic outcomes.

The first *Doing Business* report, published in 2003, covered 5 indicator sets and 133 economies. This year's report covers 11 indicator sets and 183 economies. Ten topics are included in the aggregate ranking on the ease of doing business and other summary measures.¹ The project has benefited from feedback from governments, academics, practitioners and reviewers.² The initial goal remains: to provide an objective basis for understanding and improving the regulatory environment for business.

WHAT DOING BUSINESS COVERS

An entrepreneur's willingness to try a new idea may be influenced by many factors, including perceptions of how easy (or difficult) it will be to deal with the array of rules that

define and underpin the business environment. Whether the entrepreneur decides to move forward with the idea, to abandon it or to take it elsewhere might depend in large part on how simple it is to comply with the requirements for opening a new business or getting a construction permit and how efficient the mechanisms are for resolving commercial disputes or dealing with insolvency. *Doing Business* provides quantitative measures of regulations for starting a business, dealing with construction permits, getting electricity, registering property, getting credit, protecting investors, paying taxes, trading across borders, enforcing contracts and resolving insolvency—as they apply to domestic small and medium-size enterprises.³ It also looks at regulations on employing workers.

A fundamental 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, rules that increase the predictability of economic interactions and rules that provide contractual partners with core protections against abuse. The objective: regulations designed to be simple and efficient in implementation and accessible

TABLE 2.1 *Doing Business* methodology allows an objective but limited global comparison

Advantages	Limitations
<i>Transparent, based on factual information about laws and regulations (with an element of judgment on time estimates)</i>	<i>Limited in scope: focuses on 11 areas of regulation affecting local businesses; does not measure all aspects of business environment or all areas of regulation</i>
<i>Comparison and benchmarking valid thanks to standard assumptions</i>	<i>Based on standardized case: transactions described in case scenario refer to specific set of issues and type of company</i>
<i>Inexpensive and easily replicable</i>	<i>Focuses on formal sector</i>
<i>Actionable: data highlight extent of specific obstacles, identify source, point to what might be changed</i>	<i>Only reforms related to indicators can be tracked</i>
<i>Multiple interactions with local respondents to clarify potential misinterpretation</i>	<i>Assumes that business has full information on what is required and does not waste time when completing procedures</i>
<i>Nearly complete coverage of world's economies</i>	<i>Part of data obtained refer to an economy's largest business city only</i>

to all who need to use them. Accordingly, some *Doing Business* indicators give a higher score for more regulation, such as stricter disclosure requirements in related-party transactions. Some give a higher score for a simplified way of implementing existing regulation, such as completing business start-up formalities in a one-stop shop.

The *Doing Business* project encompasses 2 types of data. The first come from readings of laws and regulations by both the local expert respondents and *Doing Business*. The second are time-and-motion indicators that measure the efficiency in achieving a regulatory goal (such as granting the legal identity of a business). Within the time-and-motion indicators, cost estimates are recorded from official fee schedules where applicable. A regulatory process such as starting a business or registering property is broken down into clearly defined steps and procedures. The time estimates for each procedure are based on the informed judgment of expert respondents who routinely administer or advise on the relevant regulations.⁴ Here, *Doing Business* builds on Hernando de Soto's pioneering work in applying the time-and-motion approach first used by Frederick Taylor to revolutionize the production of the Model T Ford. De Soto used the approach in the 1980s to show the obstacles to setting up a garment factory on the outskirts of Lima.⁵

WHAT DOING BUSINESS DOES NOT COVER

Just as important as knowing what *Doing Business* does is to know what it does not do—to understand what limitations must be kept in mind in interpreting the data.

Limited in scope

Doing Business focuses on 11 topics, with the specific aim of measuring the regulation relevant to the life cycle of a domestic firm (table 2.2). Accordingly:

- *Doing Business* does not measure all aspects of the business environment that matter to firms or investors—or all factors that affect competitiveness. It does not, for example, measure security, corruption, market size, macroeconomic stability, the state of the financial system, the labor skills of the population or all aspects of the quality of infrastructure. Nor does it focus on regulations specific to foreign investment.
- While *Doing Business* focuses on the quality of the regulatory framework, it is not all-inclusive; it does not cover all regulations in any economy. As economies and technology advance, more areas of economic activity are being regulated. For example, the European Union's body of laws (*acquis*) has now grown to no fewer than 14,500 rule sets. *Doing Business*

covers 11 areas of a company's life cycle, through 11 specific sets of indicators. These indicator sets do not cover all aspects of regulation in the area of focus. For example, the indicators on starting a business or protecting investors do not cover all aspects of commercial legislation. The employing workers indicators do not cover all areas of labor regulation. The current set of indicators does not, for example, include measures of regulations addressing safety at work or the right of collective bargaining.

- *Doing Business* also 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 is a cost to business. The indicators do not measure, nor are they intended to measure, 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.

Based on standardized case scenarios

Doing Business indicators are built on the basis of standardized case scenarios with specific assumptions, such as the business being located in the largest business city of the economy. Economic indicators commonly make limiting assumptions of this kind. Inflation statistics, for example, are often based on prices of a set of consumer goods in a few urban areas.

