Doing Business 2017
Equal Opportunity for All

Comparing Business Regulation for Domestic Firms in 190 Economies
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Doing Business 2017 is the 14th in a series of annual reports investigating the regulations that enhance business activity and those that constrain it. Doing Business presents quantitative indicators on business regulation and the protection of property rights that can be compared across 190 economies—from Afghanistan to Zimbabwe—and over time.

Doing Business measures aspects of regulation affecting 11 areas of the life of a business. Ten of these areas are included in this year’s ranking on the ease of doing business: starting a business, dealing with construction permits, getting electricity, registering property, getting credit, protecting minority investors, paying taxes, trading across borders, enforcing contracts, and resolving insolvency. Doing Business also measures features of labor market regulation, which is not included in the ranking.

Data in Doing Business 2017 are current as of June 1, 2016. The indicators are used to analyze economic outcomes and identify what reforms of business regulation have worked, where and why.
Now in its 14th edition, the Doing Business report demonstrates the power of a simple idea: measure and report the actual effect of a government policy.

In the summer of 1983, a group of researchers working with Hernando de Soto got all the permits required to open a small garment business on the outskirts of Lima, Peru. Their goal was to measure how long this took. I read de Soto’s book, The Other Path, decades ago, but I was so astonished by the answer it reported that I remember it today: 289 days.

De Soto’s conjecture, which turned out to be right, was that measuring and reporting would create pressure for improvements in the efficiency of government. In the foreword to the revised edition of his book that he wrote in 2002, de Soto reports that because of changes to regulations and procedures, the same business could get all the required permits in a single day.

In a letter published in the Winter 2006 issue of the Journal of Economic Perspectives, Simeon Djankov describes how de Soto’s idea grew into this report. When Joseph Stiglitz was the World Bank Chief Economist, he selected the topic and picked the team for The World Development Report 2002: Building Institutions for Markets. Djankov, who was a member of this team, reached out to Andrei Shleifer, a professor at Harvard, who had done research on the effects that different legal systems had on market development. Shleifer and co-authors agreed to work on some background papers for the World Development Report that would examine new data on such processes as getting the permits to start a new business that could be compared across countries. In 2003, this data collection effort yielded the first Doing Business report, which presented five indicators for 133 countries.

The Doing Business report has had the same effect on policy in many economies that de Soto’s initial effort had in Peru. In 2005, it was possible to get the permits to start a business in less than 20 days in only 41 economies. In 2016, this is possible in 130 economies. This history should give us the optimism and impatience to keep launching new ideas and to keep striving for better results. The progress to date should give us optimism. The large amount that remains to be done should make us impatient.

Doing Business 2017 highlights the large disparities between high- and low-income economies and the higher barriers that women face to starting a business or getting a job compared to men. In 155 economies women do not have the same legal rights as men, much less the supporting environment that is vital to promote entrepreneurship. Doing Business 2017 gives prominence to these issues, expanding three indicators—starting a business, registering property and enforcing contracts—to account for gender discriminatory practices. But why the gender focus?

Research shows that gender gaps exist in women’s access to economic opportunities. While women represent 49.6% of the world’s population, they account
for only 40.8% of the formal workforce. In emerging markets between 31 and 38% of formal small and medium-size enterprises have at least one woman owner, but their average growth rate is significantly lower than that of male-owned firms. Gender gaps in women’s entrepreneurship and labor force participation account for an estimated total income loss of 27% in the Middle East and North Africa, a 19% loss in South Asia, a 14% loss in Latin America and the Caribbean and a 10% loss in Europe. Globally, if all women were to be excluded from the labor force income per capita would be reduced by almost 40%.

To capture ways in which governments set additional hurdles for women entrepreneurs, Doing Business 2017 considers for the first time a number of gender-specific scenarios. The area of company incorporation, for example, now explores whether companies owned by women have the same registration requirements as companies owned by men. It finds that in some economies women must submit additional paperwork or authorizations from their husbands. In the case of property transfers there is a new focus on property ownership and how different sets of rights between men and women affect female entrepreneurs’ access to credit. Finally, when it comes to gender equality in court, the enforcing contracts indicator now highlights places where a woman’s testimony is given less weight in court than a man’s, thereby putting her at a fundamental disadvantage in commercial dealings. Doing Business now incorporates these considerations to better reflect the ease of doing business for the widest range of entrepreneurs in a given economy, female entrepreneurs included. The adjustments build on several years of methodology development and cross-country data collection by the Women, Business and the Law project, housed in the Global Indicators Group.

Doing Business 2017 also contains a discussion of the role business regulatory reform may play in the global goal to reduce income inequality. Of course there are many determinants of income inequality, including economic growth patterns, the levels and the quality of investments in human capital and the prevalence of bribery and corruption, among many others. Yet some are linked to the regulatory environment for entrepreneurship. Potential entrepreneurs are often discouraged from setting up businesses if the requirements to do so are overly burdensome. When this is the case entrepreneurs often resort to operating within the informal sector which has less protection for labor conditions and is more vulnerable to economic shocks. Having simple, transparent rules for registering a business, paying taxes, getting credit and registering property helps create a level playing field for doing business. Evidence from 175 economies reveals that economies with more stringent entry regulations often experience higher levels of income inequality as measured by the Gini index.

At its core, Doing Business seeks to provide quantitative measures of business regulation in 11 regulatory areas that are central to how the private sector functions. A growing body of literature shows that government action to create a sound, predictable regulatory environment is central to whether or not economies perform well and whether that performance is sustainable in the long run. Regulation can aid to correct and prevent traditional types of market failures, such as negative externalities, incomplete markets and information asymmetries. However, regulation can also be used as an intervention when market transactions have led to socially unacceptable outcomes such as improper wealth distribution and inequality. Governments have the ability to design and enforce regulation to help ensure the existence of a level playing field for citizens and economic actors within a society.

Business regulations are a specific type of regulation that can encourage growth and protect individuals in the private sector. The role of the private sector is now almost universally recognized as a key driver of economic growth and development. Nearly 90% of employment (including formal and informal jobs) occurs within the private sector—this sector has abundant potential that should be harnessed. Governments can work together with the private sector to create a thriving business environment. More specifically, effective business regulation can encourage firm start-up and growth as well as minimize the chance for market distortions or failures. Of course, a discussion of the benefits of business regulation must be accompanied by a parallel discussion of its costs. Many businesses complain about the negative impacts of excessive regulation—or as it is more commonly known, “red tape.” The answer is not always more regulation; rather, the more effective answer advocated by Doing Business is smarter regulation, that aims to strike a balance between the need to facilitate the activities of the private sector while providing adequate safeguards for the interests of consumers and other social groups.

More economies are taking up the challenge for reform. New Zealand is the economy with the highest ranking this year, taking over from Singapore. Sub-Saharan African economies are also improving their Doing Business scores at a rate that is three times that of OECD high-income economies. This rate of improvement reflects a low base, but is nonetheless encouraging. Indeed, over the past decade there has been more than a doubling in the number of countries in Sub-Saharan Africa that are engaged in one or more business regulatory reforms—a total of 37 economies in this year’s report. The overarching goal of Doing Business is to help entrepreneurs in low-income economies face the easier business conditions of their counterparts in high-income economies. The data show persuasively that it is facilitating that convergence, and for that we should celebrate.

The story I told above about an idea launched in 1983 in Peru by Hernando de Soto reminds us that ideas gain power as they pass from person to person,
each of whom improves, extends, or challenges the contributions of others. In the best case, this process of exchange and improvement connects professors in universities, employees of organizations such as the World Bank, government officials, members of civil society organizations, business owners and ordinary citizens. Ideas about improving our institutions will themselves improve only if they keep circulating through this network of people.

We welcome your continued feedback on the Doing Business project. As I start in the role of the World Bank’s Chief Economist, I am astonished by how much room for improvement there is in everything that people do. This heightens my sense of impatient optimism about the potential for meeting the Bank’s two goals: ending extreme poverty and promoting shared prosperity. Doing Business helps us make progress on one crucial strategy for meeting these goals—offering market opportunities to everyone. It should also inspire us to be more ambitious about how to carry out other complementary strategies. We depend on you, the reader, to help us shape, improve, extend and replicate this project. You keep its ideas in motion. You give them power.

Paul M. Romer  
Chief Economist and Senior Vice President  
The World Bank  
Washington, DC

NOTES

Overview

The opportunity to find a job or develop one’s business idea is crucial for most people’s personal satisfaction. It creates a sense of belonging and purpose and can provide an income that delivers financial stability. It can raise people out of poverty or prevent them from falling into it.

But what does one need to find a job or to start a business, especially if that job or business is in the private sector? Many things are needed, but well-functioning markets—that are properly regulated so that distortions are minimized—are crucial. Governments play a pivotal role in establishing these well-functioning markets through regulation. If the land registry is not required to provide reliable information on who owns what, for example, the efficacy of the property market is undermined making it difficult for entrepreneurs to acquire property, put their ideas to practice and create new jobs. Without well-regulated credit information sharing systems it is difficult for credit markets to thrive and be more inclusive. A properly functioning tax system is also key. Where the burden of tax administration is heavy—making it difficult to comply with tax obligations—firms will have an incentive to avoid paying all taxes due or may opt for informality, thereby eroding the tax base.

To start a business, entrepreneurs need a business registration system that is efficient and accessible to all. Doing Business data on Argentina, for example, show that it takes 14 procedures to start a new business, double the global average of just seven. So it is perhaps unsurprising that there are only 0.43 formal new businesses per 1,000 adults in Argentina. By contrast, in Georgia—where three procedures are sufficient to start a business—there are over 5.65 formal new businesses per 1,000 adults.

Failure is part of taking risks and innovating. For people to be willing to start a new business there needs to be a well-developed system in place for closing businesses that do not succeed. In addition to the complicated entry process in Argentina, if the business fails only 23 cents on the dollar are recovered after going through an insolvency proceeding. By contrast, in the Czech Republic the same business failure would have a recovery rate of 67 cents on the dollar. This higher recovery rate also helps to explain the larger number of new businesses in Prague (at 3.42 formal new businesses per 1,000 adults) than in Buenos Aires.

OLD AND NEW FACTORS COVERED IN DOING BUSINESS

Doing Business focuses on regulation that affects small and medium-size enterprises, operating in the largest business city of an economy, across 11 areas. Ten of these areas—starting a business, dealing with construction permits, getting electricity, registering property, getting credit, protecting minority investors, paying taxes, trading across borders, enforcing contracts, resolving insolvency—are included in the distance to frontier score.

Doing Business measures aspects of regulation that enable or prevent private sector businesses from starting, operating and expanding. These regulations are measured using 11 indicator sets: starting a business, dealing with construction permits, getting electricity, registering property, getting credit, protecting minority investors, paying taxes, trading across borders, enforcing contracts, resolving insolvency and labor market regulation.

Doing Business 2017 expands the paying taxes indicators to cover postfiling processes—tax audits, tax refunds and tax appeals—and presents analysis of pilot data on selling to the government which measures public procurement regulations.

Using the data originally developed by Women, Business and the Law, this year for the first time Doing Business adds a gender component to three indicators—starting a business, registering property, and enforcing contracts—and finds that those economies which limit women’s access in these areas have fewer women working in the private sector both as employers and employees.

New data show that there has been an increase in the pace of reform—more economies are reforming and implementing more reforms.

Doing Business has recorded over 2,900 regulatory reforms across 186 economies since 2004. Europe and Central Asia has consistently been the region with the highest average number of reforms per economy; the region is now close to having the same good practices in place as the OECD high-income economies. A number of countries in the region—Georgia, Latvia, Lithuania, and the former Yugoslav Republic of Macedonia—are now ranked among the top 30 economies in Doing Business.

Better performance in Doing Business is on average associated with lower levels of income inequality. This is particularly the case regarding the starting a business and resolving insolvency indicator sets.
and ease of doing business ranking. *Doing Business* also publishes indicators on labor market regulation which are not included in the distance to frontier score or ease of doing business ranking. The economic literature has shown the importance of such regulations for firm and job creation, international trade and financial inclusion. For more discussion on this literature, see the chapter About *Doing Business*.

Over time, *Doing Business* has evolved from focusing mainly on the efficiency of regulatory processes to also measure the quality of business regulation. *Doing Business* not only measures whether there is, for example, a fast, simple and affordable process for transferring property but also whether the land administration has systems in place that ensure the accuracy of the information about that transfer.

This year *Doing Business* expands further by adding postfiling processes to the paying taxes indicators, including a gender component in three of the indicators and developing a new pilot indicator set on selling to the government (figure 1.1). Also for the first time this year *Doing Business* collects data on Somalia, bringing the total number of economies covered to 190.

Although conceptually important, these changes have a small impact on the distance to frontier and the overall doing business ranking. In paying taxes, the new postfiling processes component accounts for only 25% of the overall indicator set and, furthermore, there is a positive correlation between the old and new part of the indicator. Economies that have efficient processes for paying taxes during the regular filing period also tend to have efficient processes in the postfiling period. For the most part, the formal regulatory environment as measured by *Doing Business* does not differentiate procedures according to the gender of the business owner. The addition of gender components to three separate indicators has a small impact on each of them and therefore a small impact overall. However, even if business regulation as measured by *Doing Business* is gender blind in the majority of economies, this does not mean that in practice men and women have equal opportunities as business owners. Firms owned by women, for example, tend to be smaller and less profitable than firms owned by men.

While economies that do well in the existing dimensions of the regulatory environment covered by *Doing Business* also tend to do well in the new aspects measured this year, it nevertheless is important to document regulatory practices in these new areas. Doing so helps to document standards of good practices in new areas of regulation which policy makers can use to chart out reforms and set benchmarks. For more information on the *Doing Business* methodology, see the data notes.

**FIGURE 1.1 What is changing in Doing Business?**

![Diagram showing changes in Doing Business](source: Doing Business database.)

### Taxes

The paying taxes indicator set is expanded this year to include postfiling processes—those processes that occur after a firm complies with its regular tax obligations. These include tax refunds, tax audits and tax appeals. In particular *Doing Business* measures the time it takes to get a value added tax (VAT) refund, deal with a simple mistake on a corporate income tax return that can potentially trigger an audit and good practices in administrative appeal processes.

The VAT refund is an integral component of a modern VAT system. The VAT has statutory incidence on the final consumer, not on businesses. According to the tax policy guidelines set out by the Organisation for Economic Co-operation and Development (OECD) a VAT system should be neutral and efficient. Some businesses will incur more VAT on their purchases than they collect on their taxable sales in a given tax period and therefore should be entitled to claim the difference from the tax authorities. *Doing Business* data show that OECD high-income economies process VAT refunds the most efficiently with an average of 14.4 weeks to issue a reimbursement (even including some economies where an audit is likely to be conducted).

To analyze tax audits the *Doing Business* case study scenario was expanded to assume that a company made a simple error in the calculation of its income tax liability, leading to an incorrect corporate income tax return and consequently an underpayment of due income tax liability. The firm discovered the error and voluntarily notified the tax authority. In 74 economies—even following immediate notification by the taxpayer—the error in the income tax return is likely to trigger an audit. And in 38 economies this error will lead to a comprehensive audit of the tax return. OECD high-income economies as well as Europe and Central Asia economies have the simplest processes in place to correct a minor mistake in the income tax return. For an analysis of the data for the indicators, see the case study on paying taxes.

### Gender

This year for the first time *Doing Business* adds gender components to three indicator sets included in the distance to frontier score and ease of doing business ranking. These are starting a business, registering property and enforcing contracts. This addition is based on data originally...
collected by Women, Business and the Law and updated by Doing Business.

Why is it important to incorporate a measure of gender differences? First, around half of the world’s population is female and therefore it is important that Doing Business measures aspects of regulation that specifically impact this large group. For some years now the Women, Business and the Law data have shown, for example, that in some economies a female entrepreneur faces more obstacles than her male counterpart for a variety of economic and business activities. To the extent that these obstacles are ignored, the Doing Business data will be incomplete. More importantly, over the last two decades we have learned a great deal about the relationship between various dimensions of gender inequality and economic growth.

There is ample evidence that those economies that have integrated women more rapidly into the workforce have improved their international competitiveness by developing export-oriented manufacturing industries that tend to favor the employment of women. For the most part, legal gender disparities have been shown to have a strong link with female labor force participation. Studies have also shown a clear link between economic growth and development and female labor force participation.

Gender discrimination limits choices and creates distortions that can lead to less efficient outcomes. An employer’s decision not to hire a woman based solely on her gender can lead to lower productivity for that particular firm. Where this practice is widespread it can have negative effects at the macro level—an economy’s output and growth potential can be lower because of gender discrimination.

The Women, Business and the Law team has documented and measured the legal disparities that are relevant to a woman’s economic empowerment. Economies where there are more gender differences (as measured by Women, Business and the Law) perform worse on average on several important economic and social development variables: formal years of education for women compared to men are lower, labor force participation rates for women compared to men are lower, the proportion of top managers who are women is lower, the proportion of women in parliament is lower, the percentage of women that borrow from financial institutions relative to men is lower and child mortality rates are higher.

Doing Business builds on the work of Women, Business and the Law by adding gender components to three indicator sets this year. Starting a business now includes two case studies—one where the entrepreneurs are men and one where the entrepreneurs are women—in order to address a previous lack of data on those economies where women face a higher number of procedures. Registering property now measures legal gender differentiations in property rights for ownership, use and transfer. And enforcing contracts was expanded to measure whether women’s and men’s testimony have the same evidentiary weight in civil courts. These three areas were selected because there is enough evidence to show their relevance for economic development and because they fit well within the Doing Business methodology. One new area—quotas for women in corporate boards—was studied but not included in this year’s report because the evidence in this area has been mixed so far (box 1.1).

Several studies highlight the importance of equal opportunities for women entrepreneurs, creating the need to measure the differences faced by women entrepreneurs when starting a new business. Research also shows the importance of equal rules regarding property rights for men and women. One study finds that after a reform to the family law in Ethiopia that established more equitable property rights over marital property between spouses, there was an increase in female labor force participation and in more productive sectors. Another study finds that after changes were made to the Hindu Succession Act improving inheritance rights for women in India, there was an increase in education for girls. Improving land tenure security benefits all, but a study of Rwanda’s land tenure regularization program showed that women benefit the most.

Twenty-three economies impose more procedures for women than men to start a business. Sixteen limit women’s ability to own, use and transfer property. And in 17 economies, the civil courts do not value a woman’s testimony the same way as a man’s.

Three gender-related measures were added to the starting a business indicator set—whether a woman requires permission to leave the house, whether there are gender-specific identification procedures and whether a married woman requires her husband’s permission to start a business. In 17 economies a married woman cannot leave the house without her husband’s permission by law. Although in practice this law may not be enforced, it still reduces women’s bargaining power within the household and can undermine their ability to pursue a business venture. In three economies the process of obtaining official identification is different for men and women. The official identification document is a pre-requisite to starting a business. Doing Business has not traditionally captured the process of obtaining identification in starting a business; it is assumed that the entrepreneur has identification before deciding to create a new business. However, when capturing gender-specific procedures it is crucial to include female-specific requirements. In Benin, for example, a married woman must present a marriage certificate when applying for identification but the same requirement does not apply to a married man. In four economies a woman requires her husband’s explicit permission to start a business. This is the case in the Democratic Republic of...
Congo, where by law a married woman needs the authorization of her husband to incorporate a business.

The registering property indicators now include two aspects regarding ownership rights. Doing Business measures whether unmarried men and unmarried women have equal ownership rights to property. Only two economies—Swaziland and Tonga—grant fewer rights to unmarried women. However, when the same question is used to compare the property rights of married men with married women, differences arise in 16 economies.

Restrictions on property ownership are far more common for married women because these are normally linked to family and marriage codes.

Restrictions for women on starting a business are more frequent in economies in both the Middle East and North Africa and Sub-Saharan Africa. The restrictions measured in registering property are more prevalent in Sub-Saharan Africa, while those measured in enforcing contracts are more present in the Middle East and North Africa. However, these types of restrictions are present in every region except Europe and Central Asia. Only one OECD high-income economy still has a restriction—in Chile the law provides fewer property rights to married women than to married men.

Economies with more restrictions for women tend to have on average lower female labor force participation and a lower percentage of female labor force relative to male. The same relationship applies to women’s participation in firm ownership and management (figure 1.2). In fact, the new gender components added to the distance to frontier have a

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**BOX 1.1 Women in corporate boards**

Building on Women, Business and the Law data, this year Doing Business collected data on regulation that imposes quotas for women in corporate boards as well as sanctions and incentives for meeting those quotas. The data show that nine economies have such provisions. Seven of the nine economies that define quotas for women in corporate boards or impose penalties for noncompliance are OECD high-income economies—namely Belgium, France, Germany, Iceland, Israel, Italy and Norway. This type of regulation exists in other regions of the world but it is less common. The law in India, for example, requires that publicly-listed companies have at least one director that is a woman. Any business appointing a woman to a management position in Sierra Leone is now eligible for a tax credit equal to 6.5% of that female manager’s compensation.

Although the data were collected, they were not included in the Doing Business indicators because the empirical evidence on the value of quotas for women in corporate boards is mixed. For example, some studies have questioned the link between women in the boardroom and firm performance, finding either no relationship between gender diversity and performance or even a negative relationship. A Norwegian law mandating 40% representation of women in corporate boards is probably the most researched regulation in this area. One study finds that there were no significant reductions in gender wage gaps. Another study of the same regulation reports a significant drop in stock prices when the law was made public and a deterioration in operating performance. Nevertheless, another study found that firms with women in corporate boards undertake fewer workforce reductions than firms with only male board members.

However, there are patterns of positive firm outcomes connected to the presence of women in important decision-making positions. Quoting a broad range of studies, the World Bank argues that low gender diversity in corporate boards “is seen by many as undermining a company’s potential value and growth. Higher diversity is often thought to improve the board’s functioning by increasing its monitoring capacity, broadening its access to information on its potential customer base, and enhancing its creativity by multiplying viewpoints. Greater diversity implies that board directors can be selected from a broader talent pool.” Indeed, there is evidence that companies benefit from fostering an increase in the number of women board directors. A study comparing the top and bottom quartiles of women board directors at Fortune 500 companies found that where there were higher numbers of women on the board the companies thrived. Analyzing financial measures such as return on equity, return on sales, and return on invested capital, this study established that companies with more women board directors were able to outperform those with fewer by between 42 and 66%.

There is also evidence that companies with greater participation of women in boards tend to have stronger ethical foundations. According to a report from the index provider MSCI, bribery, fraud or other corporate governance scandals are less common in corporations with more women on their boards. The dataset used in this analysis included 6,500 boards globally.

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a. van Dijk and others 2012; Adams and Ferreira 2009.
b. Bertrand and others 2014.
c. Ahern and Dittmar 2012.
d. Matsa and Miller 2013.
e. World Bank 2011.
g. Lee and others 2015.
strong association with outcomes that represent women’s economic empowerment. These results are associations and cannot be interpreted in a causal fashion.

**Procurement**

Public procurement is the process of purchasing goods, services or works by the public sector from the private sector. Overall, public procurement represents on average 10 to 25% of GDP, making the procurement market a unique pool of business opportunities for the private sector. This year Doing Business includes an annex with analysis of a pilot indicator set on public procurement regulation called “selling to the government.” The procurement process is studied across five main areas: accessibility and transparency, bid security, payment delays, incentives for small and medium-size enterprises and complaints mechanisms. For accessibility and transparency, the annex discusses data on whether information is accessible to prospective bidders and how that information can be accessed. For bid security, the indicators measure the amount that prospective bidders need to pay upfront in order to be considered in the bidding process and the form of the security deposit. For payment delays, the annex discusses data on the time it takes for the firm to receive payment from the government after the contract is completed and the service has been delivered. The incentives for small and medium-size enterprises component measures whether economies have set up specific legal provisions or policies to promote fair access for small and medium-size enterprises to government contracts. And for the complaints mechanism component, the indicators measure the process to file a grievance regarding a public procurement project including who can file a complaint, where to file a complaint and the independence of the review body as well as what remedies are granted.

The data show that 97% of the 78 economies analyzed have at least one or more online portals dedicated to public procurement and that close to 90% of economies impose a bid security deposit requirement that suppliers must fulfill for their bid to be considered. In 37% of the economies included in the selling to the government indicators, payment occurs on average within 30 days while in 48% of the economies suppliers can expect to receive payments between 31 and 90 days following completion of the contract. This analysis is presented in the annex on selling to the government and the data are available on the Doing Business website.

**ECONOMIES WITH MORE BUSINESS-FRIENDLY REGULATIONS**

Doing Business scores economies based on how business friendly their regulatory systems are using the distance to frontier score and the ease of doing business ranking. The distance to frontier score measures the distance of each economy to the “frontier,” which represents the best performance observed on each of the indicators across all economies in the Doing Business sample since 2005 or the third year in which data were collected for the indicator. For the getting electricity indicators, for example, the frontier is set at three procedures, 18 days and no cost to obtain a new electricity connection in the economy’s largest business city. The worst for the same group of indicators is set at
9 procedures, 248 days and 81 times the economy’s income per capita as the cost. In addition, the getting electricity indicators measure the reliability of electricity supply and transparency of tariffs through an index ranging from 0 to 8; in this case it is the frontier score. For example, in the case of reliability and transparency, an economy with a score of 6 would be considered to be 75% of the way to the frontier and would have a distance to frontier score of that value. The ease of doing business ranking is based on economies’ relative positions on the distance to frontier scores on ten different Doing Business indicator sets. For more details, see the chapter on the distance to frontier and ease of doing business ranking.

There was some change in the 20 economies with the top scores due mainly to the implementation of business regulatory reforms (table 1.1) and, to a much lesser extent, on account of the methodology changes mentioned above. Austria, Georgia and Latvia join the top 20 economies this year. Georgia implemented five reforms as measured by Doing Business. And Latvia implemented two – it improved access to credit information (by launching a private credit bureau) and made it easier to file taxes (electronically). Although the top 20 economies already have simple, effective and accessible business regulations, they continued to implement reforms this year with a total of 20 reforms implemented among them. Hong Kong SAR, China, for example, made starting a business less costly by reducing the business registration fee while Sweden made it easier to transfer property and Norway made enforcing contracts easier by introducing an electronic filing system.

OECD high-income economies have on average the most business-friendly regulatory systems, followed by Europe and Central Asia (figure 1.3). There is, however, a large variation within those two regions. New Zealand has a ranking of 1 while Greece has a ranking of 61; FYR Macedonia stands at 10 while Tajikistan is at 128. The Sub-Saharan Africa region continues to be home to the economies with the least business-friendly regulations on average. However, this year the regional improvement in the distance to frontier score for Sub-Saharan Africa was almost three times as high as the average improvement for OECD high-income economies. Nevertheless, there is still a long way for Sub-Saharan Africa to go:

it takes 60 days on average to transfer property in that region, for example, compared to only 22 days for the same transaction in OECD high-income economies.

Following the expansion of the scope of the indicators in last year’s report, Doing Business now provides further clarity on the differences between well-designed and badly designed regulation. New data on the quality of regulation make it easier to identify where regulation is enabling businesses to thrive and where it is enabling rent seeking. Doing Business measures the quality of regulation by focusing on whether an economy has in place the rules and processes that can lead to good outcomes, linked in each case to Doing Business measures of efficiency. Scores are higher for economies that, for example, have a land administration system that maintains a dependable database and produces credible titles that are respected as reliable by the legal system. Another way that Doing Business measures regulatory quality is through the building quality control index, which evaluates the quality of building regulations, the strength of quality control and safety mechanisms, liability and insurance regimes and professional certification requirements that ultimately

### FIGURE 1.3 The biggest gaps between regulatory efficiency and regulatory quality are in the Middle East and North Africa and in Sub-Saharan Africa

![Average distance to frontier score](image)

**Source:** Doing Business database.

*Note:* The distance to frontier score for regulatory efficiency is the aggregate score for the procedures (where applicable), time and cost indicators from the following indicator sets: starting a business (also including the minimum capital requirement indicator), dealing with construction permits, getting electricity, registering property, paying taxes (also including the postfiling index), trading across borders, enforcing contracts and resolving insolvency. The distance to frontier score for regulatory quality is the aggregate score for getting credit and protecting minority investors as well as the regulatory quality indices from the indicator sets on dealing with construction permits, getting electricity, registering property, enforcing contracts and resolving insolvency.
OVERVIEW

TABLE 1.1
Rank

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47
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64

Ease of doing business ranking

Economy

New Zealand
Singapore
Denmark
Hong Kong SAR, China
Korea, Rep.
Norway
United Kingdom
United States
Sweden
Macedonia, FYR
Taiwan, China
Estonia
Finland
Latvia
Australia
Georgia
Germany
Ireland
Austria
Iceland
Lithuania
Canada
Malaysia
Poland
Portugal
United Arab Emirates
Czech Republic
Netherlands
France
Slovenia
Switzerland
Spain
Slovak Republic
Japan
Kazakhstan
Romania
Belarus
Armenia
Bulgaria
Russian Federation
Hungary
Belgium
Croatia
Moldova
Cyprus
Thailand
Mexico
Serbia
Mauritius
Italy
Montenegro
Israel
Colombia
Peru
Puerto Rico (U.S.)
Rwanda
Chile
Albania
Luxembourg
Kosovo
Greece
Costa Rica
Bahrain
Mongolia

DTF score
87.01 Ï
85.05 Ï
84.87 Ï
84.21 Ï
84.07 Ï
82.82 Ï
82.74 Ï
82.45
82.13 Ï
81.74 Ï
81.09 Ï
81.05 Ï
80.84
80.61 Ï
80.26 Ï
80.20 Ï
79.87
79.53 Ï
78.92 Ï
78.91 Ï
78.84 Ï
78.57
78.11
77.81 Ï
77.40 Ï
76.89 Ï
76.71 Ï
76.38 Ï
76.27 Ï
76.14 Ï
76.06
75.73 Ï
75.61 Ï
75.53 Ï
75.09 Ï
74.26 Ï
74.13 Ï
73.63 Ï
73.51 Ï
73.19
73.07 Ï
73.00
72.99 Ï
72.75 Ï
72.65 Ï
72.53 Ï
72.29 Ï
72.29 Ï
72.27 Ï
72.25 Ï
72.08 Ï
71.65 Ï
70.92 Ï
70.25 Ï
69.82 Ï
69.81 Ï
69.56 Ï
68.90 Ï
68.81 Ï
68.79 Ï
68.67
68.50 Ï
68.44 Ï
68.15 Ï

Rank

Economy

65
66
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Azerbaijan
Oman
Jamaica
Morocco
Turkey
Panama
Botswana
Brunei Darussalam
Bhutan
South Africa
Kyrgyz Republic
Malta
Tunisia
China
San Marino
Ukraine
Bosnia and Herzegovina
Vietnam
Qatar
Vanuatu
Tonga
St. Lucia
Uzbekistan
Guatemala
Samoa
Uruguay
Indonesia
Kenya
Seychelles
Saudi Arabia
El Salvador
Trinidad and Tobago
Fiji
Zambia
Philippines
Lesotho
Dominica
Kuwait
Dominican Republic
Solomon Islands
Honduras
Paraguay
Nepal
Ghana
Namibia
Sri Lanka
Swaziland
Belize
Antigua and Barbuda
Ecuador
Uganda
Argentina
Barbados
Jordan
Papua New Guinea
Iran, Islamic Rep.
Bahamas, The
Egypt, Arab Rep.
Brazil
Guyana
St. Vincent and the Grenadines
Lebanon
Nicaragua

DTF score
67.99 Ï
67.73 Ï
67.54 Ï
67.50 Ï
67.19
66.19
65.55 Ï
65.51 Ï
65.37 Ï
65.20
65.17 Ï
65.01 Ï
64.89 Ï
64.28 Ï
64.11 Ï
63.90 Ï
63.87 Ï
63.83 Ï
63.66
63.66 Ï
63.58
63.13
63.03 Ï
62.93 Ï
62.17 Ï
61.85 Ï
61.52 Ï
61.22 Ï
61.21 Ï
61.11 Ï
61.02
60.99
60.71
60.54
60.40 Ï
60.37 Ï
60.27
59.55
59.35 Ï
59.17 Ï
59.09
59.03
58.88
58.82 Ï
58.82
58.79 Ï
58.34 Ï
58.06
58.04
57.97 Ï
57.77 Ï
57.45 Ï
57.42 Ï
57.30 Ï
57.29 Ï
57.26 Ï
56.65
56.64 Ï
56.53
56.26 Ï
55.91
55.90
55.75 Ï

Rank

Economy

128
129
130
131
132
133
134
135
136
137
138
139
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141
142
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Tajikistan
Cabo Verde
India
Cambodia
Tanzania
Malawi
St. Kitts and Nevis
Maldives
Palau
Mozambique
Grenada
Lao PDR
West Bank and Gaza
Mali
Côte d'Ivoire
Marshall Islands
Pakistan
Gambia, The
Burkina Faso
Senegal
Sierra Leone
Bolivia
Niger
Kiribati
Comoros
Togo
Benin
Algeria
Burundi
Suriname
Ethiopia
Mauritania
Zimbabwe
São Tomé and Príncipe
Guinea
Gabon
Iraq
Cameroon
Madagascar
Sudan
Nigeria
Myanmar
Djibouti
Guinea-Bissau
Syrian Arab Republic
Liberia
Timor-Leste
Bangladesh
Congo, Rep.
Equatorial Guinea
Yemen, Rep.
Chad
Haiti
Angola
Afghanistan
Central African Republic
South Sudan
Venezuela, RB
Libya
Eritrea
Somalia

DTF score
55.34 Ï
55.28
55.27 Ï
54.79 Ï
54.48 Ï
54.39 Ï
53.96
53.94
53.81 Ï
53.78
53.75
53.29 Ï
53.21 Ï
52.96 Ï
52.31 Ï
51.92 Ï
51.77 Ï
51.70 Ï
51.33 Ï
50.68 Ï
50.23 Ï
49.85 Ï
49.57 Ï
49.48
49.19 Ï
48.69 Ï
48.57 Ï
48.52 Ï
47.76 Ï
47.37 Ï
47.28 Ï
47.25 Ï
47.21 Ï
47.10 Ï
46.75 Ï
46.23 Ï
45.88
45.61 Ï
45.27 Ï
45.10 Ï
44.76
44.63 Ï
44.56 Ï
44.50 Ï
41.63 Ï
41.43
41.41
40.88
40.84 Ï
40.58
39.83
39.57
39.07 Ï
38.66 Ï
38.41
38.10
37.57 Ï
36.25
33.48
33.37
33.19
28.05 Ï
20.29 Ï

Source: Doing Business database.
Note: The rankings are benchmarked to June 2016 and based on the average of each economy’s distance to frontier (DTF) scores for the 10 topics included in this year’s
aggregate ranking. For the economies for which the data cover two cities, scores are a population-weighted average for the two cities. An arrow indicates an improvement in the
score between 2015 and 2016 (and therefore an improvement in the overall business environment as measured by Doing Business), while the absence of one indicates either no
improvement or a deterioration in the score. The score for both years is based on the new methodology.