Such assumptions allow global coverage and enhance comparability. But they come at the expense of generality. *Doing Business* recognizes the limitations of including data on only the largest business city. Business regulation and its enforcement, particularly in federal states and large economies, may differ across the country. Recognizing governments' interest in such variation, *Doing Business* has complemented its global indicators with subnational studies in a range of economies (box 2.1). This year *Doing Business* also conducted a pilot study on the second largest city in 3 large economies to assess within-country variations.

TABLE 2.2 *Doing Business*—measuring 11 areas of business regulation

Start-up	Expansion	Operations	Insolvency
<ul style="list-style-type: none"> • Starting a business <i>Minimum capital requirement</i> <i>Procedures, time and cost</i> 	<ul style="list-style-type: none"> • Registering property <i>Procedures, time and cost</i> • Getting credit <i>Credit information systems</i> <i>Movable collateral laws</i> • Protecting investors <i>Disclosure and liability in related-party transactions</i> • Enforcing contracts <i>Procedures, time and cost to resolve a commercial dispute</i> 	<ul style="list-style-type: none"> • Dealing with construction permits <i>Procedures, time and cost</i> • Getting electricity <i>Procedures, time and cost</i> • Paying taxes <i>Payments, time and total tax rate</i> • Trading across borders <i>Documents, time and cost</i> • Employing workers 	<ul style="list-style-type: none"> • Resolving insolvency <i>Time, cost and recovery rate</i>

In areas where regulation is complex and highly differentiated, the standardized case used to construct the *Doing Business* indicator needs to be carefully defined. Where relevant, the standardized case assumes a limited liability company or its legal equivalent. This choice is in part empirical: private, limited liability companies are the most prevalent business form in many economies around the world. The choice also reflects one focus of *Doing Business*: expanding opportunities for entrepreneurship. Investors are encouraged to venture into business when potential losses are limited to their capital participation.

Focused on the formal sector

In constructing the indicators, *Doing Business* assumes that entrepreneurs are knowledgeable about all regulations in place and comply with them. In practice, entrepreneurs may spend considerable time finding out where to go and what documents to submit. Or they may avoid legally required procedures altogether—by not registering for social security, for example.

Where regulation is particularly onerous, levels of informality are higher. Informality comes at a cost: firms in the informal sector typically grow more slowly, have poorer access to credit and employ fewer workers—and their workers remain outside the protections of labor law.⁶ All this may be even more so for female-owned businesses, according to country-specific research.⁷ Firms in the informal sector are also less likely to pay taxes. *Doing Business* measures one set of factors that help explain the occurrence of informality and give policy makers insights into potential areas of regulatory reform. Gaining a fuller understanding of the broader business environment, and a broader perspective on policy challenges, requires combining insights from *Doing Business* with data from other sources, such as the World Bank Enterprise Surveys.⁸

WHY THIS FOCUS

Doing Business functions as a kind of cholesterol test for the regulatory environment for domestic businesses. A cholesterol test does not tell us everything about the state of

our health. But it does measure something important for our health. And it puts us on watch to change behaviors in ways that will improve not only our cholesterol rating but also our overall health.

One way to test whether *Doing Business* serves as a proxy for the broader business environment and for competitiveness is to look at correlations between the *Doing Business* rankings and other major economic benchmarks. Closest to *Doing Business* in what it measures is the set of indicators on product market regulation compiled by the Organisation for Economic Co-operation and Development (OECD). These indicators are designed to help assess the extent to which the regulatory environment promotes or inhibits competition. They include measures of the extent of price controls, the licensing and permit system, the degree of simplification of rules and procedures, the administrative burdens and legal and regulatory barriers, the prevalence of discriminatory procedures and the degree of government control over business enterprises.⁹ The rankings on these indicators—for the 39 countries that are

BOX 2.1 Comparing regulation within economies: subnational *Doing Business* indicators and a multicity pilot study

Subnational *Doing Business* studies are conducted at the request of a government and capture differences in business regulation across cities within the same economy or region. They build local capacity by involving government partners and local think tanks. Since 2005 subnational *Doing Business* reports have compared business regulation in states and cities within such economies as Brazil, China, Colombia, Egypt, India, Indonesia, Kenya, Mexico, Morocco, Nigeria, Pakistan and the Philippines.¹

Subnational studies increasingly are being periodically updated to measure progress over time or to expand geographic coverage to additional cities. This year that is the case for the subnational studies in the Philippines; the regional report in Southeast Europe; the ongoing studies in Italy, Kenya and the United Arab Emirates; and the projects implemented jointly with local think tanks in Indonesia, Mexico and the Russian Federation.

In 2011 *Doing Business* published subnational indicators for the Philippines and a regional report for 7 economies in Southeast Europe (Albania, Bosnia and Herzegovina, Kosovo, FYR Macedonia, Moldova, Montenegro and Serbia) that covers 22 cities. It also published a city profile for Juba, in the Republic of South Sudan.

To further explore variations in business regulation within economies, *Doing Business* this year collected data on all 10 indicator sets included in the ease of doing business ranking in an additional city in 3 large economies: 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). Subnational studies usually cover only a subset of indicators.

The results show 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 do differ across cities, because of differences either in local regulations or in the capacity of institutions to respond to business 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).

1. Subnational reports are available on the *Doing Business* website at <http://www.doingbusiness.org/reports/subnational-reports>.

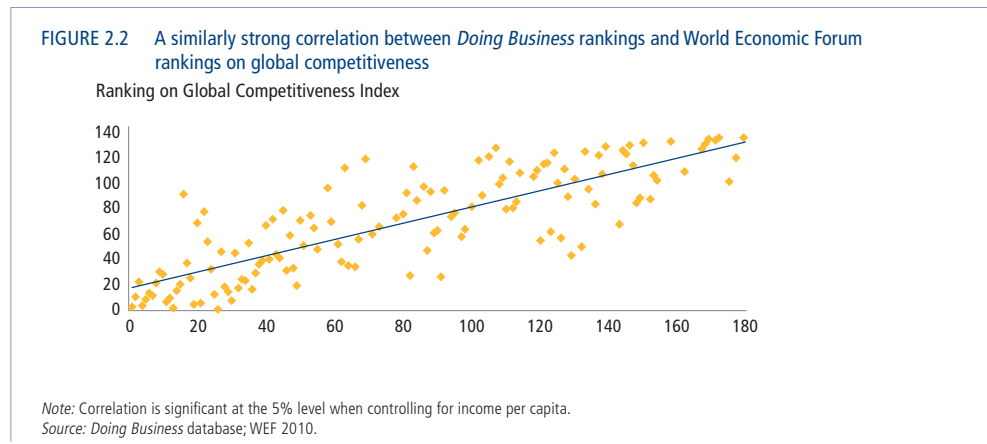
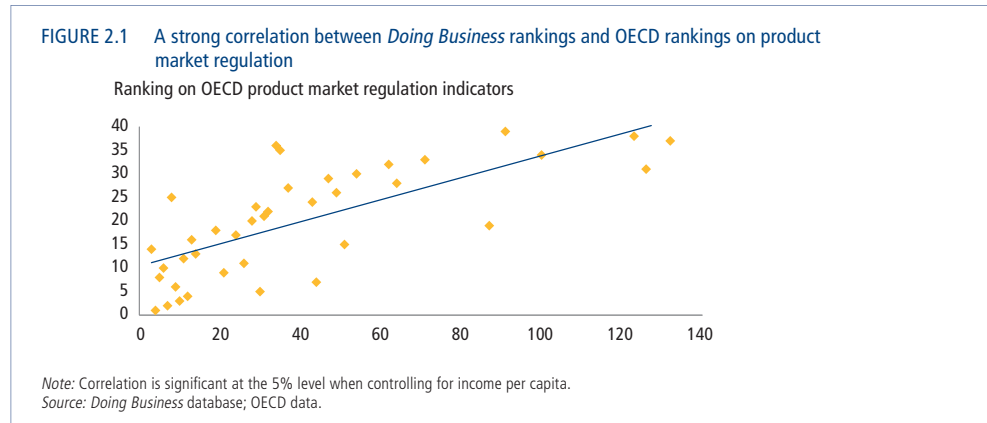
covered, several of them large emerging markets—are highly correlated with those on the ease of doing business (the correlation here is 0.72; figure 2.1).

Similarly, there is a high correlation (0.82) between the rankings on the ease of doing business and those on the World Economic Forum's Global Competitiveness Index, a much broader measure capturing such factors as macroeconomic stability, aspects of human capital, the soundness of public institutions and the sophistication of the business community (figure 2.2).¹⁰ Economies that do well on the *Doing Business* indicators tend to do well on the OECD market regulation indicators and the Global Competitiveness Index and vice versa.

A bigger question is whether the issues on which *Doing Business* focuses matter for development and poverty reduction. The World Bank study *Voices of the Poor* asked 60,000 poor people around the world how they thought they might escape poverty.¹¹ The answers were unequivocal: women and men alike pin their hopes above all on income from their own business or wages earned in employment. Enabling growth—and ensuring that poor people can participate in its benefits—requires an environment where new entrants with drive and good ideas, regardless of their gender or ethnic origin, can get started in business and where good firms can invest and grow, generating more jobs.

Small and medium-size enterprises are key drivers of competition, growth and job creation, particularly in developing economies. But in these economies up to 80% of economic activity takes place in the informal sector. Firms may be prevented from entering the formal sector by excessive bureaucracy and regulation. Even firms operating in the formal sector might not have equal access to transparent rules and regulations affecting their ability to compete, innovate and grow.

Where regulation is burdensome and competition limited, success tends to depend more on whom you know than on what you can do.¹² But where regulation is transparent, efficient and implemented in a simple way, it becomes easier for any aspiring entrepreneurs, regardless of their connections, to



operate within the rule of law and to benefit from the opportunities and protections that the law provides. Not surprisingly, higher rankings on the ease of doing business—based on 10 areas of business regulation measured by *Doing Business*—are correlated with better governance and lower levels of perceived corruption.¹³

In this sense *Doing Business* values good rules as a key to social inclusion. It also provides a basis for studying effects of regulations and their application. For example, *Doing Business 2004* found that faster contract enforcement was associated with perceptions of greater judicial fairness—suggesting that justice delayed is justice denied.¹⁴

DOING BUSINESS AS A BENCHMARKING EXERCISE

Doing Business, in capturing some key dimensions of regulatory regimes, has been found useful for benchmarking—an aspect allowing decision makers to make more

considered judgments on the policy options available, enhancing the ability to assess progress over time and make meaningful international comparisons, and contributing to public debate and the promotion of greater accountability.