7


lead to safe buildings. Efficient business regulatory systems allow entrepreneurs to achieve business-related tasks simply, quickly and inexpensively. Therefore, an economy scores better on the metric for regulatory efficiency if it has a system in place that allows entrepreneurs to start a business through a small number of steps, in short time and at lower cost.

Regulatory efficiency and regulatory quality go hand in hand. Economies that have efficient regulatory processes as measured by Doing Business also tend to have good regulatory quality. However, the gap between the two measures varies significantly by region. In OECD high-income economies, the average distance to the frontier score for regulatory efficiency is 79.4 while regulatory quality lags at 73.4. In the Middle East and North Africa and Sub-Saharan Africa the gap between efficiency and quality is larger: on efficiency these regions score 65.4 and 56.5 while on quality they score 45.2 and 36.7, respectively.

**Economies with the Largest Improvements in Business Regulation in 2015/16**

In 2015/16, 137 economies worldwide implemented 283 business regulatory reforms. This represents an increase of more than 20% compared to last year. In fact, the number of economies that implemented at least one reform increased from 122 to 137, indicating that there are more economies trying to improve in the areas measured in Doing Business. And 139 economies made an improvement in the distance to frontier score; doing business is now easier and less costly in those economies compared to last year. With 49 reforms, starting a business continues to be the indicator set with the highest number of reforms followed by paying taxes with 46. Of the economies in Europe and Central Asia, 96% implemented at least one Doing Business reform. Sub-Saharan Africa is the region with the second-highest incidence of reforms, with 77% of economies implementing at least one reform captured by Doing Business.

Ten economies are highlighted this year for making the biggest improvements in their business regulations—Brunei Darussalam, Kazakhstan, Kenya, Belarus, Indonesia, Serbia, Georgia, Pakistan, the United Arab Emirates and Bahrain. The ease of doing business ranking for these economies ranges from 144 in Pakistan to 16 in Georgia; on average it is 62. Compared to previous years there is a lower number of top improvers from Sub-Saharan Africa even though this region accounts for over a quarter of all reforms globally.

There are several possible explanations for the increase in reform intensity. One is that economies are increasingly interested in improving business regulatory conditions and therefore are reforming more. Another is that there are more areas where reforms can be captured following the expansion of the Doing Business methodology. The data indicate that both factors have contributed. A substantial number of the reforms implemented this year are in areas that were added since Doing Business 2015 (figure 1.4). Around 26% of the reforms implemented in the expanded indicator sets were only made in these new areas. And another 17% concern both the new and old indicators. Indeed, over 40% of all reforms affected at least one of the components added since Doing Business 2015. The frequency of reform in the new areas varies substantially by topic, with the most reforms occurring within the enforcing contracts and registering property indicators. In registering property, for example, this year the cadastral maps have been digitized and made available online in Jakarta and Surabaya, Indonesia. The online application provides customers with access to a spatial database that allows them to check property boundaries. And in enforcing contracts, the government of Rwanda introduced the Integrated Electronic Case Management...
For a full discussion of the 283 reforms implemented in 2015/16 and more information on the top improvers, see the chapter on reforming the business environment.

**ECONOMIES WITH THE LARGEST IMPROVEMENTS IN BUSINESS REGULATION SINCE 2003**

Each year Doing Business captures substantive reforms implemented by economies across all ten indicator sets included in the ease of doing business ranking. Since Doing Business 2005 over 2,900 business regulatory reforms have been implemented in 186 economies. Only Kiribati, Libya, Somalia and South Sudan have not implemented a reform captured by the Doing Business indicators. The majority of these reforms have been made in low-income and middle-income economies, leading to more significant improvements in business regulation compared to high-income economies. The gap between high-income economies and low-income economies is therefore narrowing when it comes to the quality and efficiency of business regulation (figure 1.5).

The reform intensity varies considerably across regions. With over 26 reforms per economy since 2004, Europe and Central Asia is the region that has reformed the most intensely since Doing Business began gathering data on business regulation. The global average is around 15 reforms per economy. These reforms have produced significant improvements in business regulation. Since 2004, economies in Europe and Central Asia have improved over 20 points on average in the distance to frontier score, moving into second position in the regional rankings behind the OECD high-income economies for the most business-friendly regulations (figure 1.6).

How did Europe and Central Asia accomplish this? The most reformed Doing Business areas in Europe and Central Asia are starting a business, paying taxes and getting credit. Georgia, FYR Macedonia, Kazakhstan, Belarus, Armenia, and the Russian Federation have made the most reforms in Europe and Central Asia, implementing over 30 reforms each since 2004. Moreover, seven countries in the region—Armenia, Belarus, Georgia, Kazakhstan, Lithuania, FYR Macedonia...
and Ukraine—reformed across all Doing Business indicators. Another 13 economies implemented reforms in eight to 10 areas measured by Doing Business. This shows that economies tend to expand their reform efforts to encompass multiple business regulatory environments rather than choosing a narrow reform path.

The region with the lowest average number of reforms per economy is East Asia and the Pacific with 13 reforms per economy since 2004. This is partly due to the fact that the Pacific islands have been slow to reform. The OECD high-income economies have the lowest average improvement, mainly because of reduced room for progress. It is hard to advance by much when you are already close to the top.

Reforming the requirements for starting a business is by far the most common area for reform—586 reforms have been captured by the starting a business indicator set since 2004 (figure 1.7). Only 14 economies have not improved their business registration processes. One of these economies is República Bolivariana de Venezuela, where it takes 230 days to start a new business, significantly higher than the global average of 21 days (down from 51 days in 2003). In the past year, República Bolivariana de Venezuela has actually made the process more time consuming—an increase of 44 days—by limiting the work schedule of the public sector amidst an energy crisis.

The indicator set with the second highest number of reforms is paying taxes, with 443 reforms implemented since 2004. But reforms captured within the getting credit indicators—although there were only 400 recorded—have resulted in a bigger improvement in the distance to frontier score. The data also show that court systems, as captured in both the enforcing contracts and resolving insolvency indicator sets, are the institutions reformed least frequently.

**FIGURE 1.7** Economies have improved regulatory processes the most in the area of starting a business

![Figure 1.7: Economies have improved regulatory processes the most in the area of starting a business](image)

*Source: Doing Business database.*

*Note: The red line shows the average global improvement in the distance to frontier score since 2004. The measure is normalized to range from 0 to 100, with 100 representing the frontier. Because of changes over the years in methodology and in the economies and indicators included, the improvements are measured year on year using pairs of consecutive years with comparable data.*

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**THE RELATIONSHIP BETWEEN BUSINESS REGULATION AND INCOME INEQUALITY**

A recent World Bank report focusing on poverty and shared prosperity provides new evidence on the status of income inequality worldwide. Domestic income inequality has fallen in more economies than it has risen since 2008 (across a sample of 81 economies). However, the global average for domestic income inequality is larger today than 25 years ago. Indeed, income inequality is an important concern. Excessive income inequality can have many negative effects, including political instability and civil unrest. The determinants of income inequality have been widely studied in the economic literature—what increases it, what can reduce it and its negative consequences. For example, policies such as early childhood development, universal education and health care...
and infrastructure investments in roads and electrification have been shown to have positive effects in reducing income inequality.\textsuperscript{17}

Several recent studies link weaker economic growth to higher income inequality, although there is a debate on the validity of these results.\textsuperscript{18} Growth analysis is typically based on cross-country data across multiple years. These data tend to have statistical characteristics that make it harder to identify causality and understand the links between variables. Furthermore, the data on inequality in a large cross-country setting and over time is very limited and often may be imputed between years. With that caveat in mind, studies linking economic growth and inequality find that, for example, higher income inequality is associated with a smaller tax base and therefore lower tax collection and more indebtedness by governments.\textsuperscript{19} There is also a gender component to income disparity; the data show that where there are higher levels of gender inequality, there are also higher levels of income inequality.\textsuperscript{20} Gender inequality exists at various levels: educational, access to assets and overall low investment in girls and women.\textsuperscript{21}

A considerable body of evidence confirms that cross-country differences in the quality of business regulation are strongly correlated with differences in income per capita across economies.\textsuperscript{22} But can business regulation also be a factor in understanding income differences across individuals within an economy? Business regulation that is transparent and accessible makes it easier for people of all income levels to access markets, develop their businesses and navigate the bureaucratic world. People of low income are more likely to benefit from transparent regulation because, unlike wealthy individuals, they cannot afford experts to help them navigate the system and are more likely to be excluded from economic opportunities when business regulation is cumbersome. In fact, research shows that where business regulation is simpler and more accessible, firms start smaller and firm size can be a proxy for the income of the entrepreneur.\textsuperscript{23} Doing Business data confirms this notion. There is a negative association between the Gini index, which measures income inequality within an economy, and the distance to frontier score, which measures the quality and efficiency of business regulation when the data are compared over time (figure 1.8).

Data across multiple years and economies show that as economies improve business regulation, income inequality tends to decrease in parallel. Although these results are associations and do not imply causality, it is important to see such relation. The results differ by regulatory area. Facilitating entry and exit in and out of the market—as measured by the starting a business and resolving insolvency

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure1.8.png}
\caption{Economies with more business-friendly regulation tend to have lower levels of income inequality on average}
\end{figure}

Note: The figure compares distance to frontier score to the Gini index as calculated in PovcalNet. The data ranges from 2003 to 2013 and includes 713 observations. The correlation between the Gini index and the distance to frontier score is -0.33. The relationship is significant at the 1\% level after controlling for income per capita and government expenditure.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure1.9.png}
\caption{Economies where it is easier to start a business tend to have lower levels of income inequality on average}
\end{figure}

Note: The figure compares starting a business indicator distance to frontier score to the Gini index as calculated in PovcalNet. The data ranges from 2003 to 2013 and includes 713 observations. The correlation between the Gini index and the distance to frontier score is -0.35. The relationship is significant at the 1\% level after controlling for income per capita and government expenditure.
**FIGURE 1.10** Economies where it is easier to close a business tend to have lower levels of income inequality on average

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**CONTENTS OF THIS YEAR’S REPORT**

This year’s report presents six case studies and two annexes. The case studies focus on the areas that are included in the ease of doing business ranking while the annexes cover areas not included in the ranking. The case studies and annexes either present new indicators or provide further insights from the data collected through methodology changes implemented in the past two years.

The getting electricity case study highlights the importance of a reliable power supply for business and discusses the challenges and successes of four very different economies—Cameroon, Guatemala, Indonesia and Pakistan. This year, two case studies on getting credit are presented, one focusing on the strength of legal rights index and one focusing on the depth of credit information. The case study on the strength of legal rights index discusses two approaches to the reform process, one where the economy completely discards the existing laws and regulation and creates a new overarching framework for secured transactions and another where the economy makes piecemeal reforms while preserving the existing overarching framework. The case study on the depth of credit information highlights the importance of a well-functioning credit bureau or registry for financial inclusion and discusses how they can increase their coverage by broadening the sources of information. The case study on protecting minority investors analyzes the reforms that focus on the newest parts of the indicator. Reforms implemented in India and Switzerland are discussed in detail. The case study on paying taxes presents and analyzes the new data on postfiling processes. Finally, the case study on trading across borders discusses the importance of single windows and electronic systems for simplifying trade logistics and reducing corruption.

The two annexes present the data analysis for two topics, labor market regulation and selling to the government. Selling to the government is a pilot indicator this year, covering 78 economies.

**NOTES**

1. For 11 economies the data are also collected for the second largest business city (see table 12A.1 in the data notes).
2. The correlation between the old part and the new part of the paying taxes indicator set is 0.92.
3. Amin 2010; Bruhn 2009.
7. Gonzales and others 2015.
10. Iqbal and others 2016.
11. OECD 2012.
15. The European Union estimates that public procurement amounts to between 10 and 25% of GDP globally (see http://ec.europa.eu/trade/policy/accessing-markets/public-procurement/). The WTO estimates that public procurement represents between 10 and 15% of GDP (https://www.wto.org/english/tratop_e/gproc_e/gproc_e.htm).
20. Gonzales and others 2015.
22. Marinov and Quadrini 2008; Barseghyan 2008; Freund and Bolaky 2008.
About Doing Business

The foundation of Doing Business is the notion that economic activity, particularly private sector development, benefits from clear and coherent rules: Rules that set out and clarify property rights and facilitate the resolution of disputes. And rules that enhance the predictability of economic interactions and provide contractual partners with essential protections against arbitrariness and abuse. Such rules are much more effective in shaping the incentives of economic agents in ways that promote growth and development where they are reasonably efficient in design, are transparent and accessible to those for whom they are intended and can be implemented at a reasonable cost. The quality of the rules also has a crucial bearing on how societies distribute the benefits and finance the costs of development strategies and policies.

Good rules are a key to social inclusion. Enabling growth—and ensuring that all people, regardless of income level, can participate in its benefits—requires an environment where new entrants with drive and good ideas can get started in business and where good firms can invest and expand. The role of government policy in the daily operations of domestic small and medium-size firms is a central focus of the Doing Business project. The objective is to encourage regulation that is designed to be efficient, accessible to all and simple to implement. Onerous regulation diverts the energies of entrepreneurs away from developing their businesses. But regulation that is efficient, transparent and implemented in a simple way facilitates business expansion and innovation, and makes it easier for aspiring entrepreneurs to compete on an equal footing.

Doing Business measures aspects of business regulation for domestic firms through an objective lens. The focus of the project is on small and medium-size companies in the largest business city of an economy. Based on standardized case studies, Doing Business presents quantitative indicators on the regulations that apply to firms at different stages of their life cycle. The results for each economy can be compared with those for 189 other economies and over time.

FACTORS DOING BUSINESS MEASURES

Doing Business captures several important dimensions of the regulatory environment as it applies to local firms. It provides quantitative indicators on regulation for starting a business, dealing with construction permits, getting electricity, registering property, getting credit, protecting minority investors, paying taxes, trading across borders, enforcing contracts and resolving insolvency (table 2.1). Doing Business also measures features of labor market regulation, which is not included in these two measures.

Doing Business relies on four main sources of information: the relevant laws and regulations, Doing Business respondents, the governments of the economies covered and the World Bank Group regional staff.

More than 39,000 professionals in 190 economies have assisted in providing the data that inform the Doing Business indicators over the past 14 years.

This year’s report expands the paying taxes indicator set to cover postfiling processes—what happens after a firm pays taxes—such as tax refunds, tax audits and administrative tax appeals.

Doing Business includes a gender dimension in four of the 11 indicator sets. Starting a business, registering property and enforcing contracts present a gender dimension for the first time this year. Labor market regulation already captured gender disaggregated data in last year’s report.
TABLE 2.1  What Doing Business measures—11 areas of business regulation

<table>
<thead>
<tr>
<th>Indicator set</th>
<th>What is measured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Starting a business</td>
<td>Procedures, time, cost and paid-in minimum capital to start a limited liability company</td>
</tr>
<tr>
<td>Dealing with construction permits</td>
<td>Procedures, time and cost to complete all formalities to build a warehouse and the quality control and safety mechanisms in the construction permitting system</td>
</tr>
<tr>
<td>Getting electricity</td>
<td>Procedures, time and cost to get connected to the electrical grid, the reliability of the electricity supply and the transparency of tariffs</td>
</tr>
<tr>
<td>Registering property</td>
<td>Procedures, time and cost to transfer a property and the quality of the land administration system</td>
</tr>
<tr>
<td>Getting credit</td>
<td>Movable collateral laws and credit information systems</td>
</tr>
<tr>
<td>Protecting minority investors</td>
<td>Minority shareholders’ rights in related-party transactions and in corporate governance</td>
</tr>
<tr>
<td>Paying taxes</td>
<td>Payments, time and total tax rate for a firm to comply with all tax regulations as well as post-filing processes</td>
</tr>
<tr>
<td>Trading across borders</td>
<td>Time and cost to export the product of comparative advantage and import auto parts</td>
</tr>
<tr>
<td>Enforcing contracts</td>
<td>Time and cost to resolve a commercial dispute and the quality of judicial processes</td>
</tr>
<tr>
<td>Resolving insolvency</td>
<td>Time, cost, outcome and recovery rate for a commercial insolvency and the strength of the legal framework for insolvency</td>
</tr>
<tr>
<td>Labor market regulation</td>
<td>Flexibility in employment regulation and aspects of job quality</td>
</tr>
</tbody>
</table>

How the indicators are selected

The choice of the 11 sets of Doing Business indicators has been guided by economic research and firm-level data, specifically data from the World Bank Enterprise Surveys. These surveys provide data highlighting the main obstacles to business activity as reported by entrepreneurs in more than 130,000 firms in 139 economies. Access to finance and access to electricity, for example, are among the factors identified by the surveys as important to businesses—inspiring the design of the Doing Business indicators on getting credit and getting electricity.

The design of the Doing Business indicators has also been informed by theoretical insights gleaned from extensive research and the literature on the role of institutions in enabling economic development. In addition, the background papers developing the methodology for each of the Doing Business indicator sets have established the importance of the rules and regulations that Doing Business focuses on for such economic outcomes as trade volumes, foreign direct investment, market capitalization in stock exchanges and private credit as a percentage of GDP.

Some Doing Business indicators give a higher score for more regulation and better-functioning institutions (such as courts or credit bureaus). Higher scores are given for stricter disclosure requirements for related-party transactions, for example, in the area of protecting minority investors. Higher scores are also given for a simplified way of applying regulation that keeps compliance costs for firms low—such as by easing the burden of business start-up formalities with a one-stop shop or through a single online portal. Finally, Doing Business scores reward economies that apply a risk-based approach to regulation as a way to address social and environmental concerns—such as by imposing a greater regulatory burden on activities that pose a high risk to the population and a lesser one on lower-risk activities. Thus the economies that rank highest on the ease of doing business are not those where there is no regulation—but those where governments have managed to create rules that facilitate interactions in the marketplace without needlessly hindering the development of the private sector.

The distance to frontier and ease of doing business ranking

To provide different perspectives on the data, Doing Business presents data both for individual indicators and for two aggregate measures: the distance to frontier score and the ease of doing business ranking. The distance to frontier score aids in assessing the absolute level of regulatory performance and how it improves over time. This measure shows the distance of each economy to the “frontier,” which represents the best performance observed on each of the indicators across all economies in the Doing Business sample since 2005 or the third year in which data were collected for the indicator. The frontier is set at the highest possible value for indicators calculated as scores, such as the strength of legal rights index or the quality of land administration index. This underscores the gap between a particular economy’s performance and the best performance at any point in time and to assess the absolute change in the economy’s regulatory environment over time as measured by Doing Business. The distance to frontier is first computed for each topic and then averaged across all topics to compute the aggregate distance to frontier score. The ranking on the ease of doing business complements the distance to frontier score by providing information about an economy’s performance in business regulation relative to the performance of other economies as measured by Doing Business.

Doing Business uses a simple averaging approach for weighting component indicators, calculating rankings and determining the distance to frontier score. Each topic covered by Doing Business relates to a different aspect of the business regulatory environment. The distance to frontier scores and rankings of each economy vary, often
considerably, across topics, indicating that a strong performance by an economy in one area of regulation can coexist with weak performance in another (figure 2.1). One way to assess the variability of an economy’s regulatory performance is to look at its distance to frontier scores across topics (see the country tables). Morocco, for example, has an overall distance to frontier score of 67.50, meaning that it is two-thirds of the way from the worst to the best performance. Its distance to frontier score is 92.34 for starting a business, 83.51 for paying taxes and 81.12 for getting credit and 53.33 for protecting minority investors.

**FACTORS DOING BUSINESS DOES NOT MEASURE**

Many important policy areas are not covered by Doing Business; even within the areas it covers its scope is narrow (table 2.2). Doing Business does not measure the full range of factors, policies and institutions that affect the quality of an economy’s business environment or its national competitiveness. It does not, for example, capture aspects of macroeconomic stability, development of the financial system, market size, the incidence of bribery and corruption or the quality of the labor force.

The focus is deliberately narrow even within the relatively small set of indicators included in Doing Business. The time and cost required for the logistical process of exporting and importing goods is captured in the trading across borders indicators, for example, but they do not measure the cost of tariffs or of international transport. Doing Business provides a narrow perspective on the infrastructure challenges that firms face, particularly in the developing world, through these indicators. It does not address the extent to which inadequate roads, rail, ports and communications may add to firms’ costs and undermine competitiveness (except to the extent that the trading across borders indicators indirectly measure the quality of ports and border connections). Similar to the

**TABLE 2.2** What Doing Business does not cover

<table>
<thead>
<tr>
<th>Examples of areas not covered</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Macroeconomic stability</td>
<td></td>
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<tr>
<td>Development of the financial system</td>
<td></td>
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<tr>
<td>Quality of the labor force</td>
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<tr>
<td>Incidence of bribery and corruption</td>
<td></td>
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<tr>
<td>Market size</td>
<td></td>
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<tr>
<td>Lack of security</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Examples of aspects not included within the areas covered</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>In paying taxes, personal income tax rates</td>
<td></td>
</tr>
<tr>
<td>In getting credit, the monetary policy stance and the associated ease or tightness of credit conditions for firms</td>
<td></td>
</tr>
<tr>
<td>In trading across borders, export or import tariffs and subsidies</td>
<td></td>
</tr>
<tr>
<td>In resolving insolvency, personal bankruptcy rules</td>
<td></td>
</tr>
</tbody>
</table>

**FIGURE 2.1** An economy’s regulatory environment may be more business-friendly in some areas than in others

![Graph showing distance to frontier score (0–100)](image)

Source: Doing Business database.

**Note:** The distance to frontier scores reflected are those for the 10 Doing Business topics included in this year’s aggregate distance to frontier score. The figure is illustrative only; it does not include all 190 economies covered by this year’s report. See the country tables for the distance to frontier scores for each Doing Business topic for all economies.
indicators on trading across borders, all aspects of commercial legislation are not covered by those on starting a business or protecting minority investors. And while Doing Business measures only a few aspects within each area that it covers, business regulation reforms should not focus only on these aspects, because those that it does not measure are also important.

Doing Business does not attempt to quantify all costs and benefits of a particular law or regulation to society as a whole. The paying taxes indicators measure the total tax rate, which, in isolation, is a cost to businesses. However, the indicators do not measure—nor are they intended to measure—the benefits of the social and economic programs funded with tax revenues. Measuring the quality and efficiency of business regulation provides only one input into the debate on the regulatory burden associated with achieving regulatory objectives, which can differ across economies. Doing Business provides a starting point for this discussion and should be used in conjunction with other data sources.

ADVANTAGES AND LIMITATIONS OF THE METHODOLOGY

The Doing Business methodology is designed to be an easily replicable way to benchmark specific aspects of business regulation. Its advantages and limitations should be understood when using the data (table 2.3).

Ensuring comparability of the data across a global set of economies is a central consideration for the Doing Business indicators, which are developed around standardized case scenarios with specific assumptions. One such assumption is the location of a standardized business—the subject of the Doing Business case study—in the largest business city of the economy. The reality is that business regulations and their enforcement may differ within a country, particularly in federal states and large economies. But gathering data for every relevant jurisdiction in each of the 190 economies covered by Doing Business is infeasible. Nevertheless, where policy makers are interested in generating data at the local level, beyond the largest business city, Doing Business has complemented its global indicators with subnational studies (box 2.1). Coverage was extended to the second largest business city in economies with a population of more than 100 million (as of 2013) in Doing Business 2015.

Doing Business recognizes the limitations of the standardized case scenarios and assumptions. But while such assumptions come at the expense of generality, they also help to ensure the comparability of data. Some Doing Business topics are complex, and so it is important that the standardized cases are defined carefully. For example, the standardized case scenario usually involves a limited liability company or its legal equivalent. There are two reasons for this assumption. First, private, limited liability companies are the most prevalent business form (for firms with more than one owner) in many economies around the world. Second, this choice reflects the focus of Doing Business on expanding opportunities for entrepreneurship: investors are encouraged to venture into business when potential losses are limited to their capital participation.

Another assumption underlying the Doing Business indicators is that entrepreneurs have knowledge of and comply with applicable regulations. In practice, entrepreneurs may not be aware of what needs to be done or how to comply with regulations and may lose considerable time trying to find out. Alternatively, they may intentionally avoid compliance—by not registering for social security, for example. Firms may opt for bribery and other informal arrangements intended to bypass the rules where regulation is particularly onerous—an aspect that helps explain differences between the de jure data provided by Doing Business and the de facto insights offered by the World Bank Enterprise Surveys. Levels of informality tend to be higher in economies with particularly burdensome regulation. Compared with their formal sector counterparts, firms in the informal sector typically grow more slowly, have poorer access to credit and employ fewer

<table>
<thead>
<tr>
<th>Feature</th>
<th>Advantages</th>
<th>Limitations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use of standardized case scenarios</td>
<td>Makes data comparable across economies and methodology transparent, using case scenarios that are common globally</td>
<td>Reduces scope of data; only regulatory reforms in areas measured can be systematically tracked; the case scenarios may not be the most common in a particular economy</td>
</tr>
<tr>
<td>Focus on largest business city</td>
<td>Makes data collection manageable (cost-effective) and data comparable</td>
<td>Reduces representativeness of data for an economy if there are significant differences across locations</td>
</tr>
<tr>
<td>Focus on domestic and formal sector</td>
<td>Keeps attention on formal sector—where regulations are relevant and firms are most productive</td>
<td>Unable to reflect reality for informal sector—important where that is large—or for foreign firms facing a different set of constraints</td>
</tr>
<tr>
<td>Reliance on expert respondents</td>
<td>Ensures that data reflect knowledge of those with most experience in conducting types of transactions measured</td>
<td>Indicators less able to capture variation in experiences among entrepreneurs</td>
</tr>
<tr>
<td>Focus on the law</td>
<td>Makes indicators “actionable”—because the law is what policy makers can change</td>
<td>Where systematic compliance with the law is lacking, regulatory changes will not achieve full results desired</td>
</tr>
</tbody>
</table>

Source: Doing Business database.

a. In economies with a population of more than 100 million as of 2013, Doing Business covers business regulation in both the largest and second largest business city.
BOX 2.1 Comparing regulation at the local level: subnational Doing Business studies

Subnational Doing Business studies, which are undertaken at the request of governments, expand the Doing Business analysis beyond an economy’s largest business city. They measure variation in regulations or in the implementation of national laws across locations within an economy (as in Poland) or a region (as in South East Europe).

Data collected by subnational studies over the past three years show that there can be substantial variation within an economy (see figure). In Mexico, for example, in 2016 registering a property transfer took as few as 9 days in Puebla and as many as 78 in Oaxaca. Indeed, within the same economy one can find locations that perform as well as economies ranking in the top 20 on the ease of registering property and locations that perform as poorly as economies ranking in the bottom 40 on that indicator.

Different locations, different regulatory processes, same economy

![Graph showing time to register property in different locations](image)

Source: Subnational Doing Business database.

Note: The average time shown for each economy is based on all locations covered by the data: 11 cities in Kenya in 2016, 32 states in Mexico in 2016, 18 cities in Poland in 2015, 9 cities in South Africa in 2015 and 19 cities in Spain in 2015.

While subnational Doing Business studies generate disaggregated data on business regulation, they go beyond a data collection exercise. They have been shown to be strong motivators for regulatory reform at the local level:

- Results can be benchmarked both locally and globally because the data produced are comparable across locations within the economy and internationally. Comparing locations within the same economy—which share the same legal and regulatory framework—can be revealing: local officials struggle to explain why doing business is more challenging in their jurisdiction than in a neighboring one.

- Highlighting good practices that exist in some locations but not others within an economy helps policy makers recognize the potential for replicating these good practices. This can yield discussions about regulatory reform across different levels of government, providing opportunities for local governments and agencies to learn from one another and resulting in local ownership and capacity building.

Since 2005 subnational reports have covered 438 locations in 65 economies (see map). Seventeen economies—including the Arab Republic of Egypt, Mexico, Nigeria, the Philippines, and the Russian Federation—have undertaken two or more rounds of subnational data collection to measure progress over time. This year subnational studies were completed in Kenya, Mexico and the United Arab Emirates. Ongoing studies include those in Afghanistan (5 cities), Colombia (32 cities), three EU member states (22 cities in Bulgaria, Hungary and Romania) and Kazakhstan (8 cities).


(continued)
workers—and these workers remain outside the protections of labor law and, more generally, other legal protections embedded in the law. 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 gives policy makers insights into potential areas of regulatory reform.

**DATA COLLECTION IN PRACTICE**

The Doing Business data are based on a detailed reading of domestic laws and regulations as well as administrative requirements. The report covers 190 economies—including some of the smallest and poorest economies, for which little or no data are available from other sources. The data are collected through several rounds of communication with expert respondents (both private sector practitioners and government officials), through responses to questionnaires, conference calls, written correspondence and visits by the team. Doing Business relies on four main sources of information: the relevant laws and regulations, Doing Business respondents, the governments of the economies covered and the World Bank Group regional staff (figure 2.2). For a detailed explanation of the Doing Business methodology, see the data notes.

**Relevant laws and regulations**

The Doing Business indicators are based mostly on laws and regulations: around 60% of the data embedded in the Doing Business indicators are based on a reading of the law. In addition to filling out questionnaires, Doing Business respondents submit references to the relevant laws, regulations and fee schedules. The Doing Business team collects the texts of the relevant laws and regulations and checks the questionnaire responses for accuracy. The team will examine the civil procedure code, for example, to check the maximum number of adjournments in a commercial court dispute, and read the insolvency code to identify if the debtor can initiate liquidation or reorganization proceeding. These and other types of laws are available on the Doing Business law library website. Since the data collection process involves an annual update of an established database, having a very large sample of respondents is not strictly necessary. In principle, the role of the contributors

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**BOX 2.1 Comparing regulation at the local level: subnational Doing Business studies (continued)**

Subnational studies cover a large number of cities across all regions of the world

![Map of cities covered by subnational Doing Business studies](image)

**Source:** Subnational Doing Business database.
ABOUT DOING BUSINESS

is largely advisory—helping the Doing Business team to locate and understand the laws and regulations. There are quickly diminishing returns to an expanded pool of contributors. This notwithstanding, the number of contributors rose by 58% between 2010 and 2016.

Extensive consultations with multiple contributors are conducted by the team to minimize measurement error for the rest of the data. 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 by respondents on what actual practice looks like. When respondents disagree, the time indicators reported by Doing Business represent the median values of several responses given under the assumptions of the standardized case.

Doing Business respondents
More than 39,000 professionals in 190 economies have assisted in providing the data that inform the Doing Business indicators over the past 14 years.\(^7\) This year’s report draws on the inputs of more than 12,500 professionals.\(^8\) Table 12.2 in the data notes lists the number of respondents for each indicator set. The Doing Business website shows the number of respondents for each economy and each indicator set.