Since 2006 *Doing Business* has provided 2 takes on the data it collects: it presents “absolute” indicators for each economy for each of the 11 regulatory topics it addresses, and it provides rankings of economies for 10 topics, both by topic and in aggregate.¹⁵ In addition, as noted in the executive summary, this year’s report introduces a new measure—the distance to frontier measure—that illustrates how an economy’s regulatory environment has changed over time.¹⁶ Judgment is required in interpreting all these measures for any economy and in determining a sensible and politically feasible path for regulatory reform.

Reviewing the *Doing Business* rankings in isolation may reveal unexpected results. Some economies may rank unexpectedly high on

some topics. And some economies that have had rapid growth or attracted a great deal of investment may rank lower than others that appear to be less dynamic.

As economies develop, they strengthen and add to regulations to protect investor and property rights. Meanwhile, they find more efficient ways to implement existing regulations and cut outdated ones. One finding of *Doing Business*: dynamic and growing economies continually reform and update their business regulations and their way of implementing them, while many poor economies still work with regulatory systems dating to the late 1800s.

For reform-minded governments, how much the regulatory environment for local entrepreneurs improves in absolute terms matters more than their economy's relative ranking on the overall ease of doing business. The distance to frontier measure aids in assessing such improvements over time by showing the distance of each economy to the "frontier," which represents the highest performance observed on each of the *Doing Business* indicators across all economies and years included since 2005. Comparing the measure for an economy at 2 points in time allows users to assess how much the economy's regulatory environment as measured by *Doing Business* has changed over time—how far it has moved toward (or away from) the most efficient practices and strongest regulations in the areas covered by *Doing Business*. The distance to frontier measure complements the yearly ease of doing business rankings that compare economies with one another at a point in time.

Each indicator set covered by *Doing Business* measures a different aspect of the business regulatory environment. The rankings of each economy vary, sometimes significantly, across the indicator sets. A quick way to assess the variability of an economy's regulatory performance across the different areas of business regulation is to look at the topic rankings (see the country tables). Korea, for example, stands at 8 in the overall ease of doing business ranking. Its ranking is 2 on the ease of enforcing contracts, 4 on the ease of trading across borders and 8 on the ease of getting credit. At the same time, it

has a ranking of 24 on the ease of starting a business, 26 on the ease of dealing with construction permits, 38 on the ease of paying taxes and 71 on the ease of registering property. Variation in performance across the indicator sets reflects the different priorities that governments give to particular areas of business regulation as well as economy-specific circumstances that may allow a faster pace of reform in some areas than in others.

WHAT RESEARCH SHOWS ON THE EFFECTS OF BUSINESS REGULATION

Nine years of *Doing Business* data, together with other data sets, have enabled a growing body of research on how specific areas of business regulation—and regulatory reforms in those areas—relate to social and economic outcomes. Some 873 articles have been published in peer-reviewed academic journals, and about 2,332 working papers are available through Google Scholar.¹⁷

Much attention has been 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.¹⁸ Many studies have also looked at the role played by courts, credit bureaus, and insolvency and collateral laws in providing incentives for creditors and investors to increase access to credit. The literature has produced a range of findings.

Lower costs for business registration encourage entrepreneurship and enhance firm productivity. Economies with efficient business registration have a higher entry rate by new firms as well as greater business density.¹⁹ Economies where registering a new business takes less time have seen more businesses register in industries where the potential for growth is greatest, such as those that have experienced expansionary shifts in global demand or technology.²⁰ Reforms making it easier to start a business tend to have a significant positive effect on investment in product market industries such as transport, communications and utilities, which are often sheltered from competition.²¹ There is also evidence that more efficient business entry

regulations improve firm productivity and macroeconomic performance.²²

Simpler business registration translates into greater employment opportunities in the formal sector. Reducing start-up costs for new firms was found to result in higher take-up rates for education, higher rates of job creation for high-skilled labor and higher average productivity because new firms are often set up by high-skilled workers.²³ Lowering entry costs can boost legal certainty: businesses entering the formal sector gain access to the legal system, to the benefit of both themselves and their customers and suppliers.²⁴

Assessing the impact of policy reforms poses challenges. While cross-country correlations can appear strong, it is difficult to isolate the effect of regulations given all the other potential factors that vary at the country level. Generally, cross-country correlations do not show whether a specific outcome is caused by a specific regulation or whether it coincides with other factors, such as a more positive economic situation. So how do we know whether things would have been different without a specific regulatory reform? Some studies have been able to test this by investigating variations within an economy over time. Other studies have investigated policy changes that affected only certain firms or groups. Several country-specific impact studies conclude that simpler entry regulations encourage the establishment of more new firms:

- In Mexico one study found that a program that simplified municipal licensing led to a 5% increase in the number of registered businesses and a 2.2% increase in wage employment, while competition from new entrants lowered prices by 0.6% and the income of incumbent businesses by 3.2%.²⁵ Other research found that the same licensing reform directly led to a 4% increase in new start-ups and that the program was more effective in municipalities with less corruption and cheaper additional registration procedures.²⁶
- In India the progressive elimination of the "license raj" led to a 6% increase in new firm registrations, and highly productive firms entering the market saw larger increases in real output than less productive firms.²⁷ Simpler entry regulation and

labor market flexibility were found to be complementary. States with more flexible employment regulations saw a 25% larger decrease in informal firms and 17.8% larger gains in real output than states with less flexible labor regulations.²⁸ The same licensing reform led to an aggregate productivity improvement of around 22% for firms affected by the reform.²⁹

- In Colombia new firm registrations increased by 5.2% after the creation of a one-stop shop for businesses.³⁰
- In Portugal the introduction of a one-stop shop for businesses led to a 17% increase in new firm registrations and 7 new jobs for every 100,000 inhabitants compared with economies that did not implement the reform.³¹

A sound regulatory environment leads to stronger trade performance. Efforts to streamline the institutional environment for trade (such as by increasing the efficiency of customs) have been shown to have positive effects on trade volumes.³² One study found that an inefficient trade environment was among the main factors in poor trade performance in Sub-Saharan African countries.³³ Similarly, another study identified the government's ability to formulate and implement sound policies and regulations that promote private sector development, customs efficiency, quality of infrastructure and access to finance as important factors in improving trade performance.³⁴ The same study found that economies with more constrained access to foreign markets benefit more from improvements in the investment climate than those with easier access.

Research also shows that an economy's ability to enforce contracts is an important determinant of its comparative advantage in the global economy: among comparable economies, those with good contract enforcement tend to produce and export more customized products than those with poor contract enforcement.³⁵ Another study shows that in many developing economies production of high-quality output is a precondition for firms to become exporters: institutional reforms that lower the cost of high-quality production increase the positive effect that trade facilitation can have on income.³⁶ Research shows that removing

barriers to trade needs to be accompanied by other reforms, such as making labor markets more flexible, to achieve higher productivity and growth.³⁷

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. Enterprise surveys conducted by the World Bank show that access to credit is a major constraint to businesses around the world.³⁸ Good credit information systems and strong collateral laws can help alleviate financing constraints. Analysis in 12 transition economies found that reforms strengthening collateral laws increased the supply of bank loans by 13.7% on average.³⁹ Creditor rights and the existence of credit registries, whether public or private, are both associated with a higher ratio of private credit to GDP.⁴⁰ And greater information sharing through credit bureaus is associated with higher bank profitability and lower bank risk.⁴¹

Country-specific research assessed the effect of efficient debt recovery and exit processes in determining conditions of credit and in ensuring that less productive firms are either restructured or exit the market:

- The establishment of specialized debt recovery tribunals in India sped up the resolution of debt recovery claims and allowed lenders to seize more collateral on defaulting loans. It also increased the probability of repayment by 28% and lowered interest rates on loans by 1–2 percentage points.⁴²
- Following a broad bankruptcy reform in Brazil in 2005 that, among other things, improved the protection of creditors, the cost of debt fell by 22% and the aggregate level of credit rose by 39%.⁴³
- The introduction of improved insolvency regimes that streamlined mechanisms for reorganization reduced the number of liquidations by 8.4% in Belgium and by 13.6% in Colombia as more viable firms opted for reorganization instead.⁴⁴ In Colombia the new law better distinguished viable from nonviable firms, making survival more likely for financially distressed but viable firms.

HOW GOVERNMENTS USE DOING BUSINESS

Quantitative data and benchmarking can be useful in stimulating debate about policy, both by exposing potential challenges and by identifying where policy makers might look for lessons and good practices. For governments, a common first reaction to the *Doing Business* data is to ask questions about the quality and relevance of the data and about how the results are calculated. Yet the debate typically proceeds to a deeper discussion exploring the relevance of the data to the economy and areas where business regulation reform might make sense.

Most reformers start out by seeking examples, and *Doing Business* helps in this (boxes 2.2 and 2.3). For example, Saudi Arabia used the company law of France as a model for revising its own. Many countries in Africa look to Mauritius—the region's strongest performer on *Doing Business* indicators—as a source of good practices for business regulation reform. In the words of Luis Guillermo Plata, the former minister of commerce, industry and tourism of Colombia,

It's not like baking a cake where you follow the recipe. No. We are all different. But we can take certain things, certain key lessons, and apply those lessons and see how they work in our environment.