Selected on the basis of their expertise in these areas, respondents are professionals who routinely administer or advise on the legal and regulatory requirements 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. In addition, officials of the credit bureau or registry complete the credit information questionnaire. Accountants, architects, engineers, freight forwarders and other professionals answer the questionnaires related to paying taxes, dealing with construction permits, trading across borders and getting electricity. Information that is incorporated into the indicators is also provided by certain public officials (such as registrars from the company or property registry).

The Doing Business approach is to work with legal practitioners or other 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 a business or registering a building, 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.

There are two main reasons that Doing Business does not survey firms. The first relates to the frequency with
which firms engage in the transactions captured by the indicators, which is generally low. For example, a firm goes through the start-up process once in its existence, while an incorporation lawyer may carry out 10 such transactions each month. The incorporation lawyers and other experts providing information to Doing Business are therefore better able to assess the process of starting a business than are individual firms. They also have access to current regulations and practices, while a firm may have faced a different set of rules when incorporating years before. The second reason is that the Doing Business questionnaires mostly gather legal information, which firms are unlikely to be fully familiar with. For example, few firms will know about all the many legal procedures involved in resolving a commercial dispute through the courts, even if they have gone through the process themselves. But a litigation lawyer should have little difficulty in providing the requested information on all the processes.

Governments and World Bank Group regional staff

After receiving the completed questionnaires from the Doing Business respondents, verifying the information against the law and conducting follow-up inquiries to ensure that all relevant information is captured, the Doing Business team shares the preliminary descriptions of regulatory reforms with governments (through the World Bank Group’s Board of Executive Directors) and with regional staff of the World Bank Group. Through this process government authorities and World Bank Group staff working on most of the economies covered can alert the team about, for example, regulatory reforms not included by the respondents or additional achievements of regulatory reforms already captured in the database. The Doing Business team can then turn to the local private sector experts for further consultation and, as needed, corroboration. In addition, the team responds formally to the comments of governments or regional staff and provides explanations of the scoring decisions.

Data adjustments

Information on data corrections is provided in the data notes and on the Doing Business website. A transparent complaint procedure allows anyone to challenge the data. From November 2015 to October 2016 the team received and responded to more than 240 queries on the data. If changes in data are confirmed, they are immediately reflected on the website.

USES OF THE DOING BUSINESS DATA

Doing Business was designed with two main types of users in mind: policy makers and researchers. It is a tool that governments can use to design sound business regulatory policies. Nevertheless, the Doing Business data are limited in scope and should be complemented with other sources of information. Doing Business focuses on a few specific rules relevant to the specific case studies analyzed. These rules and case studies are chosen to be illustrative of the business regulatory environment, but they are not a comprehensive description of that environment. By providing a unique data set that enables analysis aimed at better understanding the role of business regulation in economic development, Doing Business is also an important source of information for researchers.

Governments and policy makers

Doing Business offers policy makers a benchmarking tool useful in stimulating policy debate, both by exposing potential challenges and by identifying good practices and lessons learned. Despite the narrow focus of the indicators, the initial debate in an economy on the results they highlight typically turns into a deeper discussion on areas where business regulatory reform is needed, including areas well beyond those measured by Doing Business.

Many Doing Business indicators can be considered actionable. For example, governments can set the minimum capital requirement for new firms, invest in company and property registries to increase their efficiency, or improve the efficiency of tax administration by adopting the latest technology to facilitate the preparation, filing and payment of taxes by the business community. And they can undertake court reforms to shorten delays in the enforcement of contracts. But some Doing Business indicators capture procedures, time and costs that involve private sector participants, such as lawyers, notaries, architects, electricians or freight forwarders. Governments may have little influence in the short run over the fees these professions charge, though much can be achieved by strengthening professional licensing regimes and preventing anticompetitive behavior. And governments have no control over the geographic location of their economy, a factor that can adversely affect businesses.

While many Doing Business indicators are actionable, this does not necessarily mean that they are all “action-worthy” in a particular context. Business regulatory reforms are only one element of a strategy aimed at improving competitiveness and establishing a solid foundation for sustainable economic growth. There are many other important goals to pursue—such as effective management of public finances, adequate attention to education and training, adoption of the latest technologies to boost economic productivity and the quality of public services, and appropriate regard for air and water quality to safeguard public health. Governments must decide what set of priorities best suits their needs. To say that governments should work toward a sensible set of rules for private sector activity (as embodied, for example, in the Doing Business indicators) does not suggest that doing so should come at the expense of other worthy policy goals.

Over the past decade governments have increasingly turned to Doing Business as a repository of actionable, objective data providing unique insights into
good practices worldwide as they have come to understand the importance of business regulation as a driving force of competitiveness. To ensure the coordination of efforts across agencies, economies such as Colombia, Malaysia and Russia have formed regulatory reform committees. These committees use the Doing Business indicators as one input to inform their programs for improving the business environment. More than 40 other economies have also formed such committees. In East Asia and the Pacific they include: Brunei Darussalam; Indonesia; the Republic of Korea; the Philippines; Taiwan, China; and Thailand. In the Middle East and North Africa: the Arab Republic of Egypt, Kuwait, Morocco, Saudi Arabia and the United Arab Emirates. In South Asia: India and Pakistan. In Europe and Central Asia: Albania, Croatia, Georgia, Kazakhstan, Kosovo, the Kyrgyz Republic, the former Yugoslav Republic of Macedonia, Moldova, Montenegro, Poland, Tajikistan, Ukraine and Uzbekistan. In Sub-Saharan Africa: the Democratic Republic of Congo, the Republic of Congo, Côte d'Ivoire, Burundi, Guinea, Kenya, Liberia, Malawi, Mali, Mauritius, Nigeria, Rwanda, Sierra Leone, Togo, Zambia and Zimbabwe. And in Latin America: Chile, Costa Rica, the Dominican Republic, Guatemala, Mexico, Panama and Peru. Governments have reported more than 2,900 regulatory reforms, 777 of which have been informed by Doing Business since 2003.10

Many economies share knowledge on the regulatory reform process related to the areas measured by Doing Business. Among the most common venues for this knowledge sharing are peer-to-peer learning events—workshops where officials from different governments across a region or even across the globe meet to discuss the challenges of regulatory reform and to share their experiences.

**Think tanks and other research organizations**

Doing Business data are widely used by think tanks and other research organizations, both for the development of new indexes and to produce research papers.

Many research papers have shown the importance of business regulation and how it relates to different economic outcomes.11 One of the most cited theoretical mechanisms on how excessive business regulation affects economic performance and development is that it makes it too costly for firms to engage in the formal economy, causing them not to invest or to move to the informal economy. Recent studies have conducted extensive empirical testing of this proposition using Doing Business and other related indicators.

According to one study, for example, a reform that simplified business registration in Mexican municipalities increased registration by 5% and wage employment by 2.2%—and, as a result of increased competition, reduced the income of incumbent businesses by 3%.12 Business registration reforms in Mexico also resulted in 14.9% of informal business owners shifting to the formal economy.13

Considerable effort has been devoted to studying the link between government regulation of firm entry and employment growth. In Portugal business reforms resulted in a reduction of the time and cost needed for company formalization, increasing the number of business start-ups by 17% and creating 7 new jobs per 100,000 inhabitants per month. But although these start-ups were smaller and more likely to be female-owned than before the reform, they were also headed by less experienced and poorly-educated entrepreneurs with lower sales per worker.14

In many economies companies engaged in international trade struggle with high trade costs arising from transport, logistics and regulations, impeding their competitiveness and preventing them from taking full advantage of their productive capacity. With the availability of Doing Business indicators on trading across borders—which measure the time, procedural and monetary costs of exporting and importing—several empirical studies have assessed how trade costs affect the export and import performance of economies. A rich body of empirical research shows that efficient infrastructure and a healthy business environment are positively linked to export performance.15

Improving infrastructure efficiency and trade logistics bring documented benefits to an economy’s balance of trade and individual traders but delays in transit time can reduce exports: a study analyzing the importance of trade logistics found that a 1-day increase in transit time reduces exports by an average of 7% in Sub-Saharan Africa.16 Another study found that a 1-day delay in transport time for landlocked economies and for time-sensitive agricultural and manufacturing products has a particularly large negative impact, reducing trade by more than 1% for each day of delay.17 Delays while clearing customs procedures also negatively impact a firm’s ability to export, particularly when goods are destined for new clients.18 And in economies with flexible entry regulations, a 1% increase in trade is associated with an increase of more than 0.5% in income per capita, but has no positive income effects in economies with more rigid regulation.19 Research has also found that—although domestic buyers benefit from having goods of varying quality and price to choose from—import competition only results in minimal quality upgrading in OECD high-income economies with cumbersome regulation while it has no effect on quality upgrading in non-OECD economies with cumbersome regulation.20 Therefore, the potential gains for consumers from import competition are reduced where regulations are cumbersome.

Doing Business measures aspects of business regulation affecting domestic firms. However, research shows that better business regulation—as measured by
Doing Business—is associated with higher levels of foreign direct investment. Furthermore, foreign direct investment can either impede or promote domestic investment depending on how business-friendly entry regulations are in the host economy. In fact, foreign direct investment has been shown to crowd out domestic investment in economies with costly processes for starting a business. Another study showed that economies with higher international market integration have, on average, easier and simpler processes for starting a business.

Recent empirical work shows the importance of well-designed credit market regulations and well-functioning court systems for debt recovery. For example, a reform making bankruptcy laws more efficient significantly improved the recovery rate of viable firms in Colombia. In a multi-economy study, the introduction of collateral registries for movable assets was shown to increase firms’ access to finance by approximately 8%. In India the establishment of debt recovery tribunals reduced non-performing loans by 28% and lowered interest rates on larger loans, suggesting that faster processing of debt recovery cases cut the cost of credit. An in-depth review of global bank flows revealed that firms in economies with better credit information sharing systems and higher branch penetration evade taxes to a lesser degree. Strong shareholder rights have been found to lower financial frictions, especially for firms with large external finance relative to their capital stock (such as small firms or firms in distress).

There is also a large body of theoretical and empirical work investigating the distortionary effects of high tax rates and cumbersome tax codes and procedures. According to one study, business licensing among retail firms rose 13% after a tax reform in Brazil. Another showed that a 10% reduction in tax complexity is comparable to a 1% reduction in effective corporate tax rates.

Labor market regulation—as measured by Doing Business—has been shown to have important implications for the labor market. According to one study, graduating from school during a time of adverse economic conditions has a persistent, harmful effect on workers’ subsequent employment opportunities. The persistence of this negative effect is stronger in countries with stricter employment protection legislation. Rigid employment protection legislation can also have negative distributional consequences. A study on Chile, for example, found that the tightening of job security rules was associated with lower employment rates for youth, unskilled workers and women.

Indexes

Doing Business identified 17 different data projects or indexes that use Doing Business as one of its sources of data. Most of these projects or institutions use indicator level data and not the aggregate ease of doing business ranking. Starting a business is the indicator set most widely used, followed by labor market regulation and paying taxes. These indexes typically combine Doing Business data with data from other sources to assess an economy along a particular aggregate dimension such as competitiveness or innovation. The Heritage Foundation’s Index of Economic Freedom, for example, has used six Doing Business indicators to measure the degree of economic freedom in the world. Economies that score better in these six areas also tend to have a high degree of economic freedom.

Similarly, the World Economic Forum uses Doing Business data in its Global Competitiveness Index to demonstrate how competitiveness is a global driver of economic growth. The organization also uses Doing Business indicators in four other indexes that measure technological readiness, human capital development, travel and tourism sector competitiveness and trade facilitation. These publicly accessible sources expand the general business environment data generated by Doing Business by incorporating it into the study of other important social and economic issues across economies and regions. They prove that, taken individually, Doing Business indicators remain a useful starting point for a rich body of analysis across different areas and dimensions in the research world.

Doing Business has contributed substantially to the debate on the importance of business regulation for economic development. By expanding the time series and the scope of the data with the recent methodology expansion, Doing Business hopes to continue being a key reference going forward.

NEW AREAS INCLUDED IN THIS YEAR’S REPORT

This year’s Doing Business report includes data for one new economy, Somalia, expands the paying taxes indicators, includes gender dimensions in four indicator sets and adds a new annex on selling to the government.

For any new indicators or economies added to the distance to frontier score and the ease of doing business ranking, the data are presented for the last two consecutive years to ensure that there are at least two years of comparable data.

Paying taxes

The paying taxes indicator set is the last to be expanded as part of the methodology improvement process started three years ago that affects 9 of the 10 areas covered in the ease of doing business ranking. Only the starting a business indicators remain under the original methodology.

The paying taxes indicator set assesses the number of payments, time and total tax rate for a firm to comply with all tax regulations. This year’s report adds a new indicator to include postfiling processes. Under postfiling processes,
**Doing Business** measures value added tax refund, corporate income tax audits and administrative tax appeals. Under value added tax refunds, **Doing Business** measures how long it takes to comply and to obtain back the value added tax paid on a capital purchase (including any value added tax audits associated with it). Under the corporate income tax audits, **Doing Business** focuses on the time it takes and the process to complete a tax audit when a firm mistakenly declares a lower tax liability than it should have. **Doing Business** also measures good practices in the tax appeals process, such as independence from the tax collecting agency, but those are not scored. In this year’s report there is a case study dedicated to analyzing the results of this methodology expansion.

**Adding gender components**

This year’s **Doing Business** report presents a gender dimension in four of the indicator sets: starting a business, registering property, enforcing contracts and labor market regulation. Three of these areas are included in the distance to frontier score and in the ease of doing business ranking, while the fourth—labor market regulation—is not.

**Doing Business** has traditionally assumed that the entrepreneurs or workers discussed in the case studies were men. This was incomplete by not reflecting correctly the **Doing Business** processes as applied to women—which in some economies may be different from the processes applied to men. Starting this year, **Doing Business** measures the starting a business process for two case scenarios: one where all entrepreneurs are men and one where all entrepreneurs are women. In economies where the processes are more onerous if the entrepreneur is a woman, **Doing Business** now counts the extra procedures applied to roughly half of the population that is female (for example, obtaining a husband’s consent or gender-specific requirements for opening a personal bank account when starting a business).

Within the registering property indicators, a gender component has been added to the quality of land administration index. This component measures women’s ability to use, own, and transfer property according to the law. Finally, within the enforcing contracts indicator set, economies will be scored on having equal evidentiary weight of women’s and men’s testimony in court.

The labor market regulation indicators have included data on gender components for the past two years. These data include: whether nonpregnant and non-nursing women can work the same night hours as men; whether the law mandates equal remuneration for work of equal value; whether the law mandates non-discrimination based on gender in hiring; whether the law mandates paid or unpaid maternity leave; the minimum length of paid maternity leave; and whether employees on maternity leave receive 100% of wages.

**Selling to the government**

The analysis uses a new pilot indicator set, selling to the government, which measures public procurement regulation and is presented as an annex to this year’s report. The procurement process is analyzed across five main areas: accessibility and transparency, bid security, payment delays, incentives for small and medium-size enterprises and complaints mechanisms. Accessibility and transparency covers whether information is accessible to prospective bidders and how that information can be accessed. The analysis on bid security discusses the amount that prospective bidders need to pay upfront in order to be considered in the bidding process and the form of the security deposit. For payment delays, the annex presents the time it takes for the firm to receive payment from the government after the contract is completed and the service has been delivered. The incentives for small and medium-size enterprises component measures whether economies have set up specific legal provisions or policies to promote fair access for small and medium-size firms to government contracts. And for the complaints mechanism component, the annex discusses the process to file a grievance regarding a public procurement project, including who can file a complaint, where to file a complaint and what remedies are granted.

**NOTES**

1. Data from the World Bank Enterprise Surveys and **Doing Business** complement each other as two sides of the same coin. They both provide useful information on the business environment of an economy, but in significantly different ways. The scope of **Doing Business** is narrower than the Enterprise Surveys. However, by focusing on actionable indicators related to business regulation, **Doing Business** provides a clear roadmap for governments to improve. **Doing Business** uses standardized case scenarios while the Enterprise Surveys use representative samples. For more on the Enterprise Surveys and the differences between the Enterprise Surveys and **Doing Business**, see the website at http://www.enterprisesurveys.org.

2. These papers are available on the **Doing Business** website at http://www.doingbusiness.org/methodology.

3. For getting credit, indicators are weighted proportionally, according to their contribution to the total score, with a weight of 60% assigned to the strength of legal rights index and 40% to the depth of credit information index. In this way each point included in these indexes has the same value independent of the component it belongs to. Indicators for all other topics are assigned equal weights. For more details, see the chapter on the distance to frontier and ease of doing business ranking.


6. For the law library, see the website at http://www.doingbusiness.org/law-library.

7. The annual data collection exercise is an update of the database. The **Doing Business** team and the contributors examine the extent to which the regulatory framework has changed in ways relevant for the features captured by the indicators. The data collection process should therefore be seen as adding each year to an existing stock of knowledge reflected in the previous year’s report, not as creating an entirely new data set.

8. While about 12,500 contributors provided data for this year’s report, many of them completed a questionnaire for more than one **Doing Business** indicator set. Indeed, the total number of contributions received for this year’s report is more than 15,700, which represents a true measure of the inputs.
received. The average number of contributions per indicator set and economy is more than seven. For more details, see http://www.doingbusiness.org/contributors/doing-business.

9. The focus of the Doing Business indicators remains the regulatory regime faced by domestic firms engaging in economic activity in the largest business city of an economy. Doing Business was not initially designed to inform decisions by foreign investors, though investors may in practice find the data useful as a proxy for the quality of the national investment climate. Analysis done in the World Bank Group’s Global Indicators Group has shown that countries that have sensible rules for domestic economic activity also tend to have good rules for the activities of foreign subsidiaries engaged in the local economy.

10. These are reforms for which Doing Business is aware that information provided by Doing Business was used in shaping the reform agenda.

11. The papers cited here are just a few examples of research done in the areas measured by Doing Business. Since 2003, when the Doing Business report was first published, 2,182 research articles discussing how regulation in the areas measured by Doing Business influences economic outcomes have been published in peer-reviewed academic journals. Another 6,296 working papers have been posted online.

33. The 17 indexes are: the Millennium Challenge Corporation’s Open Data Catalog; the Heritage Foundation’s Index of Economic Freedom (IEF); the World Economic Forum’s Global Competitiveness Yearbook; the World Economic Forum’s Global Competitiveness Yearbook; the Networked Readiness Index (NRI) jointly with INSEAD; the Human Capital Index (HCI); the Enabling Trade Index (ETI) and Travel and Tourism Competitiveness Index (TTCI); the INSEAD’s Global Talent Competitiveness Index (GTCI); and the Global Innovation Index (GII) jointly with Cornell University and the World Intellectual Property Organization; the Fraser Institute’s Economic Freedom of the World (EFW); KPMG’s Change Readiness Index (CRI); Citi and Imperial College London’s Digital Money Index; International Institute for Management Development’s Global Competitiveness Yearbook; DHL’s Global Connectedness Index (GCI); PricewaterhouseCoopers’ Paying Taxes 2016: The Global Picture; and Legatum Institute’s Legatum Prosperity Index.
34. For more on the Heritage Foundation’s Index of Economic Freedom, see the website at http://heritage.org/index.
Reforming the Business Environment in 2015/16

Efficient business regulation leads to greater market entry, job creation, higher productivity and improved levels of overall economic development. Even though the scope of the Doing Business indicators is limited by necessity, there is well-established evidence that moving from the lowest quartile of improvement in business regulation to the highest quartile is associated with significant increases in annual economic growth per capita. A large body of literature indicates that the simplification of business entry regulation results in higher numbers of new businesses and an increased rate of employment. Research covering 172 economies in the period from 2006 to 2010 shows that each additional business regulatory reform is associated with an average increase of 0.15% in economic growth. Indeed, business regulatory reforms might have helped to mitigate the effects of the 2008 global financial crisis since economies that undertook more reforms experienced higher economic growth rates.

In Japan the government aims to improve the economy’s Doing Business ranking from 19 (among 31 OECD high-income economies) to the top three. To achieve this goal, Haidar and Hoshi (2015) outlined 31 reform recommendations classified into six different categories depending on whether the reform was administrative or legal and on the level of potential political resistance. Proposed administrative changes with low political resistance include the electronic submission and processing of export and import documents, fast-track procedures for property transfers and the consolidation of bureaucratic processes at the Legal Affairs Office. Administrative changes with medium political resistance focus on the reduction of the number of procedures to obtain a construction permit, development of specialized commercial courts and expansion of case management systems. An administrative change that will most likely face high political resistance is the introduction of performance measures for judges due to the division of power between the legal system, the government and the business environment.

In the year ending June 1, 2016, 137 economies implemented 283 total reforms across the different areas measured by Doing Business, an increase of over 20% from last year.

Doing Business has recorded more than 2,900 regulatory reforms making it easier to do business since 2004.

The economies showing the most notable improvement in performance on the Doing Business indicators in 2015/16 were Brunei Darussalam, Kazakhstan, Kenya, Belarus and Indonesia.

Reforms inspired by Doing Business have been implemented by economies in all regions. But Europe and Central Asia continues to be the region with the highest share of economies implementing at least one reform—96% of economies in the region have implemented at least one business regulatory reform.

Starting a business continues to be the most common reform area with 49 reforms, followed by paying taxes with 46.

Increasingly, the competitiveness of cities is seen as an important driver of job creation and economic growth. By focusing on cities, subnational Doing Business studies contribute to the improvement of their competitiveness, providing information to policy makers on how to reform the business regulatory environment.
BOX 3.1 India has embarked on an ambitious reform path

The current government of India was elected in 2014 on a platform of increasing job creation, mostly through encouraging investment in the manufacturing sector. Soon after the elections policy makers realized that for this to occur substantial improvements would need to be made to the country’s overall business regulatory environment. The Doing Business indicators have been employed as one of the main measures to monitor improvements in India’s business climate. As a result of the election platform-driven reform agenda, over the past two years the Doing Business report has served as an effective tool to design and implement business regulatory reforms.

The data presented by the Doing Business indicators have led to a clear realization that India is in need of transformative reforms. The country has embarked on a fast-paced reform path, and the Doing Business 2017 report acknowledges a number of substantial improvements. For example, India has achieved significant reductions in the time and cost to provide electricity connections to businesses. In 2015/16 the utility in Delhi streamlined the connection process for new commercial electricity connections by allowing consumers to obtain connections for up to 200 kilowatt capacity to low-tension networks. This reform led to the simplification of the commercial electricity connection process in two ways. First, it eliminated the need to purchase and install a distribution transformer and related connection materials, as the connection is now done directly to the distribution network, leading to a reduction in cost. Second, the time required to conduct external connection works by the utility has been greatly reduced due to the low-tension connection and there is no longer a need to install a distribution transformer. As a result, the time needed to connect to electricity was reduced from 138 days in 2013/14 to 45 days in 2015/16. And in the same period, the cost was reduced from 846% of income per capita to 187%.

Over the past three years, the utility in Delhi has substantially reduced the time and cost of obtaining an electricity connection

<table>
<thead>
<tr>
<th>Cost (% income per capita)</th>
<th>Time (days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>900</td>
<td>160</td>
</tr>
<tr>
<td>800</td>
<td>140</td>
</tr>
<tr>
<td>700</td>
<td>120</td>
</tr>
<tr>
<td>600</td>
<td>100</td>
</tr>
<tr>
<td>500</td>
<td>80</td>
</tr>
<tr>
<td>400</td>
<td>60</td>
</tr>
<tr>
<td>300</td>
<td>40</td>
</tr>
<tr>
<td>200</td>
<td>20</td>
</tr>
<tr>
<td>100</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: Doing Business database.

Furthermore, India has made paying taxes easier by introducing an electronic system for paying employee state insurance contributions. In the area of trade, as of April 2016 the Customs Electronic Commerce Interchange Gateway portal allowed for the electronic filing (e-filing) of integrated customs declarations, bills of entry and shipping bills, reducing the time and cost for export and import documentary compliance. The portal also facilitates data and communication exchanges between applicants and customs, reducing the time for export and import border compliance. Additionally, an Integrated Risk Management System has become fully operational and ensured that all the consignments are selected based on the principles of risk management. Furthermore, the government of India adopted the Companies (Amendment) Act (No. 21) in May 2015. The amendments were published in the official gazette and immediately entered into force upon notification by the Ministry of Corporate Affairs. As a result, the minimum capital requirement for company incorporation was abolished and the requirement to obtain a certificate to commence business operations was eliminated. To improve court efficiency, the passage of the Commercial Courts, Commercial Divisions and Commercial Appellate Divisions Act of 2015 established effective mechanisms for addressing commercial cases. And in May 2016 the government of India enacted the Insolvency and Bankruptcy Code (IBC), which—when it comes into effect—will overhaul the 60-year-old framework for company liquidation and introduce new insolvency practices.

The experience of implementing reforms based on Doing Business data has demonstrated to the government the significance of establishing clear stakeholder feedback mechanisms to close the gaps between policy formulation and implementation. Finally, the government has also acknowledged the need to implement reforms across the country—not just in Mumbai and Delhi, which are the cities covered by Doing Business. Lawmakers have recommended the implementation of a large number of reforms across all states, going beyond the scope of Doing Business.
Regulatory reforms inspired by Doing Business have been implemented by economies in all regions. Rwanda, which ranks second in Africa in Doing Business 2017, is an example of an economy that used Doing Business as a guide to improve its business environment. From Doing Business 2005 to Doing Business 2017 Rwanda implemented a total of 47 reforms across all indicators. Rwanda is one of only 10 economies that have implemented reforms in all of the Doing Business indicators and every year since Doing Business 2006. These reforms are in line with Rwanda’s Vision 2020 development strategy, which aims to transform Rwanda from a low-income economy to a lower-middle-income economy by raising income per capita from $290 to $1,240 by 2020.

Doing Business is widely used by policy makers in Sub-Saharan Africa to advance their reform agendas. Some of these economies have established units dedicated to specific reform action plans targeting the Doing Business indicators. In Kenya, for example, the Ease of Doing Business Delivery Unit operates under the leadership of the Ministry of Industrialization and the Deputy President, meeting on average every two weeks to discuss progress on an established action plan. The meeting is chaired by either the Deputy President or the Minister of Industrialization, while several stakeholder agencies are responsible for implementing measures outlined in the action plan.

In Burundi, the investment climate reform agenda is overseen by the Office of the Second Vice President. The dedicated Doing Business Intelligence Committee comprises several ministers and is supported by an executive secretariat, which assumes the day-to-day work and reform coordination as well as public-private dialogue and communication on current reforms. Nigeria’s government, which came to power in 2015, has placed a strong emphasis on increasing the country’s competitiveness. In early 2016 Nigeria established the Presidential Enabling Business Environment Council, which is chaired by the Vice President; the Federal Minister of Industry, Trade and Investment is the vice-chairman. The Council’s main mandate is the supervision of the competitiveness and investment climate agenda at the federal and state levels, while the Enabling Business Environment Secretariat is charged with day-to-day reform implementation.

Similarly, the Prime Minister of Côte d’Ivoire is the champion of the investment climate reform agenda and chairs the National Interdepartmental Doing Business Committee. The prerogative of this committee, which includes public and private sector stakeholders, is to formulate the reform agenda and to ensure the high-level monitoring of its implementation. Its permanent secretariat assumes coordination and implementation of the established reform agenda.

In Zimbabwe, the Office of the President and Cabinet oversees the Doing Business reform initiative using a Rapid Results Initiative approach. The Chief Secretary to the President and Cabinet is the strategic sponsor of the Initiative. Permanent Secretaries from more than 10 ministries are responsible for implementing measures outlined in the action plan for each of the Doing Business indicators.

Recently some reform efforts have advanced beyond the geographic boundaries of individual states. In 2015, 10 economies came together to form the Association of Southeast Asian Nations (ASEAN) Economic Community, a single market economy for goods, services, capital and labor, which—one once it is realized—could result in a market larger than the European Union or North America. This year the 10 ASEAN economies implemented a total of 31 reforms across the Doing Business indicators—including six reforms in the area of paying taxes and six reforms in the area of getting credit. Malaysia, for example, introduced an online system for filing and paying goods and services tax and strengthened credit reporting by beginning to provide consumer credit scores.

ASEAN can also learn from other Asia-Pacific Economic Cooperation (APEC) economies how to reform and create a uniform business environment. The APEC Ease of Doing Business (EoDB) initiative set a goal of an APEC-wide improvement of 25% by 2015 in five Doing Business indicators: starting a business, dealing with construction permits, getting credit, trading across borders and enforcing contracts. This goal—of making doing business faster, cheaper and easier—was endorsed by APEC leaders in 2009. By 2015 APEC economies reached an improvement of 12.7% and launched the EoDB Action Plan (2016-2018) to further this effort. The new target was an improvement of 10% by 2018 in the existing five priority areas using the baseline data of 2015. The main overarching objectives across the recommendations are simplifying and streamlining business processes, creating electronic platforms and establishing a single-interface service.

**HIGHLIGHTS OF REFORMS MEASURED IN DOING BUSINESS IN 2015/16**

The private sector is universally recognized as being a key driver of economic growth and development. Nearly 90% of employment, including formal and informal jobs, occurs within the private sector, which has an abundant potential that should be harnessed. Governments in many economies work together with the private sector to create a thriving business environment. One way of doing this is through implementing effective business regulation that ensures that all actors have fair and equal opportunities to participate in a competitive market. More specifically, effective business regulation can encourage firm creation and growth and minimize market distortions or failures. Doing Business continues to capture dozens of reforms implemented through its 11 indicator sets.
In 2005 Mexico requested that the World Bank expand the Doing Business benchmarks beyond Mexico City to assess the business regulatory environment across states, arguing that the capital city was not representative of Mexico as a whole. A decade later subnational Doing Business studies have been replicated across the globe, measuring 438 locations in 65 economies and recording 583 regulatory reforms. The strong demand for subnational Doing Business studies proves that comparisons among locations within the same economy and the sharing of good practices are strong drivers of reform.

By leveraging the methodology of Doing Business and combining it with a strong engagement strategy with local authorities, subnational Doing Business studies increase ownership of the reform agenda at all levels of government. The results from repeated benchmarking exercises in Colombia and Mexico—three and six rounds, respectively—and the growing commitment from government partners in these countries provide examples of how subnational Doing Business studies can be used as a public policy tool to identify local differences, guide reform efforts and track progress over time.

Over the course of the subnational series in Mexico, the number of states reforming has increased considerably. Greater buy-in from different government institutions has also expanded the range of reforms. The first two rounds recorded reforms in the majority of the states, but not all. However, soon after the first study, competition and collaboration spurred the reform momentum and, since 2012, all the 32 states have embarked on an active path to reform. States and municipalities began to expand their reform efforts to a larger number of areas. They did this by strengthening intragovernmental collaboration—between state, municipal and national authorities—and reaching out to the judiciary. With the support of the judiciary, Mexico introduced legal reforms to facilitate contract enforcement. Between 2012 and 2016 the Mexican states of Colima, Estado de México, Puebla, San Luis Potosí and Sinaloa reformed in all four areas measured by the project. Subnational Doing Business has recorded a total of 252 regulatory improvements across all states in Mexico to date.

In Mexico the top improvers started out as the worst performers

![Graph showing distance to frontier score for starting a business (0–100) with data points for Colima, Estado de México, Guerrero, and Other states from 2007 to 2016.]

Source: Doing Business database.
Note: Among Mexican states Colima, Estado de México and Guerrero have made the most improvement on the starting a business indicator set since 2007.

In Colombia 100% of locations reformed after the first benchmark in 2008. The third round in 2012 covered 23 locations and recorded a total of 62 reforms across all indicators. Those locations that had initially ranked poorly—the large business centers such as Medellín, Bucaramanga and Cartagena—improved the most that year. The findings of the subnational studies spurred technical assistance programs implemented by the national government to support local reforms. The fourth round, in 2017, will expand the geographic coverage to measure all departments (states) in Colombia for the first time.

The findings of subnational Doing Business studies not only encourage competition but also inspire peer-to-peer learning initiatives by highlighting good practices in an economy. Peer-to-peer learning can be one of the most powerful drivers of reforms, particularly when good practices are replicated within the cities of the same economy. Cities with inefficient business regulation benefit the most from such practice, learning from a wealth of information available on national good practices. It is therefore not uncommon to see cities that performed poorly in a business regulatory area to show a steep improvement in the next round of measurement.

(continued)
In 2015/16, 137 economies implemented 283 reforms across different areas measured by Doing Business. The most reformed indicators this cycle are starting a business, paying taxes and getting credit. The region with the highest share of reformers in 2015/16 is Europe and Central Asia, continuing a trend begun well over a decade ago (table 3.1). Indeed, 96% of economies in the region have implemented at least one business regulatory reform recorded by Doing Business 2017. Kazakhstan, Georgia and Belarus are regional leaders on the total count of reforms, implementing seven, five and four reforms, respectively.

In 2015/16, 29 economies implemented a net of at least three reforms improving their business regulatory systems or related institutions as measured by Doing Business. These 29 include economies from all income groups: low-income (seven economies), lower-middle-income (nine), upper-middle-income (eight) and high-income (five). Ten economies in Sub-Saharan Africa made a net of at least three reforms making it easier to do business in 2015/16.

The 10 economies showing the most notable improvement in performance on the Doing Business indicators in 2015/16 were Brunei Darussalam, Kazakhstan, Kenya, Belarus, Indonesia, Serbia, Georgia, Pakistan, the United Arab Emirates and Bahrain (table 3.2). These economies together implemented 48 business

<table>
<thead>
<tr>
<th>Area of reform</th>
<th>Number of reforms in 2015/16</th>
<th>Region with the highest share of reformers in 2015/16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Starting a business</td>
<td>49</td>
<td>Middle East &amp; North Africa</td>
</tr>
<tr>
<td>Dealing with construction permits</td>
<td>18</td>
<td>Europe &amp; Central Asia</td>
</tr>
<tr>
<td>Getting electricity</td>
<td>21</td>
<td>Europe &amp; Central Asia</td>
</tr>
<tr>
<td>Registering property</td>
<td>22</td>
<td>Europe &amp; Central Asia</td>
</tr>
<tr>
<td>Getting credit</td>
<td>34</td>
<td>East Asia &amp; Pacific</td>
</tr>
<tr>
<td>Protecting minority investors</td>
<td>19</td>
<td>Europe &amp; Central Asia</td>
</tr>
<tr>
<td>Paying taxes</td>
<td>46</td>
<td>Europe &amp; Central Asia</td>
</tr>
<tr>
<td>Trading across borders</td>
<td>32</td>
<td>South Asia</td>
</tr>
<tr>
<td>Enforcing contracts</td>
<td>18</td>
<td>Europe &amp; Central Asia</td>
</tr>
<tr>
<td>Resolving insolvency</td>
<td>24</td>
<td>Sub-Saharan Africa</td>
</tr>
</tbody>
</table>

Source: Doing Business database.
Note: The labor market regulation indicators also recorded 21 regulatory changes in the Doing Business 2017 report. These changes are not included in the total reform count.

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**TABLE 3.1** Economies in Europe and Central Asia have the highest share of reformers in 2015/16

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**BOX 3.2 Subnational Doing Business studies in Mexico and Colombia: reforming through competition and collaboration (continued)**

In Colombia the cities of Neiva and Cartagena stand out. Neiva, which ranked last in Colombia’s subnational Doing Business study in 2008, established an “anti-red tape” committee, bringing together the municipality, chamber of commerce, business associations and representatives of national agencies, such as the police and the tax authority. This committee met every month to propose changes to the regulatory environment and monitor progress. As a result, Neiva launched a one-stop shop for business registration which connected the municipal and state governments, eliminating 11 procedures required to start a business and speeding up the process by five weeks.

After finishing near the bottom of the ranking on the ease of starting a business twice in a row, the Mayor of Cartagena put forward an ambitious plan to eliminate the bottlenecks identified by subnational Doing Business. In a joint effort between the city and the private sector, Cartagena was able to implement reforms that reduced the time to register a company by half and costs by over 60%. As a result, Cartagena rose from a ranking of 21 on the ease of starting a business in 2008 to a ranking of 6 in 2012.

Mexican states have also made marked improvements in their performance in the subnational Doing Business studies. In 2007 Colima, Estado de México and Guerrero were several of the states where it was most challenging to start a business. It took on average two months and 18% of income per capita for entrepreneurs to formally start their business. In 2016 it takes entrepreneurs in Colima, Estado de Mexico and Guerrero no more than two weeks to start a business and on average their costs have been reduced by half.

Competitive cities can be drivers of job creation and economic growth. By focusing on cities, the subnational Doing Business studies contribute to the improvement of their competitiveness, providing information to policy makers on how to reform the business regulatory environment. Ultimately, competitive cities can help eliminate extreme poverty and promote prosperity for all citizens.

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In 2015/16, the labor market regulation indicators also recorded 21 regulatory changes in the Doing Business 2017 report. These changes are not included in the total reform count.
TABLE 3.2 The 10 economies improving the most across three or more areas measured by Doing Business in 2015/16

<table>
<thead>
<tr>
<th>Economy</th>
<th>Ease of doing business rank</th>
<th>Change in DTF score</th>
<th>Starting a business</th>
<th>Dealing with construction permits</th>
<th>Getting electricity</th>
<th>Registering property</th>
<th>Getting credit</th>
<th>Protecting minority investors</th>
<th>Paying taxes</th>
<th>Trading across borders</th>
<th>Enforcing contracts</th>
<th>Resolving insolvency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brunei Darussalam</td>
<td>72</td>
<td>5.28</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>35</td>
<td>4.71</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Kenya</td>
<td>92</td>
<td>3.52</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<td>✓</td>
</tr>
<tr>
<td>Belarus</td>
<td>37</td>
<td>3.22</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<td>✓</td>
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</tr>
<tr>
<td>Indonesia</td>
<td>91</td>
<td>2.95</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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</tr>
<tr>
<td>Serbia</td>
<td>47</td>
<td>2.59</td>
<td>✓</td>
<td>✓</td>
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<td>✓</td>
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<td>✓</td>
</tr>
<tr>
<td>Georgia</td>
<td>16</td>
<td>2.45</td>
<td>✓</td>
<td>✓</td>
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<td>✓</td>
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<td>✓</td>
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</tr>
<tr>
<td>Pakistan</td>
<td>144</td>
<td>2.08</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<td>✓</td>
</tr>
<tr>
<td>United Arab Emirates</td>
<td>26</td>
<td>2.07</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Bahrain</td>
<td>63</td>
<td>2.05</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

Source: Doing Business database.

Note: Economies are selected on the basis of the number of reforms and ranked on how much their distance to frontier score improved. First, Doing Business selects the economies that implemented reforms making it easier to do business in 3 or more of the 10 areas included in this year’s aggregate distance to frontier score. Regulatory changes making it more difficult to do business are subtracted from the number of those making it easier. Second, Doing Business ranks these economies on the increase in their distance to frontier score from the previous year. The improvement in their score is calculated not by using the data published in 2015 but by using comparable data that capture data revisions and methodology changes. The choice of the most improved economies is determined by the largest improvements in the distance to frontier score among those with at least three reforms.

regulatory reforms across all of the areas measured by Doing Business. Overall, the 10 top improvers implemented the most regulatory reforms in the areas of getting electricity and registering property—with seven reforms for each indicator set. These economies also actively reformed in the areas of starting a business and protecting minority investors, with six reforms in each area. Kazakhstan and Georgia joined the list of top improvers for the fourth time in the past 12 years.

Two economies from East Asia and the Pacific made it to the list of 10 top improvers. Brunei Darussalam made the biggest advance toward the regulatory frontier in 2015/16, thanks to six business regulatory reforms. Brunei Darussalam, for instance, increased the reliability of power supply by implementing an automatic energy management system to monitor outages and service restoration. To improve access to credit, it began distributing consumer data from utility companies. Brunei Darussalam also passed a new insolvency law, offering protections for secured creditors during an automatic stay in reorganization proceedings. In addition, Brunei Darussalam strengthened minority investor protections by making it easier to sue directors in case of prejudicial related-party transactions and by allowing the rescission of related-party transactions that harm companies.

Indonesia made starting a business easier by abolishing the paid-in minimum capital requirement for small and medium-size enterprises and encouraging the use of an online system for name reservation. In Jakarta, a single form to obtain company registration certificates and trading licenses was also created. Getting electricity was made easier in Indonesia by reducing the time for contractors to perform external work thanks to an increase in the stock of electrical material supplied by the utility. In Surabaya, getting electricity was also made easier after the utility streamlined the process for new connection requests. In addition, Indonesia digitalized its cadastral records and launched a fully automated geographic information system, making it easier to register a property. Moreover, Indonesia established a modern collateral registry and introduced a dedicated procedure for small claims for commercial litigation. In the area of trading across borders, it improved the customs services and document submission functions of the Indonesia National Single Window. Finally, Indonesia made paying taxes easier by introducing an online system for filing tax returns and paying health contributions.

Economies in Europe and Central Asia continued to reform actively in 2015/16. Kazakhstan and Georgia increased the reliability of the electricity supply by starting to penalize utilities for having poor power outage indicators. Both economies also strengthened minority investor protections by increasing shareholder rights in major decisions, clarifying ownership and control structures and requiring greater corporate transparency. In the area of trading across borders, Kazakhstan made exporting less costly by eliminating two documents previously required for customs clearance; Georgia made import and export documentary compliance faster.
by improving its electronic document processing system. Belarus improved its business climate by establishing a one-stop shop at the electricity utility, launching an electronic geographic information system for property registration, providing consumer credit scores to banks and regulated financial institutions and by introducing remedies in cases where related-party transactions are harmful to the company. Owing to streamlined processes and time limits, Serbia reduced the time needed to start a business, obtain a building permit and transfer property.

Pakistan and Bahrain improved access to credit information by adopting new regulations that guarantee by law borrowers’ rights to inspect their credit data. Trading across borders also became easier by improving infrastructure and streamlining procedures in Bahrain and introducing a new electronic platform for customs clearance in Pakistan. Among other reforms, the United Arab Emirates made dealing with construction permits easier by implementing risk-based inspections and streamlining the final joint inspection with the process of obtaining a completion certificate. The United Arab Emirates also reduced the time required to obtain a new electricity connection by implementing a new program with strict deadlines for reviewing applications, carrying out inspections and installing meters. Additionally, the United Arab Emirates introduced compensation for power outages.

Removing obstacles to start up a business

Studies have shown that removing excessive bureaucratic formalities in the start-up process has numerous benefits for both economies and entrepreneurs. Some of these gains include higher levels of firm formalization, economic growth and greater profits. Governments embark on various reform paths to improve business incorporation processes and encourage entrepreneurship. In 2015/16, 49 reforms were captured by the starting a business indicator set, ranging from removing redundant processes required to operate formally to expanding the use of modern technology and creating or improving one-stop shops.

Onerous incorporation processes cost entrepreneurs time and money. During 2015/16 one-third of the reforms captured by the starting a business indicators involved streamlining the formalities for registering a business. The government of Sri Lanka, for example, waived the stamp duty on issued shares. Similarly, by repealing a requirement to have registration documents signed before a commission of oaths Ireland, Kenya and Uganda significantly reduced the time needed by entrepreneurs to start a business. All of these actions have significantly reduced the number of interactions between entrepreneurs and government officials, thereby lowering opportunities for rent-seeking.

Governments continue to improve their efficiency through the use of technology. In the past year, Doing Business data show that economies that implement online procedures see a reduction in the time taken to start a business (figure 3.1). In 2015/16, 20% of economies reforming company startup processes either introduced or improved online portals. The Nigerian Corporate Affairs Commission, for example, launched an online registration portal allowing companies to reserve their names electronically. Rwanda now has a fully functioning electronic portal that combines company registration, information on tax obligations and duties and value added tax registration—saving entrepreneurs an average of two days and eliminating two interactions with government officials.

Several economies also reformed their one-stop shops for business registration in 2015/16. Cyprus merged the process of registration for value added tax and corporate income tax. Likewise, Malta’s companies register and inland revenue department merged their operations to allow the automatic generation of tax identification numbers. The Arab Republic of Egypt created a unit inside its one-stop shop to facilitate and streamline interactions between entrepreneurs and various governmental agencies. Egyptian entrepreneurs now have fewer direct interactions with regulatory agencies when completing both registration and postregistration procedures.

Streamlining the process of obtaining a building permit

The construction industry is a vital sector of an economy. It stimulates growth by...
attracting sizeable investments and supporting supply chains, thereby generating employment and contributing to the process of capital formation.\textsuperscript{13} Research suggests that the construction industry is responsible for 6\% of global GDP—or a 5\% share of GDP in developed economies and an 8\% share in developing economies.\textsuperscript{14} Over the past three years economies have mostly focused their construction-permitting reforms on streamlining procedures and improving coordination among the various agencies involved in the process. Other common areas of improvement included reducing the time and cost incurred by builders, followed by improving electronic platforms and building quality control processes (figure 3.2).

In the area of construction, five of 18 economies reduced the time it takes to obtain a building permit in 2015/16. Algeria and Cameroon, for example, enforced the processing time limits prescribed by law. Similarly, the Democratic Republic of Congo improved building quality controls and compliance with legal time limits to obtain a building permit. Zimbabwe streamlined the approval process for construction permits by improving inter-agency coordination between the Harare City Council and architectural agencies.

Five economies—Cameroon, Côte d’Ivoire, Madagascar, the Philippines and the United Arab Emirates—improved their performance on the building quality control index by increasing the transparency of building regulations. In the Philippines, for example, the Department of Building Official Services of Quezon City updated its website to list the required pre-approvals needed to obtain a construction permit. With respect to cost reduction, both France and San Marino reduced the fees for obtaining a building permit.

Botswana’s Gaborone City Council abolished a requirement to present a rates clearance certificate when applying for a building permit, thereby easing bureaucratic requirements. Poland eliminated a requirement to obtain technical conditions for utilities and clearance from the public roads administrator. Kazakhstan introduced a single window portal to streamline the approvals process to obtain a building permit. The Russian Federation abolished the requirement to obtain an approval to fence construction sites in St. Petersburg. Capitalizing on advancements in modern technology, Serbia made it mandatory to request a building permit online through the e-permit system. Likewise, Singapore enhanced its electronic one-stop shop, making the process of obtaining approvals from different authorities easier. Finally, Albania’s Constitutional Court lifted a moratorium on issuing construction permits. As a result, the issuance of building permits has been resumed.

### Making access to electricity more efficient and reliable

A reliable electricity supply—as well as an efficient connection process—is linked to better firm performance, especially in industries that require a steady supply of electricity.\textsuperscript{15} In fact, a reliable electricity supply is associated with higher firm production efficiency and higher levels of foreign direct investment.\textsuperscript{16} A more efficient connection process is associated with positive electricity sector outcomes, such as higher rates of electrification and lower numbers of bribe payments.\textsuperscript{17} Economies can substantially improve their business environment by investing in the electricity sector.

One index included in the getting electricity indicator set is the quality of supply and transparency of tariffs index. In 2015/16, seven economies—Algeria, Brunei Darussalam, Bulgaria, Georgia, Kazakhstan, the Lao People’s Democratic Republic and the United Arab Emirates—implemented reforms in this capacity. To improve the reliability of the power supply the utility in Bulgaria is now using an automatic energy management system, SCADA (Supervisory Control and Data Acquisition), to monitor power outages and to restore the service. And the utility in Algeria improved the level of transparency in the electricity sector by publishing electricity tariffs online.

Of the 21 reforms captured by the getting electricity indicators, 17 economies implemented reforms improving the efficiency of the electricity connection process. Such reforms included the streamlining of connection procedures, the reduction of connection fees and the creation of one-stop shops. Belarus, for example, established a one-stop shop at the utility that fulfills
all utility connection-related services, including the design and construction of the distribution line. Kenya streamlined the process of getting electricity by introducing the use of a geographic information system that allows the utility to provide price quotes to customers without conducting a site visit. Moreover, all substations, transformers and meters are now mapped on the system which is also linked to well-documented cadastral maps. Customers simply submit all required documentation and wait for quotes to be directly prepared by the utility office (figure 3.3).

Recent amendments to the Construction Law of Poland eliminated the need for an excavation permit, which previously was required for the utility to extend low voltage grids and build medium voltage transformer stations. The utility is now able to carry out external connection works without having to wait for an excavation permit to be issued. As a result of this reform Poland decreased the total time needed to obtain an electricity connection by 11 days.

**Improving the quality of land administration**

Registered property rights are necessary to support investment, productivity and growth. Evidence from economies around the world suggests that property owners with registered titles are more likely to invest—and they have a higher likelihood of getting credit when using property as collateral. It is essential that governments have reliable, up-to-date information in cadasters and land registries to correctly assess and collect taxes. In 2015/16, 22 economies made it easier for businesses to register property by increasing the efficiency of property transfers and improving the quality of land administration. In 17 of these economies, reforms improved the reliability of infrastructure and the transparency of information of land administration systems (figure 3.4).

Among the 190 economies included in Doing Business, Rwanda made the largest improvement on the registering property indicators in 2015/16. The Rwanda Natural Resources Authority introduced a fast track procedure for commercial property transfers, and improved the transparency of the land registry by establishing a land administration services complaints mechanism and by publishing statistics on property transfers. Mexico—another significant improver—modernized its land management infrastructure. Over the past two years, the Mexico City government acquired new information technology infrastructure which enabled it to digitize all recorded land titles and create an electronic database of land ownership.

Among all regions, Sub-Saharan Africa accounts for the largest number of reforms in 2015/16, a total of seven out of 22. Zambia, for example, decreased the property transfer tax. Senegal improved the transparency of information by publishing a list of all required documents, service standards and official fees needed to complete any type of property transaction. In Europe and Central Asia, four economies implemented changes pertinent to the registering property indicators. In 2015, Belarus introduced the new geographic information system which provides free access to information on land plot boundaries and technical information on geospatial location. Additionally, Serbia reduced the time required to transfer a property while Georgia increased coverage of all maps for privately held land plots in Tbilisi.

Indonesia implemented measures to digitize land plans and maps in both Jakarta and Surabaya. As a result of these efforts, the cadastral maps were made publicly available through an online portal. The new online platform provides open

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**FIGURE 3.3** Kenya’s reform led to a reduction in time and streamlined connection procedures

Source: Doing Business database.
access to the geospatial information system, allowing clients to review and verify boundaries of land plots in Indonesia. Pakistan was the sole economy in South Asia to reform property transfers. Starting in 2007, the Punjab province of Pakistan launched the Land Records Management and Information Program to strengthen the capacity of land administration institutions in Lahore. During a five-year period, the project deployed an automated land records system and improved the quality of services provided by the land agency.

**Strengthening access to credit**

Nine economies—Armenia, Brunei Darussalam, The Gambia, Indonesia, the former Yugoslav Republic of Macedonia, Malawi, Nigeria, Papua New Guinea and Vanuatu—implemented reforms to strengthen access to credit by transforming and adopting new laws regarding secured transactions, including in some cases by creating an operational unified collateral registry. The parliament enacted a new law in Armenia which establishes a modern and unified collateral registry. Indonesia made registrations, amendments and cancellations at the collateral registry available to the general public through an online portal, Fidusia Online. The Gambia introduced a new law which established a centralized, notice-based collateral registry, a reform that increased The Gambia’s legal rights index score by 4 points. Furthermore, Malawi and Papua New Guinea introduced new secured transactions legislation and established modern unified collateral registries. Both registries are now fully operational, resulting in an improvement in the ability of small businesses to obtain credit as they can now use firm assets as collateral.

Twenty-seven economies implemented reforms improving their credit information systems in 2015/16 (figure 3.5). Guyana and Tanzania made the largest improvements by expanding borrower coverage. Tanzania’s credit bureau, Creditinfo, expanded its borrower coverage from 4.97% to 6.48% of the adult population, aided in part by signing agreements with retailers and merchants to share credit data on their customers. Similarly, Creditinfo Guyana, which became operational in May 2015, expanded its borrower coverage from 2.40% to 16.40% of the adult population through obtaining data from one microfinance institution, one trade creditor and one water utility company as well as from six private commercial banks.

Over the past Doing Business cycle, six economies established legal frameworks to improve the functioning of credit reporting markets, most of them in Sub-Saharan Africa. Mozambique, for example, enacted a new law that allows the establishment of a credit bureau. The national assemblies of Burkina Faso and Togo passed the Uniform Law, providing the legal framework for the establishment, licensing, organization of activities and supervision of credit bureaus. This same law was previously adopted in Côte d’Ivoire, Mali, Niger and Senegal, where new credit bureaus became operational in February 2016.

Several other economies improved features of existing credit reporting systems. In six economies, credit bureaus and registries began offering credit scores to banks and other financial institutions to help them assess the creditworthiness of borrowers. In Thailand, for example, the National Credit Bureau started offering consumer and commercial credit scoring.
Credit scores pool information across many creditors as well as some public information sources. Such scores offer lenders information that is otherwise unavailable to any individual creditor, including total exposure, number of outstanding loans and previous defaults. This, in turn, aids the decision making of lenders when assessing loan applications.

Brunei Darussalam, China, Tanzania and Tunisia expanded the scope of information collected and reported by credit reporting service providers by distributing data from retailers or utility companies. Economies also enacted reforms guaranteeing borrowers’ rights to access and inspect their data. In Bahrain, for example, clients of a credit bureau have the right to obtain a free credit report once every 12 months, to add information to their credit report and to file a complaint or objection related to the accuracy or limitation of the information contained in their credit report. In Pakistan there is a legal obligation for a credit bureau to provide a borrower with a copy of a credit report.

**Strengthening the rights of minority shareholders**

Firm-level research on a sample of nearly 1,000 firms in the United States shows a robust negative association between restrictions on shareholder rights and the market value of firms relative to the total value of their assets. The more shareholder rights are limited the more undervalued firms tend to be. Moreover, an analysis of controlled companies—where ownership is concentrated typically in the hands of the founding family—highlights that sound corporate governance should be comprised of two strategies: enhancing the rights of minority shareholders and moderating the powers of the controlling shareholder.

To comply with internationally-accepted good practices, in 2015/16 19 economies strengthened the rights of minority shareholders. Georgia enacted amendments to the Law on Securities Market and the Law on Entrepreneurs. These amendments directly address shareholders’ rights with respect to preemptive rights, voting rights, ownership and control. As a result, Georgia’s score increased from 6 to 7 on the extent of shareholder rights index and from 4 to 8 on the extent of ownership and control index.

Fiji, Morocco, Saudi Arabia and Vietnam introduced greater requirements for corporate transparency into their laws and regulations. Such laws promote detailed disclosure of primary employment, appointments and remuneration of directors, ensure detailed and advance notice of general meetings of shareholders, oblige members of limited liability companies to meet at least once per year and allow shareholders to add items to the meeting agenda. These reforms resulted in an improvement in the scores of these four economies on the corporate transparency index.

Croatia, Kenya, Mauritania, Niger, Sri Lanka and Ukraine introduced legal changes focused on mitigating the potential prejudicial effect of conflicts of interest, particularly in the context of related-party transactions. Croatia, for example, now requires that directors disclose in detail to the management board and supervisory board of their company all relevant facts about the nature, relationship and existence of their conflicts of interest before considering any proposed resolution to enter into a major transaction. Likewise, in Ukraine, interested directors and interested shareholders are now excluded from the vote approving the transaction in which they have a conflict of interest. Lastly, Sri Lanka introduced a Code of Best Practices on Related Party Transactions in 2013, at first on a voluntary basis. Since January 2016 all companies listed on the Colombo Stock Exchange must comply with its requirements, which include board approval of such transactions and detailed disclosure by board members.

**Enhancing electronic tax filing systems**

Properly developed, effective taxation systems are crucial for a well-functioning society. In most economies taxes are the main source of federal, state and local government revenues that are needed to fund projects related to health care, education, public transport and unemployment benefits, among others. The corporate tax burden has a direct impact on investment and growth. And tax administration efficiency is as important to businesses as effective tax rates. A low cost of tax compliance and efficient tax-related procedures are advantageous for firms. Overly complicated tax systems are
associated with high levels of tax evasion, large informal sectors, more corruption and less investment. Tax compliance systems should be designed so as not to discourage businesses from participating in the formal economy. Modern tax administrations seek to optimize tax collections while minimizing administration costs and taxpayer compliance costs.

Of the 46 reforms captured by the paying taxes indicators, 26 economies either implemented new online systems for filing and paying taxes or improved the already existing online platforms in 2015 (figure 3.6). Italy, for example, introduced two improvements to its online system used by business taxpayers for filing labor taxes and mandatory contributions. Employers are now only required to enter personal information about employees once—at the beginning of employment and then it is carried forward automatically to future periods—and the payment process for labor taxes and mandatory contributions has been upgraded. The system now allows the previous period’s payment request to be copied into the current one—it retains all relevant information such as taxpayer identification and the purpose and destination of the payment. Singapore was one of the first economies to introduce an electronic system for public administration. In 1992 the Inland Revenue Authority of Singapore developed an integrated and computerized tax administration system, making internal processes more efficient by freeing staff from unproductive bureaucratic tasks. As a result, between 1992 and 2000 the time needed to issue tax assessments decreased from 12-18 months to 3-5 months. Singapore continues to improve its tax compliance system even though it is among the best performers on the paying taxes indicators. In 2015 the online system underwent further upgrades, allowing for fewer delays in filing returns for corporate income tax and value added tax.

Other reforms were enacted to lower tax costs for businesses. Profit tax rates were reduced in nine economies while seven economies—Angola, Hungary, Italy, Jamaica, Jordan, Kosovo and Spain—either allowed more corporate expense deductions or higher fixed asset tax depreciation. The Dominican Republic decreased its corporate income tax rate while Jordan increased the depreciation rates for certain fixed assets. And eight economies abolished certain taxes. Azerbaijan, for instance, abolished vehicle tax for residents.

**Facilitating international trade through electronic solutions**

Largely because of the progress made in tariff reduction over the last several decades, the focus of global trade policy and reforms has now shifted from trade tariffs to trade facilitation. A better logistics performance in the trade sector is strongly associated with trade growth, export diversification and economic growth. In 2013, World Trade Organization (WTO) member countries signed the Trade Facilitation Agreement (TFA) committing to implement border management policies that make it easier to export and import goods across borders. A recent study suggests that, if the TFA is fully implemented by all member countries, the time spent in customs would be reduced by an average of 1.6 days for imports and 2 days for exports. By the time of the TFA’s full implementation the estimated global welfare gain is expected to be $210 billion per year, with estimates ranging from $16 to $33 annually for each resident of WTO member countries. Among trade reformers, many economies made trading across borders easier by improving their existing electronic systems for both imports and exports, reducing the cost and time of documentary and border compliance (figure 3.7). Argentina, for example, introduced a new Import Monitoring System for products qualified for automatic licenses which is less restrictive and faster than the one previously used. Georgia reduced document processing times by enhancing its electronic document processing system as well as introducing an advanced electronic document submission option. The latter allows electronic registration of containers shipped by sea, eliminating the outdated process of manual registration of containers. Kosovo reduced the time and cost of documentary and border compliance for exporting by advancing its automated customs data management.

![FIGURE 3.6 Electronic systems for filing and paying taxes save compliance time worldwide](image-url)
FIGURE 3.7 Implementation of electronic systems had the most significant impact on time reduction among those economies reforming in trade in 2015/16

![Graph showing total reduction in time (hours) for electronic systems, customs administration, inspection, and infrastructure.]

Source: Doing Business database.
Note: The time reduction captures reforms that were implemented and had a positive impact on time for the trading across borders indicators from June 2015 to June 2016. The reforms recorded during this period can be aggregated into four wide-ranging categories: electronic systems, customs administration, inspections and infrastructure.

System, streamlining customs clearance processes and implementing the Albania-Kosovo Transit Corridor.

Another common feature of trade reforms in 2015/16 is the introduction of—and for some economies, the advancement of—the ASYCUDA (Automated System for Customs Data) World system, an automated customs data management system that facilitates both export and import processes. In Afghanistan the customs department introduced a series of technical improvements to the online document processing system. Both Grenada and Jamaica made significant upgrades to their electronic platforms, resulting in a substantial decrease in the time required for international trade processes. Their systems allow for the electronic submission of customs declarations and supporting trade documents. As a result, customs brokers no longer need to go to several customs clearance officers or government agencies to validate documents. Kosovo, Nepal and St. Lucia also eliminated the use of paper documents by upgrading their ASYCUDA World systems, allowing for payments and submissions of export declarations to be done electronically.

Enhancing judicial efficiency
Efficient contract enforcement is essential to economic development and sustainable growth. Economies with an efficient judiciary in which courts can effectively enforce contractual obligations have more developed credit markets and a higher level of overall development. A stronger judiciary is also associated with more rapid growth of small firms and enhanced judicial system efficiency can improve the business climate, foster innovation, attract foreign direct investment and secure tax revenues. Conscious of the important role played by judicial efficiency, governments have focused their reform efforts on attaining a higher level of court automation. Brunei Darussalam, Hungary, Norway and Spain have introduced an electronic system to file initial complaints with the competent court. Electronic filing streamlines and accelerates the process of commencing a lawsuit. Reducing in-person interactions with court officers also minimizes potential opportunities for corruption and results in fewer appeals, better access to courts and more reliable service of process. These features also reduce the cost to enforce a contract—court users save in reproduction costs and courthouse visits while courts save in storage, archiving and court officers’ costs.

Other economies, mainly high-income economies, have focused their reform efforts on attaining a higher level of court automation. In January 2016, for example, Rwanda implemented the Integrated Electronic Case Management System, a web-based application that integrates five main institutions of the justice sector, throughout Kigali’s courts. Some economies have pushed their automation efforts even further by introducing sophisticated and comprehensive electronic case management systems. In January 2016, for example, Rwanda implemented the Integrated Electronic Case Management System, a web-based application that integrates five main institutions of the justice sector, throughout Kigali’s courts.
Increased transparency and more reliable statistical data on court operations.

Many economies have concentrated their reform efforts on making complex revisions of their civil procedure laws. A third of reforms in 2015/16 entailed approvals of entirely new codes of civil procedure. Bolivia, Brazil, Ecuador, Kazakhstan, Niger and the Syrian Arab Republic are among the economies that implemented such reforms. Several economies, mainly in the Europe and Central Asia region, have approved changes to their mediation laws in an attempt to strengthen alternative dispute resolution mechanisms.

Promoting efficient bankruptcy regimes

Bankruptcy laws are strongly linked to collateral eligibility requirements, access of firms to loans and long-term debt and the level of firms’ financing relative to their size. When it comes to bankruptcy reforms, speeding up the resolution of debt disputes may improve the likelihood of timely repayment. Increasing the protection of creditors and their participation in bankruptcy proceedings may lower the cost of debt and lead to a higher aggregate credit level. Moreover, economies that introduce new reorganization mechanisms may reduce failure rates among firms. Efficient bankruptcy regimes with orderly procedures for the sale and distribution of assets can improve loan terms, leverage ratios and bank recovery rates.

Doing Business recorded 24 reforms in the area of resolving insolvency, mainly in Sub-Saharan African economies, in 2015/16. Substantial regulatory reform efforts have been undertaken by the 17 member states of the Organization for the Harmonization of Business Law in Africa, known by its French acronym OHADA. The organization adopted a revised Uniform Act Organizing Collective Proceedings for Wiping Off Debts in 2015, which introduced a simplified preventive settlement procedure for small companies and a new conciliation procedure for companies facing financial difficulties, encouraging an agreement between a debtor and main creditors. The OHADA Uniform Act also introduced provisions on cross-border insolvency that were implemented in all 17 OHADA member states.

Another region with active reformers in the area of insolvency is East Asia and the Pacific, where Brunei Darussalam, Thailand and Vanuatu made notable progress. Brunei Darussalam completely overhauled its insolvency framework. Prior to the reform, insolvency provisions for liquidation of corporate entities were included in the Companies Act and some rules were incorporated in the Bankruptcy Act, which applied to individuals. The latest reform created a designated legal act encompassing all provisions related to corporate insolvency and reflecting many modern good practices. Companies in Brunei Darussalam now have access to reorganization proceedings in the form of judicial management. Although the insolvency reform in Thailand was less comprehensive it represented a significant achievement in line with initiatives implemented in other economies in East Asia and the Pacific. Thailand expanded the application of its reorganization framework so that not only large companies—but also small and medium-size enterprises—can take advantage of this mechanism. This step is expected to provide relief to many viable companies which otherwise would be forced to cease operations.

Changing labor market regulation

Regulation is important to ensure efficient functioning of labor markets and adequate protection for workers. Studies have shown that labor market regulation can have an impact on aggregate job flows, productivity and informality. The challenge for governments is to strike the right balance between flexibility of employment regulation and worker protection. In 2015/16, 21 economies changed labor rules. Some made their labor regulation more flexible, others more stringent and in some economies the changes were in both directions. Most of the reforms were implemented in Sub-Saharan Africa and EU member states.
Nine economies changed regulation of fixed-term contracts. Norway amended the legislation to allow the use of fixed-term contracts for permanent tasks for a 12-month period. Angola permitted the use of fixed-term contracts for permanent tasks and extended their maximum duration to 120 months. Kazakhstan reformed the legislation to allow for two extensions of fixed-term contracts. By contrast, several economies made regulation of fixed-term contracts more rigid. In Zambia fixed-term contracts can no longer be used for permanent tasks. The Netherlands, Poland, Portugal and the United Arab Emirates reduced the maximum duration of fixed-term contracts and in Zimbabwe the maximum duration of fixed-term contracts was left to the discretion of the Employment Council.