Over the past 9 years there has been much activity by governments in reforming the regulatory environment for domestic businesses. Most reforms relating to *Doing Business* topics have been nested in broader programs of reform aimed at enhancing economic competitiveness, as in Colombia, Kenya and Liberia, for example. In structuring their reform programs for the business environment, governments use multiple data sources and indicators.⁴⁵ And reformers respond to many stakeholders and interest groups, all of whom bring important issues and concerns to the reform debate. World Bank Group dialogue with governments on the investment climate is designed to encourage critical use of the data, sharpening judgment, avoiding a narrow focus on improving *Doing Business* rankings and encouraging broad-based reforms that enhance the investment climate. The World

BOX 2.2 How economies have used *Doing Business* in regulatory reform programs

To ensure the coordination of efforts across agencies, such economies as Colombia and Rwanda have formed regulatory reform committees, reporting directly to the president, that use the *Doing Business* indicators as one input to inform their programs for improving the business environment. More than 25 other economies have formed such committees at the interministerial level. These include economies across regions: In East and South Asia, India; Malaysia; Sri Lanka; Taiwan, China; Thailand; and Vietnam. In the Middle East and North Africa, Egypt; Morocco; Saudi Arabia; the United Arab Emirates; and the Republic of Yemen. In Eastern Europe and Central Asia, Georgia; Kazakhstan; the Kyrgyz Republic; Moldova; and Tajikistan. In Sub-Saharan Africa, Botswana; Burundi; the Central African Republic; the Comoros; the Democratic Republic of Congo; Kenya; Liberia; Malawi; Mali; and Zambia. And in Latin America, Guatemala; Mexico; and Peru. Governments have reported more than 300 regulatory reforms that have been informed by *Doing Business* since 2003.

BOX 2.3 How a regional economic forum uses *Doing Business*

The Asia-Pacific Economic Cooperation (APEC) organization uses *Doing Business* to identify potential areas of regulatory reform, to champion economies that can help others improve and to set measurable targets. In 2009 APEC launched the Ease of *Doing Business* Action Plan with the goal of making it 25% cheaper, faster and easier to do business in the region by 2015.¹ The action plan sets specific targets, such as making it 25% faster to start a business by reducing the average time by 1 week.

Drawing on a firm survey, planners identified 5 priority areas: starting a business, getting credit, enforcing contracts, trading across borders and dealing with construction permits. APEC economies then selected 6 “champion economies” for the priority areas: New Zealand and the United States (starting a business), Japan (getting credit), Korea (enforcing contracts), Singapore (trading across borders) and Hong Kong SAR, China (dealing with construction permits). In 2010 and 2011 several of the champion economies organized workshops to develop programs for building capacity in their area of expertise.

1. APEC 2010.

Bank Group uses a vast range of indicators and analytics in this policy dialogue, including its Global Poverty Monitoring indicators, World Development Indicators, Logistics Performance Indicators and many others. With the open data initiative, all indicators and data are available to the public at <http://data.worldbank.org>.

METHODOLOGY AND DATA

Doing Business covers 183 economies—including small economies and some of the poorest economies, for which little or no data are available in other data sets. The *Doing Business* data are based on domestic laws and regulations as well as administrative requirements. (For a detailed explanation of the *Doing Business* methodology, see the data notes.)

Information sources for the data

Most of the *Doing Business* indicators are based on laws and regulations. In addition, most of the cost indicators are backed by official fee schedules. *Doing Business* respondents both fill out written questionnaires and provide references to the relevant laws, regulations and fee schedules, aiding data checking and quality assurance. Having representative samples of respondents is not an issue, as the texts of the relevant laws and regulations are collected and answers checked for accuracy.

For some indicators—for example, those on dealing with construction permits, enforcing contracts and resolving insolvency—the time component and part of the cost component (where fee schedules are lacking) are based on actual practice rather than the law on the books. This introduces a degree of judgment. The *Doing Business* approach has therefore been to work with legal practitioners or professionals who regularly undertake the transactions involved. Following the standard methodological approach for time-and-motion studies, *Doing Business* breaks down each process or transaction, such as starting and legally operating a business, into separate steps to ensure a better estimate of time. The time estimate for each step is given by practitioners with significant and routine experience in the transaction.

The *Doing Business* approach to data collection contrasts with that of firm surveys, which capture often one-time perceptions and experiences of businesses. A corporate lawyer registering 100–150 businesses a year will be more familiar with the process than an entrepreneur, who will register a business only once or maybe twice. A bankruptcy attorney or judge dealing with dozens of cases a year will have more insight into bankruptcy than a manager of a company who may have never undergone the process.

Doing Business respondents

Over the past 9 years more than 12,000 professionals in 183 economies have assisted in providing the data that inform the *Doing Business* indicators. This year’s report draws on the inputs of more than 9,000 professionals. Table 4.1 in the data notes lists the number of respondents for each indicator set. The *Doing Business* website indicates the number of respondents for each economy and each indicator. Respondents are professionals or government officials who routinely administer or advise on the legal and regulatory requirements covered in each *Doing Business* topic. They are selected on the basis of their expertise in the specific areas covered by *Doing Business*. Because of the focus on legal and regulatory arrangements, most of the respondents are legal professionals such as lawyers, judges or notaries. The credit information survey is answered by officials of the credit registry or bureau. Freight forwarders, accountants, architects and other professionals answer the surveys related to trading across borders, taxes and construction permits.