Two economies introduced minimum wages in 2015/16. Myanmar established the first national minimum wage and São Tomé and Príncipe introduced the first minimum wage for the private sector. In addition, Mexico eliminated geographic differences related to minimum wages.

Several economies changed regulation of working hours. Cyprus and Hungary, for example, amended the legislation to allow stores to be open on Sundays. Kazakhstan reduced the premium for work on weekly holidays and Angola changed the premiums for overtime and night work as well as work on weekly holidays.

Moreover, seven economies changed the legislation governing redundancy rules and costs. In Kazakhstan, employers are no longer required to reassign an employee to a different position within the company before making the employee redundant. The Netherlands introduced severance pay for redundancy dismissals for employees with at least two years of continuous employment. Zimbabwe significantly reduced the severance package for redundancy dismissals, which was previously among the highest in the world. Angola and Myanmar increased severance pay requirements for some workers and decreased for others, depending on the length of job tenure. The Comoros reduced the length of notice period and the amount of severance pay for redundancy dismissals and Saudi Arabia increased the notice period for redundancy dismissals.

Finally, in 2015/16 four economies reformed legislation in the area of job quality. The Democratic Republic of Congo enacted a law that prohibits gender discrimination in hiring and Liberia adopted a Decent Work Act that establishes equal remuneration for work of equal value. Cabo Verde introduced unemployment insurance while Brazil expanded eligibility for unemployment benefits.

NOTES

2. Divanbeigi and Ramalho 2015.
6. Haidar and Hoshi 2015.
7. Haidar and Hoshi 2015.
16. Abotsi (2016) finds that the number of power outages experienced in a typical month has a negative impact on the production efficiency of firms in Africa. He also finds that the number of power outages experienced in a typical month has a negative and significant impact on foreign ownership of firms in Africa.
20. The Uniform Law on the Regulation of Credit Information Bureaus (BICs) in the member states of the West African Economic and Monetary Union (UEMOA).
### Making it easier to start a business

<table>
<thead>
<tr>
<th>Feature</th>
<th>Economies</th>
<th>Some highlights</th>
</tr>
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<tr>
<td>Simplified preregistration and registration formalities (publication, notarization, inspection, other requirements)</td>
<td>Benin; Equatorial Guinea; Fiji; Hong Kong SAR, China; Italy; Kenya; Malaysia; Niger; Papua New Guinea; Saudi Arabia; Sierra Leone; Sri Lanka; Thailand; Uganda; Vanuatu</td>
<td>Benin eliminated the need to notarize company bylaws. Equatorial Guinea made the process of starting a business easier by eliminating the need to obtain a copy of the business founders’ criminal records. Ireland made starting a business easier by removing the requirement for a founder to swear before a commissioner of oaths when incorporating a company. Thailand made starting a business easier by creating a single window for registration payment.</td>
</tr>
<tr>
<td>Abolished or reduced paid-in minimum capital requirement</td>
<td>Algeria; Angola; Bahrain; Bosnia and Herzegovina; Burkina Faso; Chad; Indonesia; Mali; Oman; Qatar</td>
<td>Mali reduced the cost of starting a business by reducing the paid-in minimum capital required to register a company. Oman made starting a business easier by reducing the requirement to pay the minimum capital within three months of incorporation.</td>
</tr>
<tr>
<td>Cut or simplified postregistration procedures (tax registration, social security registration, licensing)</td>
<td>Brazil; China; Colombia; Cyprus; Ecuador; Israel; Kazakhstan; Republic of Korea; Lao PDR; Madagascar; Malawi; Malta; Oman; Rwanda; Serbia; Turkey</td>
<td>Brazil made starting a business faster by implementing an online portal for business licenses in Rio de Janeiro. Lao People’s Democratic Republic made starting a business faster by implementing simplified procedures for obtaining a license and registered company seal.</td>
</tr>
<tr>
<td>Introduced or improved online procedures</td>
<td>The Bahamas; Cyprus; Czech Republic; Indonesia; Republic of Korea; Morocco; Nigeria; Rwanda; South Africa</td>
<td>The Bahamas made starting a business easier by allowing local limited liability companies to register online. Indonesia made starting a business easier by allowing the use of the online system for name reservation.</td>
</tr>
<tr>
<td>Introduced or improved one-stop shop</td>
<td>Arab Republic of Egypt; Indonesia; Malta; Niger; Rwanda; United Arab Emirates</td>
<td>The Arab Republic of Egypt and Niger made starting a business easier by merging procedures at the one-stop shop.</td>
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### Making it easier to deal with construction permits

<table>
<thead>
<tr>
<th>Feature</th>
<th>Economies</th>
<th>Some highlights</th>
</tr>
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<tbody>
<tr>
<td>Reduced time for processing permit applications</td>
<td>Algeria; Cameroon; Democratic Republic of Congo; Iraq; Zimbabwe</td>
<td>Algeria enforced legal time limits to process building permit applications. Cameroon put in place a reception desk to check for the completeness of building permit applications upon submission to reduce processing times.</td>
</tr>
<tr>
<td>Streamlined procedures</td>
<td>Botswana; Kazakhstan; Poland; Russian Federation; Serbia; Singapore; United Arab Emirates</td>
<td>Botswana abolished the requirement to submit a rates clearance certificate. Poland eliminated the requirements to obtain technical conditions for utilities, as well as the clearance from the administrator of the public road.</td>
</tr>
<tr>
<td>Adopted new building regulations</td>
<td>Albania</td>
<td>Albania lifted the moratorium on issuing construction permits in June 2015.</td>
</tr>
<tr>
<td>Improved building control process</td>
<td>Cameroon; Côte d’Ivoire; Madagascar; Philippines; United Arab Emirates</td>
<td>Côte d’Ivoire made procedural information concerning the process of obtaining a building permit openly accessible. The Philippines increased the transparency of building regulations by publishing the required pre-approvals to obtain a building permit.</td>
</tr>
<tr>
<td>Reduced fees</td>
<td>France; San Marino</td>
<td>France adopted a fixed fee schedule for warehouses and slightly reduced the tariff per square meter for building fees. San Marino set a fixed fee for building permits.</td>
</tr>
<tr>
<td>Introduced or improved one-stop shop</td>
<td>Serbia; Singapore</td>
<td>Serbia made it mandatory to request a building permit online through the e-permit system. Singapore improved its one-stop shop, CORENET (Construction and Real Estate Network) e-submission system.</td>
</tr>
</tbody>
</table>

### Making it easier to get electricity

<table>
<thead>
<tr>
<th>Feature</th>
<th>Economies</th>
<th>Some highlights</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved regulation of connection processes and costs</td>
<td>Belarus; Lithuania</td>
<td>Belarus made it cheaper to obtain a new electricity connection by setting fixed prices for connections to electric networks and revising the connection fee structure.</td>
</tr>
<tr>
<td>Improved process efficiency</td>
<td>Albania; Azerbaijan; Belarus; Czech Republic; Dominican Republic; Hong Kong SAR, China; India; Indonesia; Iraq; Kazakhstan; Lithuania; Moldova; Poland; Portugal; United Arab Emirates</td>
<td>Lithuania introduced time limits for the utility to connect clients. The Dominican Republic made getting an electricity connection faster by enacting time limits for the utility to approve electrical connection plans. Portugal made getting an electricity connection faster by reducing the time required to approve electrical connection requests.</td>
</tr>
<tr>
<td>Streamlined approval process</td>
<td>Brunei Darussalam; Hong Kong SAR, China; Kenya</td>
<td>Hong Kong SAR, China, streamlined the processes of reviewing applications as site inspections can now be conducted without involving the customer. Kenya introduced the use of a geographic information system which eliminated the need to conduct a site visit.</td>
</tr>
<tr>
<td>Facilitated more reliable power supply and transparency of tariff information</td>
<td>Algeria; Brunei Darussalam; Bulgaria; Georgia; Kazakhstan; Lao PDR; United Arab Emirates</td>
<td>The utility in Lao PDR started fully recording the duration and frequency of outages to compute annual SAIDI and SAIFI. Algeria made getting electricity more transparent by publishing electricity tariffs on the websites of the utility and the energy regulator.</td>
</tr>
<tr>
<td>Feature</td>
<td>Economies</td>
<td>Some highlights</td>
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<tr>
<td>---------------------------------------------</td>
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</tr>
<tr>
<td><strong>Making it easier to register property</strong></td>
<td></td>
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</tr>
<tr>
<td>Increased reliability of infrastructure</td>
<td>Belarus; Indonesia; Mauritius; Mexico; Pakistan; Puerto Rico (U.S.)</td>
<td>Indonesia digitized its cadastral records and set up a geographic information system. In Pakistan the Punjab province launched the Land Records Management and Information Program in order to strengthen the capacity of land administration institutions in Lahore. In Puerto Rico (U.S.), the Registry of Immovable Property was digitized and the majority of land records became accessible in digital format.</td>
</tr>
<tr>
<td>Increased transparency of information</td>
<td>Guyana; Kenya; Qatar; Senegal; Singapore; United Arab Emirates; Uzbekistan; Zimbabwe</td>
<td>Senegal made the list of documents, service standards and official fees to complete a property transaction available online and also updated the cadastral map. The United Arab Emirates published the list of service standards for any operation at the Dubai Land Department.</td>
</tr>
<tr>
<td>Reduced taxes or fees</td>
<td>The Bahamas; Comoros; Zambia</td>
<td>The Bahamas decreased the property transfer tax from 10% to 2.5% of the property value. Zambia reduced the property transfer tax from 10% to 5% of the property value.</td>
</tr>
<tr>
<td>Increased administrative efficiency</td>
<td>Morocco; Rwanda; Sweden</td>
<td>Sweden introduced a new administrative process for automatic registration of mortgages and renewal of ownership.</td>
</tr>
<tr>
<td>Setting up effective time limits</td>
<td>Serbia</td>
<td>Serbia introduced effective time limits for the registration of property rights at the real estate cadaster.</td>
</tr>
<tr>
<td>Increased geographic coverage</td>
<td>Georgia</td>
<td>Georgia reached full coverage of all maps for privately held land plots in the main business city.</td>
</tr>
<tr>
<td><strong>Strengthening legal rights of borrowers and lenders</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Created a unified and/or modern collateral registry for movable property</td>
<td>Armenia; The Gambia; Indonesia; FYR Macedonia; Malawi; Nigeria; Papua New Guinea</td>
<td>Armenia strengthened access to credit by adopting a new law on secured transactions that establishes a modern and centralized collateral registry.</td>
</tr>
<tr>
<td>Introduced a functional and secured transactions system</td>
<td>The Gambia; FYR Macedonia; Malawi; Papua New Guinea</td>
<td>The Gambia strengthened access to credit by adopting the Security Interests in Moveable Property Act. The new law on secured transactions implements a functional secured transactions system. The law regulates functional equivalents to loans secured with movable property, such as financial leases and sales with retention of title.</td>
</tr>
<tr>
<td>Allowed for general description of assets that can be used as collateral</td>
<td>FYR Macedonia</td>
<td>The former Yugoslav Republic of Macedonia implemented new laws which allow for the general description of assets granted as collateral.</td>
</tr>
<tr>
<td>Expanded range of movable assets that can be used as collateral</td>
<td>Papua New Guinea</td>
<td>Papua New Guinea introduced a new law that broadens the scope of assets which can be used as collateral to secure a loan.</td>
</tr>
<tr>
<td>Granted absolute priority to secured creditors or allowed out-of-court enforcement</td>
<td>The Gambia; Papua New Guinea; Vanuatu</td>
<td>The Gambia introduced a new law that allows out-of-court enforcement.</td>
</tr>
<tr>
<td>Granted exemptions to secured creditors from automatic stay in insolvency proceedings</td>
<td>Brunei Darussalam</td>
<td>Brunei Darussalam adopted a new insolvency law that contemplates protections for secured creditors during an automatic stay in reorganization proceedings.</td>
</tr>
<tr>
<td><strong>Improving the sharing of credit information</strong></td>
<td></td>
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</tr>
<tr>
<td>Expanded scope of information collected and reported by credit bureau or registry</td>
<td>Brunei Darussalam; China; Tanzania; Tunisia</td>
<td>In Brunei Darussalam the credit registry began distributing data from two utility companies in its credit reports with information on their clients’ payment histories.</td>
</tr>
<tr>
<td>Improved regulatory framework for credit reporting</td>
<td>Armenia; Burkina Faso; Mozambique; Myanmar; Togo; Zimbabwe</td>
<td>Zimbabwe strengthened its credit reporting system by amending an act to allow for the establishment of a credit registry.</td>
</tr>
<tr>
<td>Established a new credit bureau or registry</td>
<td>Côte d’Ivoire; Latvia; Mali; Malta; Niger; Senegal; Solomon Islands</td>
<td>Côte d’Ivoire, Mali, Niger and Senegal established a new credit bureau, Creditinfo VoLo, which banks can consult to assess the creditworthiness of consumer and commercial borrowers.</td>
</tr>
<tr>
<td>Guaranteed by law borrowers’ right to inspect data</td>
<td>Bahrain; Pakistan</td>
<td>Bahrain introduced amendments to the Central Bank of Bahrain and Financial Institutions Law guaranteeing borrowers’ right to inspect their own data.</td>
</tr>
<tr>
<td>Introduced bureau or registry credit scores as a value added service</td>
<td>Belarus; Cambodia; China; Malaysia; Morocco; Thailand</td>
<td>In Cambodia the credit bureau began offering credit scoring in June 2015 to facilitate the assessment of the repayment capacity of borrowers.</td>
</tr>
<tr>
<td>Introduced online access to the credit information</td>
<td>Mauritania</td>
<td>Mauritania provided banks and financial institutions online access to the data of the credit registry.</td>
</tr>
<tr>
<td>Expanded borrower coverage by credit bureau or registry</td>
<td>Guyana; Lesotho; Pakistan; Tanzania</td>
<td>Guyana expanded the number of borrowers listed by its credit bureau with information on their borrowing history from the past five years to more than 5% of the adult population.</td>
</tr>
</tbody>
</table>
### TABLE 3.3 Who reduced regulatory complexity and cost or strengthened legal institutions in 2015/16—and what did they do?

<table>
<thead>
<tr>
<th>Feature</th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Strengthening minority investor protections</strong></td>
<td>🇮🇹 Croatia; 🇰🇪 Kenya; 🇹🇳 Mauritania; 🇱🇰 Sri Lanka; 🇺🇦 Ukraine</td>
<td>🇨🇿 Croatia amended its companies act to require that directors disclose in detail all relevant facts about the nature, relationship and existence of their conflicts of interest in a proposed transaction.</td>
</tr>
<tr>
<td>Enhanced access to information in shareholder actions</td>
<td>🇲🇰 FYR Macedonia; 🇳🇪 Niger</td>
<td>🇳🇪 Niger amended its civil procedure code and addressed the allocation of legal expenses at the conclusion of a civil action.</td>
</tr>
<tr>
<td>Expanded shareholders’ role in company management</td>
<td>🇧🇾 Belarus; 🇪🇬 Arab Republic of Egypt; 🇫🇯 Fiji; 🇰🇿 Georgia; 🇵🇰 Kazakhstan; 🇲🇰 FYR Macedonia; 🇲נחה Morocco; 🇸🇦 Saudi Arabia; 🇺🇦 Ukraine; 🇺🇿 United Arab Emirates; 🇺🇿 Uzbekistan; 🇫.StringVar; 🇻🇳 Vanuatu; 🇻🇳 Vietnam</td>
<td>🇫志强Vanuatu’s new companies act stipulates that the sale of 50% of the assets of a company must be approved by the shareholders and that changes to their rights must be approved by the affected shareholders.</td>
</tr>
<tr>
<td>Increased director liability</td>
<td>🇧🇾 Belarus; 🇧🇳 Brunei Darussalam; 🇸🇪 Kenya; 🇹🇳 Mauritania; 🇺🇦 Ukraine; 🇻🇳 Vietnam</td>
<td>🇻🇳 Vietnam adopted a law that mandates that liable directors repay profits derived from a transaction in which they had a conflict of interest.</td>
</tr>
<tr>
<td><strong>Making it easier to pay taxes</strong></td>
<td>🇦🇱 Albania; 🇬🇷 Argentina; 🇪🇬 Brunei Darussalam; 🇪콰 Cyprus; 🇬🇹 El Salvador; 🇮🇩 Georgia; 🇮🇩 Indonesia; 🇮🇹 Italy; 🇪🇭 Jamaica; 🇯🇵 Japan; 🇷🇺 Kosovo; 🇹🇪 Latvia; 🇲🇾 Malaysia; 🇻🇩 Moldova; 🇲🇳 Mongolia; 🇵🇳 Montenegro; 🇳🇱 Netherlands; 🇵🇭 Philippines; 🇮🇵 Portugal; 🇸🇬 Singapore; 🇮🇳 Spain; 🇹🇯 Tajikistan; 🇷🇺 Turkey; 🇺🇬 Uganda; 🇺🇾 Uruguay</td>
<td>🇦🇱 Albania launched an upgraded online platform for filing corporate income tax, value added tax and labor contributions as of January 1, 2015. One consolidated online return for mandatory contributions and payroll taxes was integrated within the online system. The Philippines introduced online filing and payment of health contributions as of April 1, 2015.</td>
</tr>
<tr>
<td>Reduced profit tax rate</td>
<td>🇳跗Dominica; 🇬🇧 Dominican Republic; 🇬🇹 Guatemala; 🇵🇷 Peru; 🇵🇹 Portugal; 🇸🇦 San Marino; 🇳🇪 Senegal; 🇹🇯 Tajikistan; 🇺🇿 Uzbekistan</td>
<td>🇺🇿 Uzbekistan reduced the corporate income tax rate from 23% to 21% as of January 1, 2015. Senegal reduced the maximum corporate income tax collectable. San Marino allowed companies incorporated after January 1, 2014, to benefit from a 50% corporate income tax reduction for the first six years of activity.</td>
</tr>
<tr>
<td>Reduced labor taxes and mandatory contributions</td>
<td>🇯🇵 Japan (Osaka); 🇳🇱 Netherlands; 🇳🇿 New Zealand; 🇺🇿 Uzbekistan</td>
<td>🇳🇱 The Netherlands reduced the rates for health insurance contribution, special unemployment contribution and unemployment insurance contribution as of January 1, 2015.</td>
</tr>
<tr>
<td>Reduced taxes other than profit tax and labor taxes</td>
<td>🇦 דיגיטAlgeria; 🇮🇹 Angola; 🇪🇬 Cyprus; 🇮🇹 Italy; 🇷🇺 Montenegro; 🇳🇱 Netherlands; 🇸🇬 Singapore; 🇸🇮 Slovak Republic; 🇹🇯 Spain; 🇭🇷 Tajikistan</td>
<td>🇷🇺 Algeria reduced tax on professional activity from 2% to 1% of turnover as of July 1, 2015. Cyprus increased the discount rate for immovable property tax from 15% to 20% in 2015.</td>
</tr>
<tr>
<td>Merged or eliminated taxes other than profit tax</td>
<td>🇦🇿 Azerbaijan; 🇧🇦 Bosnia and Herzegovina; 🇪🇭 Jamaica; 🇯🇵 Japan; 🇳🇿 New Zealand; 🇵🇷 Puerto Rico (U.S.); 🇸🇬 Singapore; 🇮🇳 Spain; 🇻🇳 Vietnam</td>
<td>🇧🇦 Bosnia and Herzegovina abolished the tourist fee at the end of January 2015. Puerto Rico (U.S.) abolished the national gross receipt tax in 2015.</td>
</tr>
<tr>
<td>Allowed for more deductible expenses or depreciation</td>
<td>🇦🇴 Angola; 🇮🇹 Hungary; 🇴 бюItaly; 🇪🇭 Jamaica; 🇯🇴 Jordan; 🇮🇷 Kosovo; 🇪🇸 Spain</td>
<td>🇮🇷 Angola increased the tax deduction for bad debt provisions from 2% to 4%. Italy increased the rate of the notional interest deduction from 4% to 4.5% in 2015.</td>
</tr>
<tr>
<td>Simplified tax compliance processes or decreased number of tax filings or payments</td>
<td>🇦գᾄAlgeria; 🇮🇹 Angola; 🇲｀Burundi; 🇮🇹 Georgia; 🇵𐌹ｌMaritania; 🇵🇹 Portugal; 🇳🇪 Senegal; 🇸🇮 Slovak Republic; 🇮🇳 Togo; 🇻🇳 Vietnam</td>
<td>🇳｀Burundi introduced a new unique tax return and eliminated the personalized value added tax declaration form. Mauritania reduced the frequency of filing and payment of value added tax returns.</td>
</tr>
<tr>
<td><strong>Making it easier to trade across borders</strong></td>
<td>🇦🇫 Afghanistan; 🇦🇿 Azerbaijan; 🇧🇷 Georgia; 🇬🇭 Haiti; 🇮🇩 India; 🇸🇮 Indonesia; 🇮🇷 Islamic Republic of Iran; 🇪🇭 Jamaica; 🇳🇴 Jordan; 🇫🇷 Kosovo; 🇫🇷 Kuwait; 🇸🇩 Madagascar; 🇹🇳 Mauritania; 🇳🇵 Nepal; 🇪🇷 Oman; 🇲🇵 Pakistan; 🇺🇬 Paraguay; 🇳🇱 St. Lucia; 🇮🇳 Togo; 🇺🇬 Uganda; 🇺🇾 Vietnam</td>
<td>🇸🇩 Angola increased the tax deduction for bad debt provisions from 2% to 4%. Italy increased the rate of the notional interest deduction from 4% to 4.5% in 2015.</td>
</tr>
<tr>
<td>Introduced or improved electronic submission and processing of documents for exports</td>
<td>🇦🇫 Afghanistan; 🇦🇿 Azerbaijan; 🇧🇷 Georgia; 🇬🇭 Haiti; 🇮🇩 India; 🇸🇮 Indonesia; 🇮🇷 Islamic Republic of Iran; 🇪🇭 Jamaica; 🇳🇴 Jordan; 🇫🇷 Kosovo; 🇫🇷 Kuwait; 🇸🇩 Madagascar; 🇹🇳 Mauritania; 🇳🇵 Nepal; 🇪🇷 Oman; 🇲🇵 Pakistan; 🇺🇬 Paraguay; 🇳🇱 St. Lucia; 🇮🇳 Togo; 🇺🇬 Uganda; 🇺🇾 Vietnam</td>
<td>🇰🇷 Georgia reduced export document processing time from 48 hours to 2 hours by improving its document processing system. Jamaica and Nepal reduced export documentary compliance time. Kosovo introduced electronic payments electronic submission of export declarations and reduced export documentary compliance time. Oman and Paraguay introduced a new online single window that decreased export border compliance time.</td>
</tr>
<tr>
<td>Introduced or improved electronic submission and processing of documents for imports</td>
<td>🇦🇫 Afghanistan; 🇦🇿 Azerbaijan; 🇧🇷 Georgia; 🇬🇭 Ghana; 🇳｀Grenada; 🇪🇭 Haiti; 🇮דלIndia; 🇸(()=&gt;Islamic Republic of Iran; 🇪🇭 Jordan; 🇳🇴 Kosovo; 🇫🇷 Kuwait; 🇸てくるMadagascar; 🇹🇳 Mauritania; 🇳🇵 Morocco; 🇳｀Niger; 🇪=`Oman; 🇲鄄Pakistan; 🇱鄄Rwanda; 🇳鄄St. Lucia; 🇮鄄Togo; 🇺鄄Vietnam</td>
<td>🇨鄄Argentina introduced a new Import Monitoring System, which reduced the time for import documentary compliance from 336 hours to 192 hours. Ghana, Niger and Rwanda removed the pre-arrival assessment inspection for imports which reduced import documentary compliance time.</td>
</tr>
<tr>
<td>Entered a customs union or signed a trade agreement with major trade partner for exports and imports</td>
<td>🇮鄄Kosovo; 🇦鄄Kyrgyz Republic</td>
<td>🇨鄄The Kyrgyz Republic reduced the time for exporting by 10 hours and the cost of exporting by $85 by becoming a member of the Eurasian Economic Union. Albania and Kosovo launched an Albania-Kosovo Transit Corridor that decreased the export compliance time by 15 hours.</td>
</tr>
<tr>
<td>Strengthened transport or port infrastructure for exports</td>
<td>🇦鄄Jordan</td>
<td>🇨鄄Infrastructure improvements in Jordan decreased border compliance time by 2.1 hours for exports.</td>
</tr>
<tr>
<td>Strengthened transport or port infrastructure for imports</td>
<td>🇧鄄Bahrain; 🇪鄄Haiti; 🇪鄄Jordan</td>
<td>🇨鄄Bahrain, Jordan and Haiti improved infrastructure and streamlined procedures which decreased export border compliance.</td>
</tr>
<tr>
<td>Reduced documentary burden for exports and imports</td>
<td>🇦鄄Antigua and Barbuda; 🇰鄄Kazakhstan</td>
<td>🇨鄄Antigua and Barbuda removed the tax compliance certificate for import customs clearance, which decreased the time and costs for import documentation. Kazakhstan removed two documents required for customs clearance, which reduced the export documentary compliance time.</td>
</tr>
</tbody>
</table>
### TABLE 3.3 Who reduced regulatory complexity and cost or strengthened legal institutions in 2015/16—and what did they do?

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<thead>
<tr>
<th>Feature</th>
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<tbody>
<tr>
<td><strong>Making it easier to enforce contracts</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expanded the alternative dispute resolution framework</td>
<td>Armenia; Brazil; Moldova</td>
<td>Armenia, Brazil and Moldova introduced laws regulating voluntary mediation and setting incentives for the parties to attempt mediation.</td>
</tr>
<tr>
<td>Introduced a small claims court or a dedicated procedure for small claims</td>
<td>Côte d’Ivoire; Indonesia</td>
<td>Côte d’Ivoire and Indonesia each introduced a fast-track procedure to be used for the resolution of small claims. Both allow litigants to represent themselves during this procedure.</td>
</tr>
<tr>
<td>Introduced or expanded specialized commercial court</td>
<td>India; Niger</td>
<td>India and Niger each introduced dedicated venues to resolve commercial disputes.</td>
</tr>
<tr>
<td>Introduced significant changes to the applicable civil procedure rules</td>
<td>Bolivia; Brazil; Ecuador; Greece; Kazakhstan; Niger; Syrian Arab Republic</td>
<td>Bolivia and Ecuador each introduced a new Code of Civil Procedure regulating pre-trial conference. Kazakhstan and Niger each added measures of case management to their new rules on civil procedure.</td>
</tr>
<tr>
<td>Introduced electronic filing</td>
<td>Brunei Darussalam; Hungary; Norway; Spain</td>
<td>Brunei Darussalam, Hungary, Norway and Spain introduced an electronic filing system for commercial cases, allowing attorneys to submit the initial summons online.</td>
</tr>
<tr>
<td>Expanded court automation</td>
<td>Brunei Darussalam; Rwanda; Ukraine</td>
<td>Brunei Darussalam and Ukraine introduced a system allowing court users to pay court fees electronically. Rwanda introduced an electronic case management system for the use of judges and lawyers.</td>
</tr>
<tr>
<td><strong>Making it easier to resolve insolvency</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Introduced a new restructuring procedure</td>
<td>Benin; Brunei Darussalam; Burkina Faso; Cameroon; Central African Republic; Chad; Comoros; Democratic Republic of Congo; Republic of Congo; Côte d’Ivoire; Equatorial Guinea; Gabon; Guinea; Guinea-Bissau; Kenya; Mali; Niger; Poland; Senegal; Togo</td>
<td>Poland introduced new restructuring mechanisms and established a centralized restructuring and bankruptcy register.</td>
</tr>
<tr>
<td>Improved the likelihood of successful reorganization</td>
<td>Brunei Darussalam; Kenya; Thailand</td>
<td>Brunei Darussalam made changes to its insolvency framework, including provisions authorizing post-commencement credit during insolvency proceedings and establishing rules for priority repayment of post-commencement creditors.</td>
</tr>
<tr>
<td>Improved provisions on treatment of contracts during insolvency</td>
<td>Brunei Darussalam; Kenya; Vanuatu</td>
<td>Vanuatu allowed avoidance of undervalued transactions concluded prior to commencement of insolvency proceedings.</td>
</tr>
<tr>
<td>Regulated the profession of insolvency administrators</td>
<td>Brunei Darussalam; Kenya</td>
<td>Kenya updated its insolvency framework, including stricter requirements for qualifications of insolvency administrators.</td>
</tr>
<tr>
<td>Strengthened creditors’ rights</td>
<td>Kazakhstan; FYR Macedonia</td>
<td>Kazakhstan provided additional protections to creditors in the process of voting on the reorganization plan.</td>
</tr>
<tr>
<td><strong>Changing labor legislation</strong></td>
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<tr>
<td>Altered hiring rules</td>
<td>Angola; Kazakhstan; Mexico; Myanmar; Netherlands; Norway; Poland; Portugal; São Tomé and Principe; United Arab Emirates; Zambia; Zimbabwe</td>
<td>Norway amended the legislation to allow the use of fixed-term contracts for permanent tasks. Myanmar introduced a national minimum wage and São Tomé and Principe introduced a minimum wage for the private sector.</td>
</tr>
<tr>
<td>Amended regulation of working hours</td>
<td>Angola; Cyprus; France; Hungary; Kazakhstan; Liberia</td>
<td>Cyprus and Hungary changed the legislation to allow stores to be open on Sundays. Kazakhstan reduced the premium for work on weekly holidays.</td>
</tr>
<tr>
<td>Changed redundancy rules and cost</td>
<td>Angola; Comoros; Kazakhstan; Myanmar; Netherlands; Saudi Arabia; Zimbabwe</td>
<td>Kazakhstan eliminated the requirement to reassign an employee to a different position before making the employee redundant. The Netherlands introduced severance pay for redundancy dismissals for employees with at least two years of continuous employment. Zimbabwe significantly reduced the severance package for redundancy dismissals.</td>
</tr>
<tr>
<td>Reformed legislation regulating worker protection and social benefits</td>
<td>Brazil; Cabo Verde; Democratic Republic of Congo; Liberia</td>
<td>The Democratic Republic of Congo enacted a law that prohibits gender discrimination in hiring. Liberia established equal remuneration for work of equal value. Cabo Verde introduced an unemployment insurance scheme.</td>
</tr>
</tbody>
</table>

*Source: Doing Business database.*

*Note: Reforms affecting the labor market regulation indicators are included here but do not affect the ranking on the ease of doing business.*
The getting electricity indicators measure the reliability of electricity supply using data on the duration and frequency of power outages, among other metrics.

A broad range of variables impact the reliability of electricity supply. These include the electricity generation adequacy, the condition of power system infrastructure, utility financial and operational performance and energy sector regulation.

Evidence from four lower-middle-income economies with varying levels of reliability suggests that continuous investment in infrastructure is essential to ensure a reliable electricity supply.

Indonesia implemented structural changes to its energy sector, increased investment in infrastructure and introduced regulatory initiatives to improve overall power reliability.

Guatemala liberalized its energy sector and adopted different tariff strategies while maintaining incentives to enable cost recovery. These measures, coupled with the presence of an overarching regulatory body, fostered a high level of power reliability in Guatemala City.

In the cases of Cameroon and Pakistan, inadequate end-user tariff levels and high transmission and distribution losses had an impact on the overall financial standing of utilities—and, in turn, on the reliability of supply.

The experience of these economies suggests that utilities must ensure a healthy financial position so they can invest the necessary resources to increase the reliability of electricity supply.

Since 2011 Doing Business, through its getting electricity indicator set, has recorded the time, cost and number of procedures required for a small to medium-size business to legally connect a commercial warehouse to the electrical grid. Starting in 2015, the reliability of supply and the price of electricity have also been measured. Reliability is measured through quantitative data on the duration and frequency of power outages as well as through qualitative information, which includes—among other things—the mechanisms put in place by the utility for monitoring power outages. These measures are important because a reliable electricity supply is critical for enterprises to operate and grow. According to 2016 World Bank Enterprise Survey data, business owners in around 30% of developing economies perceive unreliable electricity services as a major obstacle to their activities. In Sub-Saharan Africa, where economies suffered an average of 690 hours of outages in 2015, the annual economic growth drag of a weak power infrastructure is estimated to be about two percentage points. In addition to negatively affecting business operations, an unreliable supply can compromise an economy’s overall well-being. For example, Beirut residents cope with an average of three hours with no electricity every day. Residents in other areas of the country must endure 12 hours of daily power outages. The average Lebanese household must then resort to generator usage, spending $1,300 on electricity each year—equivalent to almost 15% of income per capita.

Minimizing the number and the duration of power outages is critical for societies at large. Although electricity is ultimately provided by a distribution utility (the “last step” in the supply chain), it is not the only entity responsible for providing a stable supply, as many other actors play an important role throughout the process of generation, transmission and distribution of electricity. This case study focuses on lower-middle-income economies with varying levels of electricity supply reliability. By comparing different aspects of their energy sectors, this chapter highlights some key elements and actors that can drive, or prevent, a reliable electricity supply.

A power system consists of three main components: generation power plants, which use resources like hydropower, coal or renewables to produce electricity; the transmission network, consisting of a high voltage network (usually above 35 kilo-volts) used to transmit electricity from the generation station to the distribution network; and the distribution network, a low-to-medium-voltage network that is used to deliver electricity to customers (figure 4.1).

The reliability of electricity supply is determined by multiple interdependent factors. This case study focuses on four main areas which directly impact the power sector: electricity generation adequacy, power system infrastructure,
Electricity generation is the basis of any power system, and generation adequacy is determined by the availability of resources as well as by their cost. If an economy has sufficient domestic energy resources and the necessary technological conditions, generation may be assured at a lower cost compared to economies that rely on imported fossil fuels. Additionally, energy self-reliance may ensure a higher reliability of supply as it reduces an economy’s vulnerability to supply shortages in the global commodity markets.

The upkeep and the technical condition of a power system’s infrastructure directly affect its operation and, therefore, the duration and frequency of power cuts. Poor upkeep is further exacerbated when an economy faces exogenous shocks or inclement weather. In Zambia, for example, poorly maintained distribution lines coupled with insufficient rainfall due to the El Niño weather phenomenon resulted in electricity shortages in 2015—with Lusaka experiencing 137 hours of outages per customer. Such power cuts undermine the economy; each minute of outage costs $9,000 to the Zambian mining sector.5

The financial performance of a utility depends on its ability to generate sufficient revenue to cover the costs of providing electricity and to ensure the profitability of its operations. End-user tariffs are a central aspect of the sector’s financial performance because the revenues of all market players in an energy system—including the generation, transmission and distribution companies—come from electricity bills. In principle, tariffs take into account the costs involved in the operation of the power system. However, when tariffs do not allow for full cost recovery, insufficient revenues accrued by distribution utilities can create financial constraints across the power system. This may force cutbacks on maintenance spending and capital investments, resulting in increased production costs and a deterioration of power system reliability. In addition to tariff pricing, a utility’s operational performance is crucial for the electricity sector as without proper attention to market factors, its ability to ensure electricity provision can be compromised. Ownership structure in the power sector varies greatly across economies, including purely public, private, or mixed partnership. Regardless of a utility’s ownership type, having an efficient management structure is essential.

Finally, it is the role of the energy regulator to set the “rules of the game” for all players. Since the electricity market is often monopolistic, only an independent regulator is in a position to supervise the price of electricity and ensure consumer protection. In terms of electricity reliability, the regulator may set objectives regarding utilities’ performance as well as deterrents to reduce the duration and frequency of outages. An example of a financial deterrent can be setting a threshold for the number and/or duration of power outages. In that case, when outages surpass a certain threshold, the regulator can impose penalties or allow for customers to
receive compensation. *Doing Business* data reveal that low- and lower-middle-income economies using such financial deterrents had 53 power cuts on average in 2015, while economies in the same income group without financial deterrents to limit outages had three times more outages.

**RELIABILITY ACROSS FOUR ECONOMIES**

To assess the power reliability in different economies across the dimensions highlighted, this study looks at four lower-middle-income economies. Guatemala and Indonesia are examples of economies that provide a reliable electricity supply in the main business cities, having registered low levels of outages in 2015, according to *Doing Business* data (table 4.1.). Cameroon and Pakistan, however, have outages on a regular basis and are examples of economies providing an unreliable supply for customers (table 4.2.). For the other aspects analyzed, the majority of the data are from 2014. In some cases, newer data were available but the same base year was chosen for cross-comparability purposes.

**Reliable electricity supply**

**Indonesia**

From an energy perspective, Indonesia faces considerable challenges: it has the fourth largest population globally, a complex geography and falling oil reserves. Nevertheless, Indonesia has achieved a high level of electrification with 96% of the total population having access to electricity in 2012, up from 67% in 1990. Furthermore, the frequency and duration of power outages in Jakarta and Surabaya today are low compared to other economies in East Asia and the Pacific. System average interruption duration index (SAIFI) data suggest that a business in Jakarta only suffered two outages in 2015, almost nine times less than the regional average. As electricity outages and tariff levels are relatively low in Java, where over half of Indonesians live, it is then not surprising to observe that the World Bank Enterprise Surveys report that less than 1% of firms in Indonesia see electricity as their “biggest obstacle”—compared to almost 10% of firms worldwide. This reflects a well-performing power sector in Indonesia’s largest municipalities, yet major investments had to be made to overcome several challenges.

In the 1990s, power outages were a common occurrence in Jakarta. Rising electricity demand coupled with the 1997 Asian financial crisis placed a heavy strain on the system. Generation activities—as well as transmission and distribution—were conducted exclusively by Perusahaan Listrik Negara (PLN), the state-owned, vertically-integrated utility. However, the 1999 electricity law opened up the electricity generation market to the private sector. With the entrance of new actors, installed generation capacity was able to expand substantially. At the end of 2014, independent power producers accounted for approximately 30% of Indonesia’s installed generation capacity.9

In parallel to the partial liberalization of the sector, the government of Indonesia also devised ambitious infrastructure investment plans to meet rising electricity demand. Between 2004 and 2014, generation capacity doubled from 26.4 gigawatts to 53.0 gigawatts11 through a mix of private and public investments. These investments allowed the country to diversify electricity production and reduce reliance on oil, of which Indonesia is a net importer, increasing the share of natural gas (21%), hydropower (7%) and geothermal power (5%) in its generation mix.12

While Indonesia’s success vis-à-vis power reliability is largely attributed to infrastructure development, regulatory deterrents to prevent utility underperformance may also have contributed to minimizing power cuts. Per government regulation, customers experiencing outages beyond certain levels are eligible for compensation from PLN. And *Doing Business* data now suggest that PLN in Jakarta is a good performer if the time needed to get a new permanent electricity connection is used as a proxy to gauge utility efficiency. It took 59 days to get a new electrical connection in Jakarta in 2016 compared to 101 days in 2009. This improvement is the result of better customer engagement and the streamlining of administrative processes as highlighted by several reforms recorded by *Doing Business*.

A stable electricity supply in Indonesia has been achieved over the past decades mostly by supply-side initiatives. On the demand side, the country has not sought to limit consumption through tariffs. In fact, the pricing policy pursued by the government aims to balance the financial standing of the utility with the affordability of electricity tariffs. Tariffs are, therefore, set below market levels, but PLN is compensated through subsidies that allow for a profit margin of 7%. Tariffs are also routinely reviewed by the regulator. End-user tariffs were raised by 15% in 2013, for example, to help improve PLN’s financial performance in the wake of rising energy prices.

Even though access to reliable electricity has improved in Java, Indonesia still faces considerable challenges going forward. According to the Indonesian Ministry of Energy and Mineral Resources, over 12,000 villages in the country are still without electricity and approximately 65% of them are in six provinces in eastern Indonesia. In the coming years, it will be crucial for the country to pursue its *Indonesia Terang* (Bright Indonesia) plan by building island-based generation capacity infrastructure and expanding access to electricity across the archipelago.

**Guatemala**

Substantial improvements to the reliability of electricity supply have been achieved in Guatemala, particularly in the capital. Although some regions still struggle to provide a reliable electricity supply, residents of Guatemala City had, on average, less than three outages in
2015 compared to an average 13 power cuts in the other main business cities of Latin America and the Caribbean. This is quite a feat considering concerns two decades ago about potential shortfalls in generation capacity due to rising demand—which increased by 7% annually on average between 1986 and 2012. As in Indonesia, Guatemala’s first push to boost capacity involved opening the energy sector to private participation.

Unlike its Southeast Asian counterpart, however, Guatemala unbundled the entire energy sector in 1996 through a general electricity law. Competition was introduced, with private and public players entering the generation, transmission, electricity trading and distribution segments. As a result, the Instituto Nacional de Electrificación (INDE), which previously controlled all assets from generation to distribution, now operates 15% of Guatemala’s installed generation capacity. The remaining 85% is operated by a variety of private companies. The private sector is also present in the electricity transmission sector and in the distribution sector, where the privately-owned Energuate controls 60% of the market share.

Within two decades of its adoption, the electricity law spurred a series of investments which have more than tripled Guatemala’s installed capacity from 1.0 gigawatts to 3.7 gigawatts. This increase in capacity was accompanied by a diversification of the energy mix, notably through tariff and tax incentives, thereby encouraging the use of renewable resources. In 1996, 31% of Guatemalan electricity was generated from oil, and biofuel accounted for 13%. Twenty years later, biofuel’s share has grown to 38% and the share of oil-based generation has fallen to 12%. Furthermore, the Central American regional electricity market has provided some flexibility to Guatemala, allowing it to export its excess supply of electricity (or to import it when needed).

Following the liberalization program, the government recognized the need to create a regulatory framework to oversee the new competitive market. The national electricity commission, an independent regulatory body, was established in 1996. The commission sets the market rules, monitors power outages and imposes financial penalties on utilities when excessive service interruptions occur. End-user tariffs are also regulated by the commission and are classified into two categories: a “regular rate”—which is determined based on the blended costs of supply from generation companies, as well as transmission and distribution costs—and a subsidized “social rate” for consumers with monthly demand of up to 300 kilowatt-hours. Utilities can thus recuperate their capital investments while, at the same time, consumers are protected from price gouging.

Doing Business data also suggest that the improved reliability in Guatemala City may be partly attributed to effective utility management. Doing Business ranks Guatemala among the highest in Latin America and the Caribbean for utility performance; it takes just 39 days to get a new connection to the electrical grid in Guatemala compared to the regional average of 66 days.

### Unreliable electricity supply

**Cameroon**

Cameroon was one of the first Sub-Saharan African economies to liberalize its energy sector. The adoption of the 1998 Electricity Sector Law led to the privatization of the vertically-integrated and state-owned utility, the Société Nationale d’Electricité (SONEL). Nonetheless, the total installed generation capacity remained largely stagnant between 2000 (0.8 gigawatts) and 2012 (1.0 gigawatts) in view of Cameroon’s rising energy needs and population growth. As a result, Cameroon faces a severe electricity supply deficit—even though about half of the population is not connected to the grid. Douala residents experienced on average almost two hours of outages each week in 2015. This has likely impacted business

### Table 4.1 Reliability of supply and transparency of tariff index for Guatemala and Indonesia

<table>
<thead>
<tr>
<th>Reliability of supply and transparency of tariff index (0–8)</th>
<th>Guatemala</th>
<th>Indonesia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total duration and frequency of outages per customer a year (0–3)</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>System average interruption duration index (SAIDI) in 2015</td>
<td>3.7</td>
<td>2.6</td>
</tr>
<tr>
<td>System average interruption frequency index (SAIFI) in 2015</td>
<td>2.6</td>
<td>1.7</td>
</tr>
<tr>
<td>Mechanisms for monitoring outages (0–1)</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Does the distribution utility use automated tools to monitor outages?</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Mechanisms for restoring service (0–1)</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Does the distribution utility use automated tools to restore service?</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Regulatory monitoring (0–1)</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Does a regulator monitor the utility’s performance on reliability of supply?</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Financial deterrents aimed at limiting outages (0–1)</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Does the utility either pay compensation to customers or face fines by the regulator (or both) if outages exceed a certain cap?</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Communication of tariffs and tariff changes (0–1)</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Are effective tariffs available online?</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Are customers notified of tariff changes at least 1 month ahead of time?</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

*Source: Doing Business database.*

*Note: SAIDI is the average total duration of outages over the course of a year for each customer served, while SAIFI is the average number of service interruptions experienced by a customer in a year. For Indonesia, SAIDI/SAIFI data are for Jakarta only.*
behavior; approximately 35% of firms in Cameroon own a generator.28

Cameroon’s privatization program has not resulted in a sharp rise in installed capacity nor has it established a fully competitive market. Power generation is open to independent private sector participation, yet the sector remains largely dominated by one company, ENEO Cameroon (formerly SONEL). Because the power sector is not fully unbundled, the transmission and distribution sectors are also operated by ENEO Cameroon, which struggles with transmission losses. For example, 35% of the electricity generated from hydro-powered and gas plants is lost through electricity transmission.29 In this context, the government recently announced the establishment of a new state-owned entity, the Société Nationale de Transport de l’Electricité (Sonatel), which will take over the transmission sector with the goal of upgrading the power infrastructure.

Cameroon relies entirely on domestically-sourced resources, with hydropower accounting for 71% of generated electricity, and oil and gas making up the balance.30 While it could export electricity to neighboring economies thanks to an abundance of natural resources, that potential is under-exploited.31 Cameroon’s heavy reliance on hydroelectricity has also meant that droughts often result in prolonged outages. This was the case in 2015 as power outages brought activities at the Douala port to a standstill for several days.32 To prevent such scenarios in the future, Cameroon is aiming to diversify its energy mix and infrastructure than from utility management. Obtaining a new electricity connection, for example, takes on average 64 days in Cameroon, about half the average time in the Sub-Saharan Africa region.

Pakistan

Pakistan is in the midst of an energy crisis. The rapid expansion of the economy in recent decades has led to increased energy demand. In 2011, electricity shortages exceeded 7.0 gigawatts, equal to about one-third of peak demand.34 And while Pakistan was able to increase its level of electrification from 60% in 1990 to 94% in 2012,35 the frequency and duration of outages remain high in its two largest cities. Doing Business data show that Karachi and Lahore were among the cities that experienced the most outages globally in 2015. Indeed, World Bank Enterprise Survey data report that for 45% of enterprises in Pakistan, a lack of reliable electricity supply is the largest obstacle to the operation of their business.

After three decades of energy sector expansion, privatization in Pakistan began in 1994 with the unbundling of the Water and Power Development Authority and the opening of power generation to independent producers. Subsequent reforms, such as the provision of incentives for private investments, were pursued in the late 1990s leading to an inflow of private capital and an increase in generation capacity.36 However, declining investment following the 1997 Asian financial crisis coupled with surging local demand resulted in a severe electricity deficit. Between

| TABLE 4.2 Reliability of supply and transparency of tariff index for Cameroon and Pakistan |
|-----------------------------------------------|--------|--------|
| **Reliability of supply and transparency of tariff index (0–8)** | Cameroon | Pakistan |
| Total duration and frequency of outages per customer a year (0–3) | 0 | 0 |
| System average interruption duration index (SAIDI) in 2015 | 89 | 861.7 |
| System average interruption frequency index (SAIFI) in 2015 | 23.3 | 387.2 |
| Mechanisms for monitoring outages (0–1) | 0 | 1 |
| Does the distribution utility use automated tools to monitor outages? | No | Yes |
| Mechanisms for restoring service (0–1) | 0 | 1 |
| Does the distribution utility use automated tools to restore service? | No | Yes |
| Regulatory monitoring (0–1) | 1 | 1 |
| Does a regulator monitor the utility’s performance on reliability of supply? | Yes | Yes |
| Financial deterrents aimed at limiting outages (0–1) | 1 | 1 |
| Does the utility either pay compensation to customers or face fines by the regulator (or both) if outages exceed a certain cap? | Yes | Yes |
| Communication of tariffs and tariff changes (0–1) | 1 | 0 |
| Are effective tariffs available online? | Yes | Yes |
| Are customers notified of tariff changes at least 1 month ahead of time? | Yes | No |

Source: Doing Business database.

Note: Under the getting electricity methodology if SAIDI/SAIFI is 100 or more then the economy is not eligible to score on the reliability of supply and transparency of tariff index. For Pakistan, SAIDI/SAIFI data are for Karachi only.
2004 and 2008, commercial electricity consumption increased by approximately 8% per year. In addition, the electricity sector’s share of total public investment fell from 51% in the mid-1990s to 26% by 2010.37 As a result, generation capacity was not able to keep up with demand.

Pakistan’s generation sector is comprised of different players with private power producers providing about 30% of the total generation capacity. On the distribution end, the sector is operated by 10 state-owned regional utilities and a private company, K-Electric, which serves Karachi. Almost all of the utilities, however, experience the same sets of challenges: shortfalls in electricity supply, chronic transmission and distribution losses38 and insufficient exploitation of existing capacity.

Pakistan’s electricity generation mix consists mainly of thermal power (69%) and hydropower (28%). Gas is sourced domestically but the economy is a net importer of oil, which makes the electricity sector reliant on imports and exposed to market fluctuations. Repeated hikes in global oil prices have at times strained the public—and utility—finances, but the oil share of electricity generation has grown since the 1990s.40 Considering this situation, Pakistan has undertaken a power sector reform agenda to address its generation shortfall by further developing its hydropower potential. In this context, hydropower investment projects supported by multilateral institutions such as the World Bank Group have recently been announced.41

The regulator, the National Electric Power Regulatory Authority (NEPRA), was established in 1998 as an autonomous body without any government administrative control. However, while NEPRA has jurisdiction on tariffs, all decisions need to be approved by the state, which has led successive governments to set tariff levels in a discretionary manner. Consequently, end-user prices have been set below the cost of supply with the difference being paid to the utility through extensive government subsidies42—which are sizeable both in relation to GDP and total general government expenditures.43 Delays in disbursing these subsidies have at times contributed to debts that have strained the finances of generation companies, undermining investments and the upkeep of the distribution network.

The unreliability of the electricity sector in Pakistan may also be attributed to the state of utility financial and operational performance. According to Doing Business data, it takes well over 100 days for a business to connect to electricity in Lahore and Karachi and a new connection costs about 1,770% of the national income per capita, a cost that is among the highest in South Asia.

**Drivers of Supply Reliability**

Evidence suggests that adequate investment in electricity generation is essential to ensure a reliable electricity supply. Without investment, generation capacity can quickly be overtaken by rising demand, as occurred in Cameroon and Pakistan. The experiences of Guatemala and Indonesia show that investment can be implemented through a strategy pursuing sectoral liberalization or with a vertically-integrated public utility continuing to play a major role in the energy sector, so long as there are incentives to ensure generation adequacy (figure 4.3).

The highlighted good performers underscore the importance of not only investing in productive capacity but also of maintaining the power system infrastructure. Aging infrastructure results in increased losses and a deterioration in the reliability of supply. It is also useful to diversify the energy mix to decrease the dependence on a given resource. A country that is over-reliant on hydropower, for example, might be particularly exposed to droughts, while a country that strongly relies on imported oil may be vulnerable to fluctuations in global crude prices.

Other factors impacting the reliability of supply are tariff levels, bill collection rates and transmission and distribution losses. In many economies, tariffs are calculated taking into account all costs associated with the generation, transmission and distribution of electricity, as well as profit margins and infrastructure maintenance costs. Subsidies, if needed, typically target certain groups of customers for

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**FIGURE 4.3** Generation capacity from 2000 to 2012

whom affordability is an issue, but utilities in general should not carry the financial burden of tariffs set below market levels. Bill collection rates are also relevant because under-collection results in revenue losses, which exacerbate the financial shortfalls that plague the sector. In turn, this poses challenges to the ability of utilities to pay their suppliers.

Pakistan’s power sector also grapples with financial challenges. In 2014 electricity tariffs were charged at 20.8 cents per kilowatt-hour, but the bill collection rate was below 80%. Because tariffs were set at below cost-recovery level, generation costs were not entirely recuperated through end-user tariffs. This resulted in chronic debt for the power system.

Transmission and distribution losses, which serve as a metric of operational efficiency for a utility, also affect the financial performance and the reliability of electricity supply. In Cameroon and Pakistan, transmission and distribution losses stand at approximately 30%, compared to 10% or less in Guatemala and Indonesia (figure 4.4). These losses can be divided into technical and commercial losses. Technical losses are due to the natural resistance of the electric cables to the flow of the electric current. They depend on the distance from generators to customers, on the voltage level and the quality of infrastructure, among other factors. Commercial losses are caused by non-payment due to theft, non-registered consumption or improper metering. In OECD high-income economies, commercial losses are minimal and stood at 6.5% in 2012. By contrast, the majority of losses in Cameroon and Pakistan are commercial, considering that—based on World Bank Group energy sector experience—technical losses usually do not exceed 12%. Such high numbers can compromise utilities’ financial standing.

Another key driver of supply reliability is a proper, overarching regulatory framework, as it can ensure adequate tariffs for each customer group and hold utilities accountable for the frequency and duration of power outages. All four economies analyzed have regulatory bodies in place and impose financial deterrents aimed at limiting outages. However, energy regulation cannot by itself ensure a high level of reliability of supply—the frequency and duration of power outages recorded in Guatemala and Indonesia are significantly lower than in Cameroon and Pakistan.

CONCLUSION

The reliability of electricity supply is critical for the development of the private sector—as well as for societies at large. There are multiple interdependent factors that directly affect reliability. Some are beyond the control of policy makers (such as inclement weather or commodity prices) yet many factors are, in fact, actionable if a long-term and comprehensive approach is adopted. Therefore, adequate generation capacity, financial performance, the operational efficiency of the utilities and the overarching regulatory framework need not be treated separately. All of these levers are integral to ensuring that electricity supply meets demand in a sustainable fashion.

With adequate planning and foresight, different strategies can be used to ensure a constant flow of electricity, as policy makers must cope with local market factors and other development objectives such as “greening” the energy mix and making electricity affordable for subsets of the population. The cases of Indonesia and Guatemala are interesting for this reason: growing demand was met through different investment strategies and varying degrees of sectoral liberalization. And while liberalization helped spur investment in these two economies, it has been less of a success in Pakistan and Cameroon where some factors—such as sustainable tariff pricing, sound financial management, high operational performance and balanced energy mix—were partly neglected in the past. As these cases suggest, having a multipronged approach is necessary to ensure the reliability of electricity supply.

NOTES

This case study was written by Jean Arlet, Diane Davoine, Tigran Parvanyan, Jayashree Srinivasan, and Erick Tjong.

1. Average excludes Sub-Saharan African economies for which SAIDI/SAIFI data was unavailable. These economies are: Angola, Benin, Botswana, Burundi, the Central African Republic, Chad, the Republic of Congo, Equatorial Guinea, Ethiopia, The Gambia, Ghana, Guinea-Bissau, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Rwanda, São Tomé and Príncipe, Senegal, Sierra Leone, Somalia, South Africa, South Sudan and Togo. Averages are for the primary
business city of each economy and exclude data from Kano, Nigeria.


4. Exogenous factors, such as natural cataclysms, are not considered in the case study.


6. Doing Business collects data on the average frequency and duration of power outages per customer in the main business city of each economy over the course of one year.


8. According to Doing Business data commercial tariffs stand at 11 cents per kilowatt-hour in Indonesia in 2016 compared to an average of 23 cents per kilowatt-hour globally.


15. The six regions are Maluku, North Maluku, East Nusa Tenggara (NTT), West Nusa Tenggara (NTB), Papua and West Papua.


20. According to IEA data, in 2013 the generation mix was: 15.8% coal, 17% oil, 18.1% biomass, 46.9% hydro and 2.1% geothermal.


22. Although electricity imports and exports have both increased since 2010, Guatemala remains a net energy exporter, Guatemala, Ministry of Energy and Mines 2013.

23. IDB 2013.


25. In 2001 SONEL was acquired by the US-based AES Corporation, thereby becoming AES SONEL, and granted a 20-year monopoly over generation, transmission and distribution. In 2014 AES SONEL was acquired by a British group, ACTIS, and renamed ENEO Cameroon.


27. Data on access to electricity are for 2012 and are from the World Development Indicators database (http://data.worldbank.org /indicator), World Bank.


31. According to the World Bank, Cameroon has the third largest hydropower potential in Sub-Saharan Africa with an estimated capacity of 12,000 megawatts.


34. Aziz and Ahmad 2015.


36. Installed capacity rose from 7,700 megawatts to 19,300 megawatts and production from 37.7 terawatt hours to 93.8 terawatt hours.

37. Aziz and Ahmad 2015.

38. These are estimated at 23% to 25% in 2016 according to data from the United States Institute of Peace.


40. Aziz and Ahmad 2015.


42. Mills 2012.

43. Kugelman 2013.

44. These data are from the Doing Business database and are for 2014.


46. USAID 2016.

Modern secured transactions regimes can be regulated either by a piecemeal approach, where various existing laws are amended, or by the passage of a new comprehensive law that encompasses all types of security interests.

An integrated approach to secured transactions enlarges the scope of assets that small and medium-size enterprises can use as collateral, thus expanding their access to finance. This approach allows the borrower to maintain possession of the collateralized asset for use in its business operations.

A modern collateral registry—centralized, notice-based and with online public access—is a key ingredient of a well-functioning modern economy. The registry should be unified for all types of movable assets, searchable and accessible online for verifications, registrations, amendments and renewals. By mid-2016, 26 economies had operational, notice-based and modern collateral registries, including Australia, Colombia, the Lao People’s Democratic Republic and most recently Costa Rica, El Salvador, Liberia and Malawi.

Secured transactions regimes are designed to make it easier for small and medium-size enterprises to obtain credit and other types of funding from both traditional and nontraditional financial institutions. However, these systems should be supported by effective enforcement mechanisms. The most traditional component of an effective secured transactions system is a guarantee over assets (nonpossessory security interests) where a debtor is authorized to continue operating by using the secured asset for the benefit of their business. In addition to the traditional nonpossessory pledge, other guarantee equivalents have emerged in an effort to increase business capital. For example, with a financial lease, a business can use a leased machine in exchange for monthly payments. However, had this debt not been recorded, future lenders would not have a clear view of the business standing and who has priority over its assets, especially if the business becomes insolvent. The registration of assets in a well-running collateral registry is crucial for the efficient operation of financial institutions.

Reforms to legal frameworks governing secured transactions have increased worldwide in the past decade, benefitting creditors and businesses alike. The enactment of laws that cover all types of lending contracts using movable assets as collateral can expand the scope of assets available to secure repayment of a loan. The capital stock of businesses in most developing economies is typically in movable assets. The ability to use movable assets as collateral is therefore central to improving access to credit and, in a broad sense, to funding. Such collateral can be created on a range of assets. Further, there are many equivalents to traditional collateral where the borrower keeps use of the collateral—often referred to as functional equivalents—including fiduciary transfer of title, financial lease, assignment of receivables and retention-of-title sales (table 5.1). Funding can be achieved not only through traditional bank financing and credit but also through financial lease agreements, for example, that can benefit small and medium-size enterprises unable to raise money directly in the capital markets. Such agreements allow these firms to access funding, thereby preserving their cash flow and increasing their potential for growth.

Creditors are more willing to provide funding when it can be guaranteed with a security interest, meaning property interests created by agreement or by law over the debtor’s assets. A good practice associated with collaterals that remain in the possession of the debtor so that the company can continue to use them (that is, the company that received the loan keeps using machines that serve as collateral in order to generate profit for its business and pay back the loan) is for the law to allow for a general description of the collateral. Rather than being specific—300 XYZ laptops, serial number 1234, metal colored, 14-inch screen, for example—a general description of
“all laptop inventories” would be acceptable. Credit markets also tend to operate better when the law stipulates that all such interests be registered in a collateral registry so as to be enforceable against third parties.

It is essential that national legislation allows for a nonpossessory security interest. A financial lease on a company’s machine does not, for example, imply that the machine will be handed over to the lessor but rather that the firm may use the machine to carry on business and generate profits to pay off the debt. A modern collateral registry should protect the nonpossessory security rights of creditors against third parties by ensuring transparency. Legislation should also allow for collateral to cover any assets obtained in the future or acquired after the collateral was created as well as products, proceeds and replacements of the original assets (for example, wood in stock is guaranteed for a loan used to produce furniture that is automatically collateralized).3 The law should allow for a general description of the assets subject to security, without requiring detailed descriptions or serial numbers, within the scope of the value of the loan. The description should provide enough detail to simply allow the identification of the collateral. Permitting a wide range of assets to be used as collateral provides security for all types of obligations, present and future, including one-time loans and revolving credit lines.

### COLLATERAL REGISTRIES

A centralized collateral registry—which encompasses all types of collateral, security interests and their functional equivalents—should support the secured transactions legal and institutional regime at the national level. This registry is distinct from a serial number collateral registry which serves for registration of assets such as motor vehicles, sea-going vessels and aircraft, for example. A modern secured transactions system allows secured creditors to establish their priority to the collateral, in case of business liquidation or default, in an efficient and transparent manner. The collateral registry needs to be centralized nationally, unified for all types of movable assets, accessible online for verifications, registrations, amendments and renewals, searchable by debtor’s identifiers and accessible to the general public. The registration process needs to be simple, requiring only the basic information related to the collateral, such as identifiers of the parties, description of the collateral and the secured amount without need for specification. The law should not have as a registration requirement that the underlying security documentation—such as loan agreements, security agreements, and the terms and conditions of the loan—be reported to the collateral registry for the simple reason that the purpose of the registry is only to “give notice” of a security interest and to establish a priority scheme. Also, a notice-based system eliminates the risk of human error by registry employees and reduces the cost of operating the collateral registry. Policy makers should encourage a modest registration fee be charged to offset the operational costs of running the registry.

The introduction of a collateral registry increases the share of firms with access to a line of credit, loan or overdraft (figure 5.1). One study showed that the number of firms with access to finance increased by approximately 8% on average in the period following the introduction of the registry for movable collateral; interest rates also fell and loan maturities were extended. Introducing a new registry for movable collateral has stronger benefits for small firms, which are often more constrained in their access to finance and do not have many fixed assets that can serve as collateral but which, on the other hand, are often the primary generators of new jobs and make a substantial contribution to economic growth, particularly in the developing world.4

A ground-breaking property law was approved in China in 2007 and a modern collateral registry was set up in the same year. More than a dozen government policies and regulations concerning movable asset finance have been issued since. As a result, a majority of lending institutions have rolled out various credit products based on movable assets benefiting mostly small and medium-size enterprises but also agribusiness

<table>
<thead>
<tr>
<th>Functional equivalents</th>
<th>Possession (usage of assets)</th>
<th>Ownership title (to asset)</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fiduciary transfer of title (of a movable asset)</td>
<td>Borrower</td>
<td>Lender (Borrower after full loan is paid)</td>
<td>Borrower transfers title of movable asset (for example, a sewing machine) to lender (creditor), but keeps and uses machine. Title of machine is returned to debtor when loan is fully repaid.</td>
</tr>
<tr>
<td>Financial lease agreement</td>
<td>Lessee</td>
<td>Lessor (Lessee after full lease is repaid)</td>
<td>Lessor (creditor) owns leased asset which he leases to lessee. Lessee makes payments that amortize full or substantial part of cost of leased asset.</td>
</tr>
<tr>
<td>Assignment of receivables</td>
<td>Creditor</td>
<td>Debtor</td>
<td>Debtor assigns right to receive payments from specific account receivables to creditor (lender) but remains owner of accounts.</td>
</tr>
<tr>
<td>Sale with retention of title</td>
<td>Debtor</td>
<td>Seller (Debtor upon full repayment of price)</td>
<td>Debtor buys movable asset from seller (creditor), but seller keeps ownership title until debtor repays full price.</td>
</tr>
</tbody>
</table>
operators and domestic and international traders. A digital accounts receivable finance platform under the central bank has been running since the end of 2013 with a cumulative financing volume of about $400 billion. The share of commercial credit involving movable assets has been raised from 12% in 2004 to around 40% currently. Cumulatively since the end of 2007—and for accounts receivable and lease finance only—over 2.2 million transactions have been registered at the collateral registry with a financing volume of at least $10 trillion. Annual disbursements of debt finance involving movable assets is around $3 trillion, including large but important infrastructure deals and the issuance of bonds backed by receivables.

Besides achieving impressive results, Ghana’s collateral registry reform project from 2008 to 2014 enabled the design and implementation of the first modern collateral registry in Africa, opening the market for secured transactions and collateral registry reforms in the region. Between its establishment in 2010 and the end of 2015, the registry facilitated $1.3 billion in financing for small-scale businesses and $12 billion in total financing for the business sector overall using only movable assets as collateral for loans. Women entrepreneurs have played an important role in this scheme—women borrowers account for 40% of total registrations and more than $100 million in financing for this sector.

As in most fragile and conflict-affected economies, the lack of access to credit remains a key challenge to enterprise development in Liberia. A collateral registry was officially launched in Liberia on June 18, 2014. It was widely expected that the Ebola crisis, which had a negative impact on commercial bank financing, would have reduced the use of the collateral registry as well. By June 2016, however—only two years after its launch—the registry had recorded 527 security interest registrations, over 94% of which were women), facilitating financing of more than $237 million.