Development of the methodology

The methodology for calculating each indicator is transparent, objective and easily replicable. Leading academics collaborated in the development of the indicators, ensuring academic rigor. Eight of the background papers underlying the indicators have been published in leading economic journals.⁴⁶

Doing Business uses a simple averaging approach for weighting component indicators and calculating rankings. Other approaches were explored, including using principal components and unobserved components.⁴⁷ They turn out to yield results nearly identical

to those of simple averaging. Thus *Doing Business* uses the simplest method: weighting all topics equally and, within each topic, giving equal weight to each of the topic components.⁴⁸

Inclusion of getting electricity indicators

This year's ease of doing business ranking includes getting electricity as a new topic. The getting electricity indicators were introduced as a pilot in *Doing Business 2010* and *Doing Business 2011*, which presented the results in an annex. During the pilot phase the methodology was reviewed by experts, and data on the time, cost and procedures to obtain an electricity connection were collected for the full set of 183 economies. To avoid double counting, procedures related to getting an electricity connection have been removed from the dealing with construction permits indicators.⁴⁹

Improvements to the methodology

The methodology has undergone continual improvement over the years.⁵⁰ Changes have been made mainly in response to suggestions providing new insights. For enforcing contracts, for example, the amount of the disputed claim in the case study was increased from 50% to 200% of income per capita after the first year of data collection, as it became clear that smaller claims were unlikely to go to court.

Another change relates to starting a business. The minimum capital requirement can be an obstacle for potential entrepreneurs. Initially *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 actual potential barrier to entry, the paid-in minimum capital has been used rather than the required minimum capital.

This year's report includes improvements in the methodology for the employing workers indicators and the getting credit (legal rights) indicators, in addition to the removal of the procedures related to getting an electricity connection from the dealing with construction permits indicators. It also

includes changes in the ranking methodology for paying taxes.

Employing workers methodology. With the aim of better capturing the balance between worker protection and efficient employment regulation that favors job creation, *Doing Business* has made a series of amendments to the methodology for the employing workers indicators over the past 4 years.

In addition, the World Bank Group has been working with a consultative group—including labor lawyers, employer and employee representatives, and experts from civil society, the private sector, the International Labour Organization (ILO) and the OECD—to review the methodology and explore future areas of research.⁵¹ The consultative group completed its work this year, and its guidance has provided the basis for several changes in methodology (see also the data notes). A full report with the conclusions of the consultative group is available on the *Doing Business* website.⁵²

Follow-on work is continuing to explore the measurement of worker protection to complement the measurement of the cost to employers of labor regulations. The data on worker protection will serve as a basis for the development of a joint analysis of worker protection by the World Bank Group and the ILO.

Pending further progress on research in this area, this year's report does not present rankings of economies on the employing workers indicators or include the topic in the aggregate ranking on the ease of doing business. It does present the data on the employing workers indicators. Additional data on labor regulations collected in 183 economies are available on the *Doing Business* website.⁵³

Paying taxes methodology. *Doing Business* has benefited from dialogue with external stakeholders, including participants in the International Tax Dialogue, on the survey instrument and methodology for the paying taxes indicators. As a result of these consultations, this year's report introduces a threshold for the total tax rate for the purpose of calculating the ranking on the ease of paying taxes. All economies with a total tax rate below the threshold (which

will be calculated and adjusted on a yearly basis) will now receive the same ranking on the total tax rate indicator. Since the total tax rate is 1 of 32 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%.

The threshold is not based on any underlying theory. Instead, it 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. 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 that are rich in natural resources do not need to levy broad-based taxes. For more details on the calculation of the threshold, see the data notes.

In addition, this year *Doing Business* collected data on labor taxes and social security contributions paid by employees as well as employers. These data will be made available on the *Doing Business* website to enable analysis of the distribution of these contributions between employers and employees.

Getting credit methodology. The strength of legal rights index measures certain rights of borrowers and lenders with respect to secured transactions. The index describes how well collateral and bankruptcy laws facilitate lending by measuring 10 aspects of these laws.

One aspect of collateral law that is measured relates to whether secured creditors can continue individual court actions after a debtor starts a court-supervised reorganization procedure or whether they are subject to an automatic stay or a moratorium. Previously only economies where secured creditors can continue a court action in these circumstances were rewarded in the scoring for the strength of legal rights index. Now economies where secured creditors must stop individual court actions but their rights remain protected through other means are

also rewarded (see the data notes for more details). The change aligns the methodology for this indicator with guidelines of the United Nations Commission on International Trade Law (UNCITRAL) and the World Bank Group.

Data adjustments

All changes in methodology are explained in the data notes as well as on the *Doing Business* 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. To provide a comparable time series for research, the data set is back-calculated to adjust for changes in methodology and any revisions in data due to corrections. The data set is not back-calculated for year-to-year changes in income per capita. The website also makes available all original data sets used for background papers.

Information on data corrections is provided in the data notes and on the website. A transparent complaint procedure allows anyone to challenge the data. If errors are confirmed after a data verification process, they are expeditiously corrected.

NOTES

1. For more details on how the aggregate rankings are created, see the chapter on the ease of doing business and distance to frontier.
2. This has included a review by the World Bank Independent Evaluation Group (2008) as well as ongoing input from the International Tax Dialogue.
3. The resolving insolvency indicators measure the time, cost and outcome of insolvency proceedings involving domestic entities. In previous reports this indicator set was referred to as closing a business. *Resolving insolvency* more accurately reflects the outcomes that are measured: a judicial procedure aimed at reorganization or rehabilitation, a judicial procedure aimed at liquidation or winding up, and debt enforcement or foreclosure (in or outside the courts).
4. Local experts in 183 economies are surveyed annually to collect and update the data. The local experts for each economy are listed on the *Doing Business* website (<http://www.doingbusiness.org>).
5. De Soto 2000.
6. Schneider 2005; La Porta and Shleifer 2008.
7. Amin 2011.