**TWO WAYS TO REFORM**

Eighty two economies have reformed their legislation governing secured transactions over the past decade. During that period two approaches have emerged in the way these economies have made the adjustments to their national laws to expand coverage to all traditional security interests on movable assets and their functional equivalents. The Doing

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**FIGURE 5.1 The introduction of a collateral registry increases access to finance for businesses**

<table>
<thead>
<tr>
<th>Registry reform year</th>
<th>Access to finance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Croatian</td>
<td>2006 2008 2010</td>
</tr>
<tr>
<td>Rwanda</td>
<td>2005 2006 2007 2008 2009</td>
</tr>
<tr>
<td>Ukraine</td>
<td>2001 2002 2003 2005 2006 2007 2008 2009</td>
</tr>
</tbody>
</table>

Source: Adapted from Love, Martínez Pería and Singh (2013, figure 1).

Note: The vertical line indicates the year of introduction of a collateral registry for movable assets.
Business getting credit indicators capture some of these reforms (figure 5.2).

The first approach is to introduce one comprehensive law covering secured transactions that regulates all types of security interests available to both incorporated and non-incorporated entities. An example of this approach is the new secured transactions law in Colombia, which entered into force in August 2014. A follow-up regulation established the terms for the implementation of a centralized collateral registry. Together these established a modern legal regime for secured transactions wherein all types of movable assets, present or future, may be used as collateral to secure a loan. Functional equivalents of loans secured with movable property, such as assignment of receivables or sales with retention of title, were brought under regulation. The law also provides for priority rules outside bankruptcy and establishes the rights of secured creditors during a reorganization procedure, thereby assuring lenders that they can recover payments due ahead of any other claims. Finally, the law permits out-of-court enforcement of collateral allowing for both public tender and private sale.

The new legal framework in Colombia allows borrowers to obtain loans by using collateral resources such as inventory, machinery and crops. Since the registry went live in March 2015, there have been over one million registrations valued at more than $93 billion. Over 10% of these loans represent new credits. More than 100 financial institutions are participating in the registry of lenders. Some of Colombia’s largest banks have provided loans secured by movable collateral including embroidery machines, milking equipment and rice crops. According to data from the World Bank Enterprise Surveys, almost one third of Colombian entrepreneurs cited access to credit as the most pressing constraint to the growth of their enterprise before the law was enacted. This is nearly double the average for the rest of Latin America and the Caribbean.

Costa Rica is one of the most recent examples of introducing a secured transactions system which allows entrepreneurs to leverage movable assets for a loan. More than 40% of small and medium-size enterprises consider the lack of funding a barrier to their economic activity. Proper implementation was the main challenge in introducing a new secured transactions system in Costa Rica, as is commonly the case when such a reform is introduced. The reformed system requires a paradigm shift in various perceptions and lending practices, such as raising the awareness of all users and providing training so that they can use the system more efficiently. Costa Rica’s system was launched in May 2015 and by December 2015 registrations totaled 5,334, including over 2,900 small and medium-size firms receiving loans secured with movable property.

In Jamaica, a law which came into force in January 2014 established a modern legal framework for secured transactions

#### FIGURE 5.2 Legal rights of secured creditors in several economies that reformed in 2014-2016

<table>
<thead>
<tr>
<th>Economy</th>
<th>Before reform</th>
<th>After reform</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colombia</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>Jamaica</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>Average</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>Afghanistan</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>El Salvador</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Liberia</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Malawi</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Lao PDR</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>OHADA</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

Sources: Doing Business database; Enterprise Surveys database (http://www.enterprisesurveys.org), World Bank.

Note: This figure captures economies with reforms between Doing Business 2014 and Doing Business 2017. Reforms that took place earlier or prior to the inception of Doing Business 2003 are not reflected in this figure. The score for Indonesia and Mexico is the average for both cities measured in each case.
wherein all types of movable assets, present or future, can be used as collateral to secure a loan. The law also regulates functional equivalents of loans secured with movable property such as financial leases or sales with retention of title and also allows out-of-court enforcement of the collateral through public auction or private sale. The same law also established the regulation for the implementation of a centralized collateral registry.

Afghanistan introduced a law in 2009 establishing a comprehensive secured transactions regime with a functional approach. The law regulates both present and future collateral and its proceeds and contains clear rules of enforcement through public auction or private sale. With the support of the Afghanistan secured lending project, which aimed to increase private sector credit access by strengthening lenders’ rights in movable assets, a fully-operational, modern, centralized collateral registry was created in March 2013. The registry, which is hosted by the central bank, allows for online registrations, searches, modifications and cancellations. Establishing the secured transactions system in Afghanistan was accomplished in three stages. First, careful planning of legislative reform led to the enactment of the law in 2009 as well as amendments to existing laws and regulations aimed at enhancing the rights of creditors in movable assets. Second, the movable assets registry was established to enable lenders to effectively file a notice related to their proprietary rights. Third, a public awareness and capacity building program was launched in March 2013 to educate government and private sector participants about the benefits of a well-functioning secured transactions system. Following the training of officers at the central bank, the institution has taken the lead in raising public awareness in Afghanistan on the use of the collateral registry. This new legal and institutional framework has resulted in more than 4,500 loans registered by all 16 commercial banks and 2 microfinance institutions since the registry’s launch.

The majority of clients (85%) are micro, small and medium-size enterprises. The value of financing using movable assets was estimated at $910 million as of August 2015, including various lending products where accounts receivable and tangible assets are used as securities. Furthermore, over 10,000 online searches have been conducted, highlighting the widespread use of the system.

In all of the above cases the law foresees the extension of the original collateral to future assets. Many jurisdictions only permit grantors to create security rights in assets that are in existence and that they own when the security right is created (that is, they are not able to grant security in assets not yet in existence or that they have not yet acquired). This restriction is to protect debtors from over-committing their assets—in particular, their future assets—to one secured creditor. Nevertheless, because businesses may not always have available existing assets to secure credit, this limitation prevents them from obtaining various types of credit that are predicated upon a stream of future assets, such as inventory and receivables. Thus it is a good practice that, except to the extent that consumer protection legislation provides otherwise, a security right should be created in future assets. Also, the cost of secured credit depends in part on the cost associated with obtaining security rights. An efficient secured transactions regime will establish streamlined procedures for obtaining security rights. Transaction costs will be reduced notably by minimizing formalities, providing for a single method for creating security rights rather than a multiplicity of security devices for different types of encumbered asset, and providing a mechanism that permits the creation of security rights in future assets and securing future advances of credit without the need for any additional documentation or action by the parties.

The application of new legislation often reveals areas for improvement of the law or the supporting institutions. A law in Bosnia and Herzegovina, which adopted the functional approach, established the same regime for possessory pledges (when the debtor must transfer the collateral to the creditor or a third party), nonpossessory pledges, leases and other security rights. A pledge can include tangible property, like machinery or inventory, bank accounts, account receivables, or shares in a company with limited liability. The law permits great freedom to define both the object of the security (specifically or generally, including as a pool of fluctuating assets) and also the secured debt (including revolving loans, credit lines), thereby providing companies with significant flexibility with respect to their collateralized assets.

The 17 member states of the Organization for the Harmonization of Business Law in Africa, known by its French acronym OHADA, have also reformed existing legislation in recent years. These changes have broadened the range of assets that can be used as collateral (to include future assets), extended security interests to the proceeds of the original asset and introduced the possibility of out-of-court enforcement. However, the establishment of a centralized, modern, notice-based collateral registry—available online for the registration of lending contracts, searches by debtor’s name, modification and cancellations—remains a challenge in these economies.

The second approach for creating a modern secured transactions legal system is by introducing specific provisions to existing legislation. Hungary, for example, amended its civil code in 2014 to include new rules and principles for the creation, publicity and enforcement of pledges over movable assets by specifically extending the pledge to include its products and proceeds. Such pledges can now be registered online directly by the contracting parties. Similarly, Poland has amended numerous laws to allow for rights in movable assets to be created for security purposes by agreement. A bill, once approved by the Parliament, will
allow for electronic auctions of debtors’ movable assets through an electronic system provided by the district courts and the exchange of legal correspondence through electronic means. Electronic auctions are expected to reduce the need to hold multiple physical auctions by reaching out to a wider market of potential buyers. Amendments to existing laws have also been implemented in the Czech Republic. The definition of receivables, which are now considered movable assets, was modified in 2014 following a change to the civil code. As a result, legal provisions related to security interests and the pledge registry are now applicable to receivables. In addition, the law allows secured creditors to enforce their security interests out of court, through a public auction, and to execute a security as stipulated in the security agreement.

In jurisdictions where multiple laws regulate various types of security interests and their functional equivalents, the requirement to register all types of collateral in a unified collateral registry can act as a catalyst. In 2013, Indonesia operationalized a national movable collateral registry, through which registration of all types of security rights over movable assets are processed and managed. However, fiduciary transfer registrations were only allowed to be completed by notaries and other functional equivalents were not recorded in the registry database. In 2015 the online registry for fiduciary transfer in Indonesia—which centralized all fiduciary transfer registrations since 2013—expanded its database to be searchable online by debtor’s name, among other unique search elements. The search function is accessible to the public through the online portal.

Some of the economies that chose to replace various incomplete laws governing the security interest with a single piece of updated legislation also followed up with the creation of a modern collateral registry, resulting in a higher average score on the strength of legal rights index. However, those economies that chose to amend their existing laws to create a unified secured transactions regime scored significantly lower on average. This suggests that multiple good practices were already included in the existing provisions. Complementing existing legislation with new legal and regulatory reform works well in economies where legislation is relatively solid and functional. Many economies in Europe and Central Asia, Sub-Saharan Africa and Latin America and the Caribbean have followed this approach by introducing laws unifying the regulation and registration of security interests including functional equivalents.

NOTES

1. Typical examples of movable assets are machines, inventory and furniture, among others.
5. The data cited for registries in China, Ghana and Liberia were provided by World Bank Group staff that obtained them for the respective registries.
The ability to access affordable credit is a critical element of private sector-led growth. While factors such as interest rates and collateral requirements play an important role in access to finance for firms and individuals, underdeveloped financial infrastructure increases the cost and risk of lending to both borrowers and financial services providers. A comprehensive credit reporting system that includes credit history data not only from banks but from other institutions—such as trade creditors, leasing and factoring companies, retailers and utilities and microfinance institutions—is critical in the establishment of a well-developed and inclusive financial infrastructure. This can be of special importance for developing economies where lower levels of institutional development—reflected in weak judicial systems and creditor rights—are associated with greater financing constraints and less developed credit markets.

Access to finance is a fundamental factor affecting the growth opportunities of small businesses. Globally, 27% of firms identify access to finance as a major constraint. While a quarter of firms use banks to finance investments, only 15% of these firms’ total investments are financed by banks, with 71% of investments being financed internally, 5% by supplier credit and 5% by equity or stock sales. Compared to large firms, smaller firms finance a lesser share of their investment from formal sources, relying instead on informal sources such as borrowing from family and friends or from unregulated moneylenders. Around 70% of formal small and medium-size enterprises in developing economies are estimated to be either unserved or underserved by the formal financial sector. The total credit gap that they face amounts to $1.3 to $1.6 trillion, or $700 to $850 billion if firms in OECD high-income economies are excluded. A credit reporting system that accounts for the diverse sources of finance for small and medium-size firms can contribute to a reduction of the credit gap and the promotion of private sector growth.
Lenders and borrowers—both individuals and firms—benefit from sharing credit information with credit reporting service providers (CRSPs). In economies where a larger share of the adult population is covered by CRSPs, more adults have a credit card, borrow from a bank or other financial institution (figure 6.1) and formal private sector lending is higher (figure 6.2). This is consistent with earlier studies indicating that credit reporting institutions are associated with higher ratios of private credit to GDP across economies and that an improvement in information sharing increases credit levels over time.\(^{11}\) Higher economic growth rates and a lower likelihood of financial crisis are additional benefits associated with greater credit reporting.\(^{12}\) It is important to note that the figures presented here describe an association between variables measuring credit reporting systems and credit market outcomes. No causality is implied given the cross-economy nature of the data.

More firms tend to have bank loans or lines of credit (figure 6.3) and fewer rejections of loan applications (figure 6.4) in economies where credit bureaus and credit registries have higher commercial borrower coverage. This finding is consistent with recent analysis using firm-level surveys of 63 economies covering more than 75,000 firms over the period from 2002 to 2013. Its results reveal that the

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**FIGURE 6.1** In economies where borrower coverage is higher, the share of adults with credit cards and borrowing from financial institutions is larger

**FIGURE 6.2** In economies where borrower coverage is higher, the levels of formal private sector lending are higher

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Note: The samples include 106 and 130 economies covered by both Doing Business database and Global Findex database. Both relationships are significant at the 1% level after controlling for income per capita.
introduction of a credit bureau improves the firms’ likelihood of access to finance, with longer-term loans, lower interest rates and higher share of working capital financed by banks. The study also finds that the greater the coverage of the credit bureau and the scope and accessibility of the credit information, the more profound its impact is on firm financing. By sharing credit information credit reporting helps to reduce information asymmetries between creditors and borrowers. Borrowers typically know their financial abilities and investment opportunities much better than lenders do. The inability of lenders to accurately assess the creditworthiness of borrowers contributes to higher default rates and smaller loan portfolios. Lenders are also more likely to lend to larger firms, which may be more transparent as a result of more elaborate legal and accounting rules and the regular publication of certified financial reports.

Credit reporting has been shown to decrease contract delinquencies and defaults, especially when firms are informationally opaque, without loosening lending standards. Studies suggest that, following the introduction of credit reporting systems, repayment rates have risen when lending is for a single transaction and repayment is not enforceable by a third party, mainly because borrowers believe that a good credit record improves their access to credit. Credit reporting also affects market outcomes by weakening lenders’ ability to extract rents while leading to higher profits and lowering the risks to banks. In addition, more advanced credit reporting systems and greater financial sector outreach are associated with a lower degree of tax evasion by firms.

For an individual without an established credit history, securing a loan from a formal financial institution can become a vicious circle. Lenders are typically reluctant to provide financing with limited client credit information. This credit information asymmetry could be mitigated by casting a wide net across various credit sources—beyond just banks—to collect valuable information about the repayment history of borrowers and potential borrowers. Even if individuals and firms do not have a traditional banking relationship, they are likely to have a credit history with other types of credit providers. For individuals, these could include utility companies that have records of clients’ payment histories. Trade creditors—that effectively extend unsecured, short-term lines of credit—could attest to how well a firm fulfills its commitments.
In contrast to segmented credit reporting, which is based on the collection and distribution of information from/to a limited number of sources, comprehensive credit reporting is based on the collection and distribution of information from a wide array of sources and sectors, including retail, small business, microfinance, corporate credit cards, insurance, telecoms and utility companies, among others. Those credit bureaus and credit registries that collect and distribute data from a larger number of sources also have higher coverage rate (figure 6.5). These “non-traditional” sources of data—such as data on payments associated with utilities or telecom services—bolster information on “thin file” clients who are not typically covered by traditional sources. As a result, comprehensive credit reporting increases the ability of creditors to assess and monitor credit risk, creditworthiness and credit capacity.

CASTING A WIDE NET

Economies that adopt a more comprehensive approach and report repayment histories from non-regulated entities tend to include higher numbers of individuals and firms with different income levels and backgrounds in their credit reporting system (figure 6.6). The following sections describe how the use of data from these entities enhances the coverage of consumers and firms with a limited borrowing history.

Trade creditors

Trade credit, where goods or services are provided before payment, typically consists of an open, unsecured line of credit. Through their provision of trade credit, business suppliers are among the most important non-financial institutions for businesses, particularly small and medium-size firms. The use of trade credit data in credit reporting can help firms without a loan or other credit facility with a regulated financial institution to develop a credit history. However, this information is rarely reported. The main credit bureau or credit registry collects data from trade creditors in only 36 economies measured by Doing Business (figure 6.7). These are mainly concentrated in Latin America and the Caribbean (10) and OECD high-income economies (9). On average, the coverage of the credit reporting systems that collect and report data from trade creditors is 29% higher than those systems that do not report such data.

Trade credit data can play a positive role in increasing access to traditional sources of finance, such as banks, as they are a

FIGURE 6.5 More varieties of data providers are associated with a higher level of borrower coverage

![Graph showing the relationship between the number of types of credit data providers and credit bureau or registry coverage (% of adult population).](image)

Source: Doing Business database.
Note: The sample includes 177 credit bureaus and credit registries. The relationship is significant at the 1% level after controlling for income per capita.

FIGURE 6.6 Economies reporting non-financial credit data tend to have higher coverage of the adult population

![Bar chart showing average coverage (% of adult population) by type of data provider.](image)

Source: Doing Business database.
Note: Data include 190 economies. For the definition of coverage, see the data notes.
reliable source of information on a firm’s financial health. Ratings based on trade credit payment information can more reliably predict firm failure compared to other types of information that are available to lenders, such as firm financial statements.\(^1\) Trade credit is also associated with higher access to bank financing for firms, with trade credit information acting as a signal of the quality of the firm. The impact of such data is even stronger in the case of younger firms in the early stages of the banking relationship when banks have not accumulated enough soft information on them to support their reputation.\(^2\)

A stronger participation of trade creditors in the credit reporting system through increased information sharing can also expand access to trade credit for small and medium-size firms. A recent study in the United Kingdom found that if trade creditors had access to credit reports and credit scores based not only on data from public sources but also data from banks and other financial intermediaries, the credit scores of 50% of firms in the sample would improve and 21% of these would see their credit limits increase.\(^3\)

In the United States, Dun and Bradstreet used trade payment data to develop the Paydex score for millions of firms in its database. The score provides information on the likelihood that a business will meet its payment obligations to suppliers and vendors.

**Finance corporations and leasing companies**

Leasing and factoring companies are also important sources of finance for firms and can be valuable data providers to credit bureaus and registries. When leasing, a firm makes a small down payment and subsequent monthly payments on the equipment—usually for a period of five years or less. At the end of the lease term the firm can purchase the equipment by making a minimal buyout payment. Factoring is a transaction where a business sells its account receivables to a third-party financial company in order to raise funds. Through factoring businesses can boost their cash receipts while also outsourcing credit and collections, thereby freeing up owners to spend more time concentrating on core competencies. In practice, however, the majority of factoring companies do not share their data with credit bureaus.

Leasing presents an important financing opportunity for young firms and enables them to preserve cash for profit-generating activities. In economies where weak collateral laws hinder bank lending, leasing typically offers the advantage of not requiring collateral beyond the security of the leased asset itself.\(^4\) Because the leasing company purchases the equipment directly from the supplier, little opportunity exists for the firm to use the funds for other purposes.\(^5\) The separation of ownership and control of leased assets also facilitates a simpler recovery procedure, even in weak legal and institutional environments.\(^6\) In many economies firms can offset their lease payments against income before taxes, compared to just the interest on bank loans in buying equipment. The leasing companies may also pass on tax benefits associated with their depreciation to the firms through lower financing cost.\(^7\)

Leasing activities are not equally developed across all emerging market economies. There are nascent leasing industries in low-income economies in Africa and Asia and maturing leasing markets in the more advanced economies of Latin America and Eastern Europe.\(^8\) In the euro area,\(^9\) leasing, hire-purchase and factoring are the third most important financing source for small and
medium-size enterprises, preceded by bank overdrafts, credit lines, credit card overdrafts and bank loans.28 Between October 2014 and March 2015, 44% of small and medium-size firms in the euro area reported using leasing in the previous six months or considering it as a relevant source of finance.29

There are 110 economies worldwide that have at least one CRSP that reports repayment history from financing corporations and leasing companies. OECD high-income economies have the highest proportion of such economies (84%), followed by Europe and Central Asia (76%), Latin America and the Caribbean (63%), East Asia and the Pacific (60%), Middle East and North Africa (60%), South Asia (50%) and Sub-Saharan Africa (27%). The Czech Republic’s credit bureau, CRIF, set up a non-banking bureau in 2005, covering leasing and sales data that were not available in the banking registers. The price for using these data varies according to the type of company—for example, different prices apply to providers of small consumer credits and car leasing companies. In Taiwan, China, a new product, “R04 Finance Leasing Information,” was released by the Joint Credit Information Center (JCIC) in February 2014, after an agreement with the finance leasing association. This provides JCIC’s member institutions access to borrowers’ leasing transaction information from finance leasing companies. The JCIC also benefits finance leasing companies by offering them an electronic credit report on borrowers.

Utility companies
More than half of adults in the poorest 40% of households worldwide do not have a bank account at a financial institution.30 This represents an obstacle for borrowers who are unable to build credit histories that would increase their chances of obtaining loans. Collecting credit data from utility companies, such as electricity providers and mobile phone companies, is particularly important for the poor. A recent study by the DataCrédito credit bureau in Colombia—which distributes information from utilities in its credit reports—showed that the telecommunications sector is the channel through which the majority of new borrowers, without previous credit relationships, enter the credit market.31 In the United States research has found that the acceptance rate for new loans can increase by up to 10% for those borrowers with “thin files” once data from non-traditional sources such as utilities and telecoms are included in the credit reports.32

In economies where credit bureaus or registries include data from utility companies, the average coverage of the credit reporting system tends to be higher (65%) than in those where such information is not available (28%). The main CRSP in 50 economies distributes these data in its reports. The majority of these are in Latin America and the Caribbean (15) and in OECD high-income economies (12). In the United States, DTE Energy—an electricity and natural gas company—began fully reporting customer payment data to credit bureaus in August 2006. DTE customers with no prior credit history (8.1% of the total) gained either a credit file or a credit score and began to prioritize making payments to DTE.33 Within six months DTE had 80,000 fewer accounts in arrears. This good practice is also being implemented in developing economies. In Rwanda, for example, shortly after the launch in 2010 of the country’s first credit bureau, two telecommunications companies and one utility began providing credit information to the bureau. This has contributed to increasing the coverage of the credit reporting system from less than 1% of the adult population in 2010 to 16.6% in 2016. In Mongolia, MobiCom Corporation—a telecommunications company—began providing credit data to the credit registry in March 2015. As a result, credit reports in Mongolia now include negative payment information for telecommunication services and full payment history for mobile phone leasing.

Microfinance institutions
Microfinance institutions that offer financial services to low-income populations help bridge the gap in access to credit from traditional lenders by providing small loans—usually with collateral substitutes such as group guarantees—that can gradually increase based on good repayment patterns. Microcredit benefits low-income populations and enterprises that are typically small, labor intensive and growing. The Grameen Bank in Bangladesh, for example, provided credit for the purchase of capital inputs and promoted productive self-employment among the poor and women, while participation in the program had a significant impact on female empowerment.34 Microcredit clients’ enterprises have been found to perform better than non-client enterprises in terms of profits, fixed assets and employment.35

Over the past 30 years, the microfinance industry has grown to reach an estimated 200 million clients.36 While having positive impacts on assets and income levels, microfinance institution services may increase vulnerability if borrowers overleverage and pose risks to the financial systems.37 A 2011 survey found that credit risk is the top concern for microfinance professionals in 86 economies.38 The inability of lenders to accurately assess the risk of default contributes to relationship-based lending. By submitting microcredit data to credit reporting service providers microfinance institutions can minimize problems of asymmetric information. Reporting microfinance data benefits borrowers (by establishing repayment histories that help them obtain loans), microloan lenders (by helping them assess the repayment capacity of their clients) and regulators (by monitoring credit markets and trends).

Microcredit reporting is expanding. In 2015/16 68% of economies in Europe and Central Asia have an operational credit bureau or credit registry that reports microcredit information; 45% in the Middle East and North Africa; 38% in Latin America and
the Caribbean; 31% in Sub-Saharan Africa; 28% in East Asia and the Pacific and 25% in South Asia. In India the growing microfinance market is concentrated in just a few states, leading to multiple cases of lending and over-indebtedness within the same borrower base. Since 2010 IFC has helped India’s fastest growing credit bureau, CRIF High Mark, to expand its services to microfinance lenders, ensuring informed lending and promoting financial inclusion. In Bolivia, in the three years following the establishment of a microfinance credit reporting system, microcredit lending more than doubled (outpacing a 23% rise in traditional bank lending), and the percentage of nonperforming loans decreased. Similarly in Bosnia and Herzegovina, the inclusion of microfinance institutions in the credit reporting system contributed to a higher level of financial discipline and a significantly lower level of nonperforming loans.

## CONCLUSION

The lack of access to formal banking continues to represent a hurdle for millions of individuals and firms as the problem of asymmetric information excludes them from traditional credit markets. Casting a wide net of sources of data in the credit reporting system can help to address this problem by making it easier for borrowers to develop a credit history.

Alternative sources of data include leasing and financial corporations, trade creditors, utility companies and microfinance institutions. The credit information that these institutions have on their customers can be used to expand the coverage of the credit reporting systems by providing information on individuals and firms with limited recorded borrowing history. Coverage is higher in those economies where data from these entities are actively collected and distributed by the credit reporting service providers. Additional sources of data can improve the accuracy and scope of the credit reports produced by credit bureaus and credit registries and generate incentives to improve borrower discipline, particularly in economies with weak legal enforcement mechanisms. When more information is available to lenders they can evaluate more clearly the creditworthiness of their potential clients, which ultimately translates into increased access to finance and cheaper loans.

Comprehensive credit reporting is expanding as economies adopt strategies and solutions according to their particular needs. Although CRSPs have made stronger progress in this area in OECD high-income economies and, to a lesser extent, in Latin America and the Caribbean, several emerging economies are adopting innovative approaches to improve the quality and scope of their credit reporting systems. By including data from trade creditors, finance corporations, utility companies and microfinance institutions, these types of initiatives have the potential to improve the chances of getting credit for millions of low-income individuals and firms.

## NOTES

This case study was written by Edgar Chavez, Charlotte Nan Jiang and Khrystyna Kushnir.

2. Beck and others 2006; Djankov and others 2007.
10. Stein and others 2013.
17. Stein and others 2010.
18. A typical example of segmented credit reporting would be information that is collected from banks and is distributed only to such banks.
19. Kallberg and Udell 2003. The authors analyze the capacity to correctly predict firm failure of Dun and Bradstreet’s Paydex score—which is based on the number of days past due for a firm’s last year of trade experiences—in contrast with financial statement information of the firm including leverage, quick and net liquid balance ratios.
27. Austria, Belgium, Finland, France, Greece, Germany, the Netherlands, Ireland, Italy, Portugal, Slovakia and Spain.
32. Turner and others 2006.
38. Lascelles and Mendelson 2009.
39. While comprehensive credit reporting helps to promote financial inclusion, the main motivation was to address the problem of multiple lending and over-indebtedness among microfinance clients in India.
40. Bustelo 2009.
41. Lyman and others 2011.
42. Economies must address many challenges to enable comprehensive reporting, including integrating unregulated sectors in the regulatory regime and identifying microfinance borrowers.
Protecting Minority Investors
Achieving sound corporate governance

Investment is key to private sector development. Yet business risk, political risk and other exogenous factors can turn a seemingly well-calculated investment decision into a loss. The one factor, however, that can be mitigated through adequate regulation is legal risk. Doing Business, through the protecting minority investors indicator set, measures aspects such as the protection of shareholders against directors’ misuse of corporate assets for personal gain and the rights and role of shareholders in corporate governance.

When it comes to private sector and capital market development, shareholder protection and empowerment are increasingly elevated to policy goals—even more so following the 2008 global financial crisis. Policy makers around the world are implementing reforms aimed at increasing the involvement of minority shareholders in corporate decisions. In fact, Doing Business has recorded and documented 166 reforms to aspects of corporate governance in 100 economies since 2005 (figure 7.1).

The legal implications of shareholder empowerment have been studied extensively. The literature has been scarcer, however, on the effect of shareholder empowerment on economic indicators, such as firm value, profitability, cost of capital, or capital market size. One of the objectives of Doing Business is to provide standardized, comparable measurements on the adoption of corporate governance practices across 190 economies that can be tested against economic indicators. Using Doing Business data and existing literature, this case study presents empirical evidence on the economic benefits of such reforms.

Doing Business has recorded and documented 166 reforms to aspects of corporate governance in 100 economies since 2005.

Since 2013, 54 economies introduced 63 legislative changes strengthening minority shareholder protections: 38 on the extent of conflict of interest regulation index, 17 on the extent of shareholder governance index and eight on both.

Doing Business data confirm the positive relationship between greater protection of minority shareholders on the one hand and capital market development and access to equity finance on the other.

India carried out an ambitious, multi-year overhaul of its Companies Act, bringing Indian companies in line with global standards—particularly regarding accountability and corporate governance practices—while ensuring that businesses contribute more to shared prosperity through a quantified and legislated corporate social responsibility requirement.

When tackling what they referred to as “excessive remuneration in publicly listed companies” Swiss lawmakers opted for a comprehensive reform that also regulated the election and term of board members, their organization in subcommittees and their reporting obligations.
of corporate governance practices that promote shareholder protection and empowerment. The study also contributes to defining the concept of sound corporate governance.

**WHAT ARE SOUND CORPORATE GOVERNANCE PRACTICES?**

Sound corporate governance is the optimal balance between controlling shareholders, minority shareholders, company managers and market regulators. Many studies provide evidence that achieving sound corporate governance promotes economic development through higher returns on equity, efficiency of investment allocation, firm performance and valuation, lower cost of capital and easier access to external financing.6

That growing attention is being devoted to corporate governance is neither new nor surprising. Today the Organisation for Economic Co-operation and Development (OECD) principles of corporate governance,7 originally developed in 1999 and last updated in 2015, constitute a cornerstone. The American Law Institute, whose corporate governance project was formally initiated in 19788 and materialized whose corporate governance project was cornerstone. The American Law Institute, and last updated in 2015, constitute a regulatory index.

Marshall’s study provides evidence that achieving sound corporate governance promotes economic development through higher returns on equity, efficiency of investment allocation, firm performance and valuation, lower cost of capital and easier access to external financing.6

That growing attention is being devoted to corporate governance is neither new nor surprising. Today the Organisation for Economic Co-operation and Development (OECD) principles of corporate governance,7 originally developed in 1999 and last updated in 2015, constitute a cornerstone. The American Law Institute, whose corporate governance project was formally initiated in 19788 and materialized into principles in 1992,9 is another foundational reference.

**Corporate governance and development**

Introducing corporate governance principles—as opposed to giving each company complete discretion in determining its internal rules—guarantees a minimum standard through which companies must be directed and controlled.10 When these rules are violated these principles also provide shareholders with judicial recourse.11 Investors become more willing to finance the business ventures of others without exerting direct control over the affairs of the company.12 As a result, entrepreneurs can tap into broader sources of financing. With easier access to capital, companies are more likely to grow, generate tax revenues and create jobs.13

The benefits extend beyond greater access to finance. Corporate governance also contributes to value maximization throughout the life of a company.14 Properly executed, it ensures that companies are run in the best interest of their owners.15 Executives and managers are given authority to do so efficiently, with sufficient discretion to apply their skills and business acumen.16 Internal structures and processes are clearly laid out.17

The risk of mismanagement and abuse is mitigated thanks to increased accountability, predictability and transparency.

The aggregate effect of all companies following sound corporate governance promises significant positive outcomes for the economy overall. Research shows how sound corporate governance can lead to higher returns on equity and greater efficiency.18 In deciding the rules and practices that individual companies must follow, legal scholars and legislators have traditionally relied on concepts such as legal certainty,19 predictability, equity and enforceability. To empirically assess the relevance of these concepts to the overall performance of an economy, scholars increasingly started to use quantitative analysis tools. The so-called law and economics approach, and its subsequent branching into law and finance, have become an integral part of modern policymaking.20

**What does the protecting minority investors indicator set measure?**

The protecting minority investors dataset provides data for 38 aspects of corporate governance in 190 economies, grouped into two sets of three indices each (table 7.1).

The first set of indices focuses on the regulation of conflicts of interest, specifically self-dealing in the context of related-party transactions. A related-party transaction refers to a case where a person has an economic or personal interest in both parties to the transaction. A company executive entering into a supply contract with another company that is wholly owned by his or her spouse is an example of a related-party transaction. Although related-party transactions are not inherently harmful, they are more likely to result in self-dealing—a type of abuse—and therefore require specific regulation. Self-dealing consists of benefiting oneself while under the duty to serve the interests of someone else. In this example, self-dealing would occur if the supply contract were priced above market so as to benefit the spouse at the expense of the company’s owners. Unsurprisingly, research shows that protecting against self-dealing is positively associated with capital market development.21

The second set of indices provide a more general view of corporate governance practices, ranging from shareholder rights, protection from share dilution, ownership structure and control of the company to managerial compensation and audit transparency. They are derived from recent comparative law and economics research that has analyzed these practices separately in detail, some of which are described hereafter.22

Overall, these two sets of indices present a positive correlation with stock perform.
market development as measured by market capitalization as a percentage of GDP (figure 7.2). Doing Business data confirm the existing research on the positive relationship between greater protection of minority shareholders, capital market development and access to equity finance. Subsequent sections provide more evidence from recent research regarding the effects of various corporate governance practices on economic indicators.