8. <http://www.enterprisesurveys.org>.
9. OECD, "Indicators of Product Market Regulation," <http://www.oecd.org/>. The measures are aggregated into 3 broad families that capture state control, barriers to entrepreneurship and barriers to international trade and investment. The 39 countries included in the OECD market regulation indicators are Australia, Austria, Belgium, Brazil, Canada, Chile, China, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, India, Ireland, Israel, Italy, Japan, Korea, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, Russia, the Slovak Republic, Slovenia, South Africa, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States.
10. The World Economic Forum's *Global Competitiveness Report* uses *Doing Business* data sets on starting a business, employing workers, protecting investors and getting credit (legal rights), representing 7 of a total of 113 different indicators (or 6.2%).
11. Narayan and others 2000.
12. Hallward-Driemeier, Khun-Jush and Pritchett (2010) analyze data from World Bank Enterprise Surveys for Sub-Saharan Africa and show that broadly de jure measures such as *Doing Business* indicators are not correlated with ex post firm-level responses. While countries that do better according to *Doing Business* generally perform better on enterprise surveys, for the majority of economies in the sample there is no correlation. Further, the authors find that the gap between de jure and de facto conditions grows with the formal regulatory burden. This suggests that more burdensome processes in Africa open up more space for making deals and that firms may not incur the official costs of compliance, but they still pay to avoid them. A few differences in the underlying methodologies should be kept in mind. The *Doing Business* methodology focuses on the main business city, while enterprise surveys typically cover the entire country. *Doing Business* gathers the considered views of experts who examine the laws and rules underlying the business regulatory framework in a narrow set of areas; enterprise surveys collect the views of enterprise managers and the question posed to the manager is seldom identical to the one being addressed by *Doing Business* contributors, which is in reference to a particular standardized case. World Bank Enterprise Surveys, available at <http://www.enterprisesurveys.org>, collect business data on more than 100,000 firms in 125 economies, covering a broad range of business environment topics.
13. The correlation coefficient between the ease of doing business ranking and the ranking on the Control of Corruption Index is 0.62, and that between the ease of doing business ranking and the ranking on the Transparency International Corruption Perceptions Index 0.77. The positive correlation is statistically significant at the 5% level.
14. World Bank 2003.
15. This year's report does not present rankings of economies on the employing workers indicators. Nor does it include this topic in the aggregate ranking on the ease of doing business.
16. For further details on the construction of the indicators, the aggregate rankings and the distance to frontier measure, see the data notes and the chapter on the ease of doing business and distance to frontier.
17. According to searches on Google Scholar (<http://scholar.google.com>) and the Social Science Citation Index.
18. Djankov and others 2002; Alesina and others 2005; Perotti and Volpin 2005; Klapper, Laeven and Rajan 2006; Fisman and Sarría-Allende 2010; Antunes and Cavalcanti 2007; Barseghyan 2008; Eifert 2009; Klapper, Lewin and Quesada Delgado 2009; Djankov, Freund and Pham 2010; Klapper and Love 2011; Chari 2011; Bruhn 2011.
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 Sérvén 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. Bruhn 2011.
26. Kaplan, Piedra and Seira 2007.
27. Aghion and others 2008.
28. Sharma 2009.
29. Chari 2011.
30. Cardenas and Roza 2009.
31. Branstetter and others 2010.
32. Djankov, Freund and Pham 2010.
33. Iwanow and Kirkpatrick 2009.
34. Seker 2011.
35. Nunn 2007.
36. Rauch 2010.
37. Chang, Kaltani and Loayza 2009; Cuiat and Melitz 2007.
38. <http://www.enterprisesurveys.org>.

39. 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.
40. Djankov, McLiesh and Shleifer 2007; Houston and others 2010.
41. Djankov, McLiesh and Shleifer 2007; Houston and others 2010.
42. Visaria 2009.
43. Funchal 2008.
44. Dewaelheyns and Van Hulle (2008) on Belgium; Giné and Love (2010) on Colombia.
45. One recent study using *Doing Business* indicators illustrates the difficulties in using highly disaggregated indicators to identify reform priorities (Kraay and Tawara 2011).
46. All background papers are available on the *Doing Business* website (<http://www.doingbusiness.org>).
47. For more details, see the chapter on the ease of doing business and distance to frontier.
48. A technical note on the different aggregation and weighting methods is available on the *Doing Business* website (<http://www.doingbusiness.org>).
49. Previous years' data on dealing with construction permits are adjusted to reflect this change. They are made available on the *Doing Business* website under "historical data" (<http://www.doingbusiness.org>).
50. All changes in methodology are explained in the data notes in this year's report and in previous years' reports back to *Doing Business 2007* (data notes and previous years' reports are available at <http://www.doingbusiness.org>).
51. For the terms of reference and composition of the consultative group, see World Bank, "Doing Business Employing Workers Indicator Consultative Group," <http://www.doingbusiness.org>.
52. <http://www.doingbusiness.org/methodology/employing-workers>.
53. <http://www.doingbusiness.org>.