**How have economies enhanced corporate governance?**

Since 2013, 54 economies introduced 63 legislative changes strengthening minority shareholder protections. Twenty-two of these economies did so by introducing practices and requirements measured by the extent of shareholder governance index introduced in Doing Business 2015 (table 7.2). These economies have used a variety of different legislative approaches to strengthen their minority shareholder protections. As part of an ambitious multi-year overhaul of its Companies Act, for example, India enhanced corporate governance by affirming the right of shareholders of privately held companies to approve the issuance of new shares and their priority thereon. The new version of the Companies Act was enacted in 2013 and its provisions progressively entered into force over the following two years.

While India chose to reform the legal foundation applicable to all companies (its Companies Act), the Dominican Republic chose a different approach, focusing instead on companies that offer securities to the public. Among the changes introduced in 2013 to its Regulations of the Securities Market Law, it granted minority shareholders the right to request an extraordinary meeting and required an external audit of the financial statements of listed companies.

Ecuador and Kazakhstan elected to introduce one piece of legislation containing amendments to several other legislative instruments. Ecuador’s 2014 Law to Strengthen and Optimize the Corporate Sector and the Stock Market, for example, introduced changes to the Securities Market Law, the Commercial Code, the Company Law, the General Law of Financial Institutions and the Code of Civil Procedure, among others. The new law also guarantees a way out for minority shareholders when their company changes hands: if a new investor acquires a majority, he or she must make an offer to purchase the shares of all remaining shareholders. Although Swiss lawmakers had one specific area in mind—excessive remuneration in publicly listed companies—when they issued a federal ordinance in 2013, to tackle the problem effectively they chose a comprehensive response. The result was an ordinance that also regulated the election and term of board members, their organization in subcommittees and their reporting obligations. Similar objectives led the Republic of Korea to enact the Financial Investment Business and Capital Markets Act in 2013. One of its features is the requirement that listed corporations disclose the remuneration of chief officers on an individual basis.

Different rulemaking approaches—whether a series of targeted amendments or a one-time complete revision of a code—aimed at different aspects of corporate governance—such as increasing minority shareholder rights or regulating directors and majority shareholders—contribute to better corporate governance practices. Because Doing Business captures outcomes on legal equivalents, these different approaches have a similar impact on its indicators. In other words, to ensure a positive impact on their economy, rather than on benchmarking exercises, policy makers should introduce sounder corporate governance practices in a manner that is consistent with their legal system and tradition. In doing so, policy makers should ensure that different company forms exist, each with different levels of regulatory requirements. Sound corporate governance adapts the compliance burden to company size and revenue. It contributes to creating a “regulatory pyramid,” in which companies at the top in terms of market size, turnover, cash flow and systemic importance are also at the top of the regulatory requirements.

**FIGURE 7.2 Stronger minority investor protection is associated with greater market capitalization**

![Graph showing the relationship between market capitalization and distance to frontier score for protecting minority investors.](image-url)

Sources: Doing Business database; Bloomberg; World Federation of Exchanges database.

Note: The correlation between market capitalization as a percentage of GDP and the distance to frontier score for protecting minority investors is 0.23. The relationship is significant at the 5% level after controlling for income per capita. The sample includes 91 economies for which data on market capitalization are available for the past 5 years.
How would a typical business owner react if employees could set their own salaries and not necessarily inform the owner what amount they have decided to pay themselves? This is essentially how companies in many economies determine the remuneration of board members and senior executives vis-à-vis shareholders. In 2014 Switzerland decided that a different model was necessary and enacted an ordinance introducing checks and balances on senior executive compensation. Its purpose was to address concerns both from the public at large and for firm performance. The Swiss experience is an example of public opinion-induced corporate governance reform following the 2008 global financial crisis. The first step occurred on March 3, 2013, when the Swiss voted in favor of a public consultation initiative best translated as “against remuneration rip-off.” It passed with 68% of the votes. The Federal Council—the seven-member head of the Swiss government—then drafted a regulation reflecting the consultation’s outcome. The Federal Council’s ordinance was published on November 20, 2013, and the new requirements entered into force on January 1, 2014.

A closer look at the legal instruments used by Swiss policy makers illustrates how sound corporate governance improves outcomes. There are two primary mechanisms—disclosure and shareholder vote—through which the ordinance affects corporate governance and therefore firm behavior. The disclosure component requires the board of directors to issue a compensation report annually that shows all compensation awarded by the company, directly or indirectly, to members of the board of directors, the executive management and the advisory board. It also stipulates an annual disclosure to the public by annexing the compensation report to the financial statements. Items to be disclosed include fees, salaries, bonuses, profit sharing, services and benefits in kind. It must also be reviewed by an auditor.

The policy objective of disclosure is to provide information that would not otherwise be obtainable and on which informed decisions can be made. In practice, however, shareholders rarely read all the information presented to them, be it before deciding to invest in a company or when participating in a general meeting. Thus the primary effect of disclosure is to guide the decisions made by insiders, knowing in advance that they will have to reveal the information later.

**THE CASE OF SWITZERLAND**

<table>
<thead>
<tr>
<th>Year</th>
<th>Economy</th>
<th>Extent of shareholder rights index</th>
<th>Extent of ownership and control index</th>
<th>Extent of corporate transparency index</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015/16</td>
<td>Belarus</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Brunei Darussalam</td>
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<tr>
<td></td>
<td>Egypt, Arab Rep.</td>
<td>✔</td>
<td>✔</td>
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<td></td>
<td>Fiji</td>
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<td></td>
<td>Georgia</td>
<td>✔</td>
<td>✔</td>
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<td></td>
<td>Kazakhstan</td>
<td></td>
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<tr>
<td></td>
<td>Macedonia, FYR</td>
<td>✔</td>
<td>✔</td>
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<td>Mauritania</td>
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<td></td>
<td>Morocco</td>
<td></td>
<td>✔</td>
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<td></td>
<td>Saudi Arabia</td>
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<td>✔</td>
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<tr>
<td></td>
<td>United Arab Emirates</td>
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<td>Uzbekistan</td>
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<td></td>
<td>Vanuatu</td>
<td>✔</td>
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<tr>
<td></td>
<td>Vietnam</td>
<td></td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>2014/15</td>
<td>Egypt, Arab Rep.</td>
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<tr>
<td></td>
<td>Kazakhstan</td>
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<tr>
<td></td>
<td>Lithuania</td>
<td>✔</td>
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<td></td>
<td>Rwanda</td>
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<tr>
<td></td>
<td>Spain</td>
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<tr>
<td></td>
<td>United Arab Emirates</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013/14</td>
<td>Dominican Republic</td>
<td>✔</td>
<td></td>
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<tr>
<td></td>
<td>Ecuador</td>
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<tr>
<td></td>
<td>India</td>
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<td></td>
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<tr>
<td></td>
<td>Korea, Rep.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Switzerland</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Source: Doing Business database.
The beneficiary of the disclosure also matters. When the intended beneficiary is broad—that is, the public—the primary concern is the reputation and the image of the company. By contrast, where the disclosure is targeted—to the regulator or stock exchange authority—the concern is compliance. In this case, the goal is to be accurate and avoid sanctions by the authorities. These two options have practical policy implications: in particular cases, disclosure to the regulator is preferable. Complex financial and legal submissions, for example, are effective only if reviewed by experts. In other cases, companies should disclose to the public or shareholders at large rather than to the regulator. For regulatory agencies, the only concern would be that the figures are accurate and provide a complete picture of all benefits and incentives in accordance with applicable accounting standards. Shareholders, on the other hand, would decide on the somewhat subjective concept of excessive compensation. Switzerland, therefore, opted for public disclosure. The reform was captured in the 2015 edition of the Doing Business report (figure 7.3).

In addition to disclosure, Switzerland also mandated shareholder vote. The so-called “say on pay” mechanism of the ordinance applies to proposed compensation, which must be put to a vote and approved by the majority of shareholders to be valid. Unequivocally this results in increased shareholder control. But once again, and similar to disclosure, giving shareholders more say is a means rather than an end. The primary goal is to affect firm behavior. When company insiders know in advance that a decision will be subject to shareholder approval, this changes the nature and content of the decision itself.

Two years after the ordinance entered into force practitioners reported that all listed corporations had implemented the new rules without serious issues. So far, shareholders have approved all compensation proposals, which is unsurprising: firms have adjusted their behavior in anticipation to avoid disapproval.34 Asking shareholders more interesting questions—such as whether or not they agree with the remuneration of their directors and executives—reaps other benefits. For one, it increases the likelihood that shareholders will actively exercise their voting rights at general meetings. According to a survey of 107 investors, the exercise of voting rights in Switzerland increased from 62.9% to 86.1% after the ordinance passed. And 13.9% of investors who actively used their voting rights did so only on compensation.35 At the same time, vote outcomes have been mostly positive. Swiss companies continue to operate normally, managers have not found themselves hindered (contrary to initial concerns) and shareholders have been broadly supportive of the proposals put before them. What has changed following the empowerment of shareholders is the increase in accountability and the sense of having a say in major decisions. This has in turn generated trust and confidence, a crucial commodity for the Swiss Exchange or any other capital market.36

**FIGURE 7.3** Switzerland strengthened shareholder governance as measured by Doing Business

![Index score (0–10)](image)

<table>
<thead>
<tr>
<th>Index score (0–10)</th>
<th>Extent of ownership and control index</th>
<th>Extent of corporate transparency index</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>7</td>
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<td>1</td>
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<tr>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: Doing Business database.

**THE CASE OF INDIA**

India’s experience was unique to that of Switzerland. But the goals—trust and economic growth—were similar. Rather than a popular initiative focused on managerial compensation—albeit a central issue with multiple ramifications—the government of India took on the task of completely overhauling its Companies Act, its primary set of rules governing how businesses are incorporated, owned, managed, rehabilitated or closed when insolvent, and challenged in court. The previous version dated from 1956.

Ambitious and comprehensive legislation takes time. India’s lawmaking process started in 200437 and was followed by years of drafting, redrafting and consultations on the bill. It was finally submitted to parliament in 2012 and passed by the upper house on August 8, 2013. It received the assent of the president shortly after, on August 29. The date of entry into force is less straightforward. India follows an unusual system whereby provisions are not applicable until the Ministry of Corporate Affairs notifies each section; notification typically happens in waves. The first took place in September 2013 with the notification of 98 sections followed by another series of notifications in April 2014. As of June 2016, 282 of the 470 total sections
were notified and eight provisions of the 1956 Act remain applicable. Despite this piecemeal introduction, it has paid off both in economic terms and in India’s performance in Doing Business: India’s score increased in three of the six indices of the protecting minority investors indicator set (Figure 7.4).38

Four objectives guided the drafting of the reformed Companies Act. First, administrative requirements weighing on companies had to be simplified. Second, more transparency had to be instilled in their operations and decision-making structures. Third, the competitiveness of Indian firms had to be increased by bringing them in line with global standards, particularly regarding accountability and corporate governance practices. Lastly, it had to advance all of the above while ensuring that businesses contribute more to shared prosperity in an economy where demographics and income inequality pose stark challenges.

To simplify administrative requirements the minimum paid-in capital was abolished. To instill greater transparency the Act increased disclosure requirements, particularly regarding related-party transactions.39 To bring Indian firms in line with global standards the Act added requirements to disclose managerial compensation and to have one-third independent directors and at least one woman on the board.40 The fourth objective, however—contributing to greater shared prosperity—garnered the most attention by aspiring that all companies allocate 2% of their net profits to socially responsible projects. In effect, India became the first economy in the world with a quantified and legislated corporate social responsibility (CSR) requirement. However, it is enforceable on a “comply or explain” basis and goes beyond the scope of areas measured by Doing Business.41 In practice, this means that companies who fail to meet the target must simply state so in their annual report and provide a justification. The Act provides a statutory definition of CSR as activities relating to hunger and poverty eradication, education, women empowerment, and health and environmental sustainability, among others.42

Company regulation is an ongoing process. Since the enactment of the Companies Act, 2013, the Ministry of Corporate Affairs has issued clarifications, notifications and circulars on a regular basis to address ambiguities in the law. Most notably, two sets of amendments were released in August 2014 and in May 2015, highlighting the Indian government’s ongoing commitment to reform. On June 4, 2015, it set up a committee tasked with identifying and recommending further amendments to the Act and with centralizing recommendations and concerns from private sector stakeholders and regulatory agencies.43 The case of India serves as a reminder of the time it takes and the challenges inherent to a holistic legislative overhaul. Piecemeal fixes can be a time- and cost-effective approach, but only a full-fledged legislative reform gives policy makers the opportunity to innovate and sends a strong signal to the business community.

CONCLUSION

Achieving sound corporate governance is not a simple task. It is a specialized and technical area of regulation. Its impact is not as immediate as, for example, facilitating business incorporation or streamlining tax compliance. But thanks to the analytical tools provided by the law and economics approach, research shows that gains for the economy are tangible. At the outset, it increases investor confidence. With easier access to finance, companies can grow and, in so doing, pay more taxes and employ more workers. It is also shown to increase the returns on equity, efficiency of investment allocation and to decrease the cost of capital.

![Figure 7.4: India’s Companies Act 2013 made strides in three indices](source: Doing Business database.)
The growing body of research on achieving sound corporate governance is also having an impact. Lessons learned from other economies adopting these practices and constant new research—including those using Doing Business data—confirm their economic benefit. Although performance on this indicator set is very highly correlated with the stage of economic development, policy makers in developing economies now have a clearer path to introduce effective corporate governance and maximize the potential of their firms.

The majority of the 54 economies that made strides in minority investor protection in the past three years are the ones that have the furthest to go: 44 of them are low- or middle-income economies. To contribute to this effort, Doing Business has doubled the areas of corporate governance included in the protecting minority investors indicator set and expanded it to include regulatory frameworks that are relevant for small and medium-size enterprises. The immediate result is that more strengths, weaknesses and therefore potential improvements can be identified from its annual findings. In addition, researchers, lawyers and policy makers now have a more comprehensive baseline when working toward introducing sounder corporate governance practices.

NOTES

This case study was written by Nadine Abi Chakra, Varun Eknath, Albina Gasanbekova and Hervé Kaddoura.

1. Legal risk refers to the risk of loss arising from insufficient, improperly applied or unfavorable legislation and the resulting lawsuits.
3. A corporate governance reform is a legislative or regulatory change that increases the level of protection of minority investors as measured by the Doing Business protecting minority investors indicators. See the data notes for more details.
7. OECD 2015.
10. The OECD summarizes corporate governance as a set of relationships between a company’s management, its board, its shareholders and other stakeholders. Corporate governance also provides the structure through which the objectives of the company are set, and the means of attaining those objectives and monitoring performance are determined.
11. For a discussion on the importance of effective enforcement see Okpara 2011.
18. Ates and others 2014; Lan and others 2015; Liljebom and others 2015.
19. Legal certainty may be defined as the consistent application of a rule—the same facts invariably resulting in the same clear, definite and binding decisions.
22. See “Going beyond related-party transactions” in Doing Business 2015. See also Black and others 2010; Cremers and Ferrell 2014; Dharmapala and Khanna 2013; McLean and others 2012; Lima and Zoratto 2013; Chen and others 2011; Malhotra and others 2013; Guo and Masulis 2013; Lang and others 2012; Martynova and Renneboog 2011.
23. The data for market capitalization as a percentage of GDP are from Bloomberg. The market capitalization figures are calculated from “all shares outstanding.” The data do not include exchange traded funds (ETFs) and American depository receipts (ADRs) as they do not directly represent companies. They include only actively traded, primary securities on national exchanges to avoid double counting. Therefore the values will be significantly lower than market capitalization values of an economy’s exchanges from other sources. Bloomberg standardizes the figures by dividing market capitalization by GDP to be able to make comparisons among economies. See also Pagano and Volpin 2006; Ali and Aamir 2014.
26. Core and others 1999, for example, find that firms with weaker governance structures have greater agency problems, that CEOs at firms with greater agency problems receive greater compensation and that firms with greater agency problems perform worse.
27. Barthold and others 2014.
Taxes are important to the proper functioning of an economy. They are the main source of federal, state and local government revenues used to fund health care, education, public transport, unemployment benefits and pensions, among others. While the size of the tax cost imposed on businesses has implications for their ability to invest and grow, the efficiency of the tax administration system is also critical for businesses.\(^1\)

A low cost of tax compliance and efficient tax-related procedures are advantageous for firms. Overly complicated tax systems are associated with high levels of tax evasion, large informal sectors, more corruption and less investment.\(^2\) Tax compliance systems should be designed so as not to discourage businesses from participating in the formal economy.

Modern tax systems seek to optimize tax collections while minimizing administrative and taxpayer compliance costs. The most cost-effective tax collection systems are those that encourage the vast majority of taxpayers to meet their tax obligations voluntarily, thereby allowing tax officials to concentrate their efforts on non-compliant taxpayers and other services provided by tax administrations.\(^3\)

Taxpayers are more likely to comply voluntarily when a tax administration has established a transparent system that is regarded by taxpayers as being honest and fair.

Total tax compliance costs include all major transactions that generate external costs to the taxpayer. Up until Doing Business 2016, the paying taxes indicator set measured only the cost of complying with tax obligations up until the filing of tax returns and the payment of taxes due. However, filing the tax return with the tax authority does not imply agreement with the final tax liability. Postfiling processes—such as claiming a value added tax (VAT) refund, undergoing a tax audit or appealing a tax assessment—can be the most challenging interactions that a business has with a tax authority.

Doing Business 2017 expands the paying taxes indicators to include a new measure on postfiling.

Doing Business data shows that OECD high-income economies process VAT refunds the most efficiently with an average of 14.4 weeks to reimburse the VAT refund. Economies in Europe and Central Asia also perform well with an average refund time of 16 weeks.

On average, businesses spend six hours correcting an error in an income tax return and preparing any additional documents, submitting the files and making additional payment. Even following immediate voluntary notification by the taxpayer, in 74 economies an error in the income tax return is likely to trigger an audit. In 38 economies this error will lead to a comprehensive audit of the tax return.

OECD high-income economies as well as Europe and Central Asia economies have the easiest and simplest processes in place to correct a minor mistake in the corporate income tax return.

An internal administrative review process should be based on a transparent legal framework. This process should be independent and resolve disputes in a timely manner.

VAT REFUNDS

The VAT refund is an integral component of a modern VAT system. In principle, the statutory incidence of VAT is on the final consumer, not on businesses. According to tax policy guidelines set out by the Organisation for Economic Co-operation and Development (OECD) a value added tax refund needs to be paid within a specified period after the taxpayer completes the final VAT return.
added tax system should be neutral and efficient. Some businesses will incur more VAT on their purchases than they collect on their taxable sales in a given tax period and therefore should be entitled to claim the difference from the tax authorities. When businesses incur VAT which is not refunded at all—or reclaimed with delays and large compliance costs—then the principles of neutrality and efficiency are undermined. This alters the nature of VAT by effectively making it a tax on production. Any tax that cannot be recovered by the business could have a distortionary effect on market prices and competition and consequently constrain economic growth.

Refund processes can be a major weakness of VAT systems. This was the finding of a study that examined the VAT administration refund mechanism in 36 economies around the world. Even in economies where refund procedures are in place, businesses often find the complexity of the process challenging. The study examined the tax authorities’ treatment of excess VAT credits, the size of refund claims, the procedures followed by refund claimants and the time needed for the tax authorities to process refunds. The results showed that statutory time limits for making refunds are crucial but often not applied in practice.

Most VAT systems allow credit to be carried-forward for a specific period of time and offset against future net liabilities to reduce the number of refunds processed. The rationale is that excess VAT credits in one tax period would be followed by periods when net liabilities would absorb the credit brought forward, especially for businesses producing and selling in the domestic market. A refund is paid only if an amount of excess credit remains to be recovered by the taxpayer at the end of the carry-forward period. Some systems also allow a VAT credit in a given tax period to be offset against other current tax liabilities such as income tax. While the option of carry-forward is allowed in most VAT systems, it is good practice for economies to put in place an adequate VAT refund system. Because considerable differences in the efficiency of processing VAT cash refunds exist between economies, the paying taxes indicators focus on assessing VAT refund systems.

The IMF’s Tax Administration Diagnostic Assessment Tool (TADAT) provides an integrated monitoring framework to measure the performance of an economy’s tax administration system across different functions, including the adequacy of its VAT refund system. It does this by measuring the time taken to pay (or offset) refunds.

Like any tax, VAT is prone to fraud and its refund mechanism may be open to abuse by taxpayers. Delays in processing refunds, therefore, may be the result of concerns over potential fraud. Even when claims reach the finance division responsible for approving them and making payment, there can be delays in transmission. Additional procedural checks at this stage—prompted by a fear of the system being abused—are common.

In some economies a claim for a VAT refund can automatically trigger a costly audit, undermining the overall effectiveness of the system. Effective audit programs and VAT refund payment systems are inextricably linked. Tax audits (direct and indirect) vary in their scope and complexity, ranging from a full audit—which typically entails a comprehensive examination of all information relevant to the calculation of a taxpayer’s tax liability in a given period—to a limited scope audit that is restricted to specific issues on the tax return or a single issue audit that is limited to one item.

The transactions that lead to substantial VAT refund claims typically include exports, capital expenses, extraordinary losses and startup operations. Through its paying taxes indicators, Doing Business measures the efficiency of VAT refunds by analyzing the case of capital expenses.

Compliance with VAT refunds

In principle, when input VAT exceeds output VAT the amount should be paid as a refund to a registered business within the time period stipulated in the legislation. In practice, however, only 93 of the economies covered by Doing Business allow for a VAT cash refund in this scenario. Some economies restrict the right to receive an immediate cash refund to specific types of taxpayers such as exporters, embassies and non-profit organizations. This is the case in 43 economies including Belarus, Bolivia, Colombia, the Dominican Republic, Ecuador, Kazakhstan, Kenya, Mali and the Philippines. In Ecuador VAT refunds are limited to exporters, embassies, diplomatic missions, some specific non-government entities and international cargo companies. In Armenia cash refunds are only allowed when zero-rated VAT transactions (primarily exports) exceed 20% of all transactions.

In some economies businesses are only allowed to claim a cash refund after rolling over the excess credit for a specified period of time (for example, four months). The net VAT balance is refunded to the business only when this period ends. This is the case in 21 economies included in Doing Business. In Albania, Azerbaijan, Cambodia, The Gambia, Lesotho, Malawi and St. Lucia, businesses must carry...
forward the excess input VAT for three months before a cash refund can be given. In other economies—typically those with a weaker administrative or financial capacity to handle cash refunds—the legislation may not permit refunds outright. Instead, tax authorities require businesses to carry forward the claim and offset the excess amount against future output VAT. This is the case in Grenada, Guinea-Bissau, Sudan and República Bolivariana de Venezuela. In these two groups of economies it is common to make exceptions for exporters in relation to domestic supply. Twenty-eight economies do not levy VAT.

In 68 of the 93 economies that allow for VAT cash refunds (as in the Doing Business case scenario) the legal framework includes a time limit to repay the VAT refund starting from the moment the refund was requested. These time limits are always applied in practice in only 29 economies (21 of these economies are high-income economies). In only 28 of the 93 economies, a claim for a VAT refund does not ordinarily lead to an audit being conducted.\(^{13}\)

In 46 economies the VAT refund due is calculated and requested within the standard VAT return, which is submitted for each accounting period and without additional work. The main purpose of filing a VAT return is to provide a summary of the output and input VAT activities that result in the net VAT payable or due (as credit or refund). For these economies the compliance time to prepare and request a VAT refund is minimal because it simply requires ticking a box. Twenty-one of these economies are OECD high-income economies. Furthermore, eight of the 14 economies where taxpayers will not face an audit—and therefore will not spend additional time complying with the requirements of the auditor—are OECD high-income economies. This partly explains the average low compliance time in the region (figure 8.1).

In Germany, the Republic of Korea and the Netherlands, taxpayers request a VAT refund by simply checking a box on the standard VAT return. Taxpayers do not need to submit any additional documents to substantiate the claim and it is unlikely that this specific case study scenario of a domestic capital purchase would trigger an audit. In all three economies, the standard VAT return is submitted electronically.

However, some economies require businesses to file a separate application, letter or form for a VAT refund or to complete a specific section in the VAT return as well as to prepare some additional documentation to substantiate the claim (for example, the contract with the supplier of the machine). This is the case in Azerbaijan, Bangladesh, Costa Rica, Cyprus, Mexico, Senegal, St. Lucia and Sweden, among others. In these economies businesses spend on average 5.2 hours gathering the required information, calculating the claim and preparing the refund application and other documentation before submitting them to the relevant authority.

The requirements in these cases vary from simply completing a specific section of the standard VAT return to submitting a specific refund application. In Switzerland, for example, taxpayers would need to complete a section of the VAT return. It takes taxpayers in Switzerland 1.5 hours to gather the necessary information from internal sources and to complete the relevant section. The VAT return is submitted electronically. In Moldova, however, taxpayers must submit a specific VAT refund form and it is highly likely that a field audit would be triggered by the refund request.

**Completing a VAT refund process**

A request for a VAT cash refund is likely to trigger an audit in 65 economies covered by Doing Business. As a general rule the refunds are paid upon completion of the audit and not at the end of the statutory period. This adds time and costs for businesses to comply with auditor requests and the payment of the cash refund is further delayed. Businesses in these economies spend on average 14.7 hours complying with the requirements of the auditor in terms of document preparation, engage in several rounds of interactions with the auditor that last on average 7.9 weeks and wait an additional 5.6 weeks until the final audit decision is made. Of the 65 economies, businesses are likely to undergo a field audit in 34, a correspondence audit in 22 and an office audit in nine. Businesses subjected to a field audit would spend on average an additional...
7.7 hours complying with the auditor’s requirements compared to businesses subjected to a correspondence audit.

In Canada, Denmark, Estonia and Norway the request for a VAT refund is likely to trigger a correspondence audit, which requires less interaction with the auditor and less paperwork. By contrast, in most of the economies in Sub-Saharan Africa where an audit is likely to take place, taxpayers are exposed to a field audit in which the auditor visits the premises of the taxpayer. This is the case in Botswana, The Gambia, Malawi, Niger, Zambia and Zimbabwe.

The OECD high-income economies process VAT refunds most efficiently with an average of 14.4 weeks to reimburse a VAT refund (including some economies where an audit is likely to be conducted). Economies in Europe and Central Asia also perform well with an average refund processing time of 16 weeks (figure 8.2). This implies that those economies provide refunds in a manner that is less likely to expose businesses to unnecessary administrative costs and detrimental cash flow impacts.

From the moment a taxpayer submits a VAT refund request in Austria, it takes only one week for the tax authority to issue a refund. And it is unlikely that the request would trigger an audit. The refund is processed electronically through online banking. In Estonia, despite the fact that the claim for a VAT refund per the case scenario is highly likely to trigger a correspondence audit, the process is efficient. The VAT refund is reimbursed in 1.7 weeks on average assuming the refund is approved. This includes the time spent by the taxpayer engaging with the auditor and the time waiting until the final tax assessment is issued.

The experience in economies in other regions is less favorable. Obtaining a VAT refund in Latin America and the Caribbean takes on average 35 weeks. In the Middle East and North Africa and Sub-Saharan Africa it takes on average 28.8 and 27.5 weeks, respectively, to obtain a VAT refund. The sample for Latin America and the Caribbean includes only nine economies (the other economies do not allow for VAT cash refund per the case study scenario). The Middle East and North Africa sample consists of only six economies as most economies in the region do not levy any type of consumption tax. However, in Sub-Saharan Africa the story is different: the refund waiting time is longer because in most of the economies in the region where cash refund is allowed, taxpayers are likely to be audited before the refund is approved.

The efficiency of the VAT refund process in OECD high-income economies is partly attributable to the commitment of all OECD members to apply the OECD International VAT Guidelines. Furthermore, the binding nature of the 2010 European Union (EU) Directives on VAT implementation ensures that refunds are processed fully and efficiently.

A major determinant of the ability of revenue authorities to provide good standards of service for the repayment of VAT refund claims is the availability and use of modern electronic services (such as electronic filing, pre-population and direct crediting of VAT refunds). VAT refunds are paid electronically in only 30 economies covered by Doing Business. Delays in VAT refund payments may arise if, for example, the finance division that is tasked with checking and approving the claim is forced to make additional procedural checks to guard against fraud before payment is made.

Laws provide for interest to be paid on late VAT refunds by the tax authorities in 70 economies covered by Doing Business. However, the payment of interest is always applied in practice in only 32 economies. The prescribed interest period typically begins when the tax authority fails to refund VAT within the prescribed statutory deadlines.

There is a positive correlation between the time to comply with a VAT refund process and the time to comply with filing the standard VAT return and payment of VAT liabilities (figure 8.3). This suggests that spending time up front to comply with the requirements of the tax system does not necessarily translate into an easier time postfiling. Indeed, in economies with tax systems that are more difficult to comply with when filing taxes, the entire process is more likely to be challenging.
A tax audit is one of the most sensitive interactions between a taxpayer and a tax authority. Although tax audits have a role in ensuring tax compliance, they impose a burden on the taxpayer to a greater or lesser extent depending on the number and type of interactions (field visit by the auditor or office visit by the taxpayer) and the level of documentation requested by the auditor. It is therefore essential that the right legal framework is in place to ensure integrity in the way tax authorities carry out audits. Additionally, an audit must have defined start and end points and the taxpayer must be notified once the audit process is completed.

A risk-based approach takes into consideration different aspects of a business such as historical compliance, industry characteristics, debt-credit ratios for VAT-registered businesses and firm size. Characteristics of firms are also used to better assess which businesses are most prone to tax evasion. One study showed that data-mining techniques for auditing, regardless of the technique, captured more noncompliant taxpayers than random audits. In a risk-based approach the exact criteria used to capture noncompliant firms, however, should be concealed to prevent taxpayers from purposefully planning how to avoid detection and to allow for a degree of uncertainty to drive voluntary compliance. Most economies have risk assessment systems in place to select companies for tax audits and the basis on which these companies are selected is not disclosed. Despite being a post-filing procedure, audit strategies set by tax authorities can have a fundamental impact on the way businesses file and pay taxes.

To analyze audits of direct taxes the Doing Business case study scenario was expanded to assume that TaxpayerCo. made a simple error in the calculation of its income tax liability, leading to an incorrect corporate income tax return and consequently an underpayment of income tax liability due. TaxpayerCo. discovered the error and voluntarily notified the tax authority. In all economies that levy corporate income tax—not all—taxpayers can notify the authorities of the error, submit an amended return and any additional documentation and pay the difference immediately. On average, businesses spend six hours preparing the amended return and any additional documents, submitting the files and making payment. In 74 economies—even following immediate notification by the taxpayer—the error in the income tax return is likely to trigger an audit. On average taxpayers will spend 24.7 hours complying with the requirements of the auditor, spend 10.6 weeks going through several rounds of interactions with the auditor and wait 6.7 weeks for the auditor to issue the final decision on the tax assessment.

In 25 OECD high-income economies, taxpayers need only to submit an amended return and, in some cases, additional documentation and pay the difference in balance of tax due. In Latin America and the Caribbean taxpayers suffer the most from a lengthy process to correct a minor mistake in an income tax return. In most cases this process will involve an audit imposing a waiting time on taxpayers until the final assessment is issued (figure 8.5).

In Portugal and Estonia, taxpayers must only submit an amended tax return and make the necessary payment at the moment of submission. It takes taxpayers half an hour to prepare the amended return and another half an hour to submit it electronically. The payment is also made online. In these economies, the case study scenario of a minor mistake in the income tax return is not likely to
Paying Taxes

trigger an audit. In New Zealand, taxpayers must submit a specific voluntary disclosure form—which takes on average three hours to prepare—with the submission and payment being made electronically. Similarly, taxpayers are unlikely to be exposed to an audit in the case measured in Doing Business.

In Brazil, Honduras, Nicaragua and Peru the fact that taxpayers erroneously declared and underpaid their income tax liability would likely trigger a field audit by the tax authorities. In Peru taxpayers will undergo a comprehensive audit of all items on the income tax return, requiring interaction with the auditor for around six weeks and waiting an additional seven weeks for the auditor to issue the final assessment.

**Administrative Tax Appeals**

Tax disputes are common in any tax system. Disputes between a tax authority and taxpayers must be resolved in a fair, timely and efficient manner.\(^{(23)}\) In the first instance, taxpayers should attempt to settle their final tax assessment with the tax authority. If a dispute continues, however, taxpayers should have the opportunity—within a prescribed period of time—to seek resolution from a special administrative appeal board or department. The creation of boards of appeal within tax administrations is considered by the OECD as an effective tool for addressing and resolving complaints and avoiding the overburdening of the courts.\(^{(20)}\) A serious backlog of tax cases threatens revenue collection.\(^{(21)}\)

Resolving tax disputes in a way that is independent, fast and fair is important. The IMF’s TADAT tool also assesses the adequacy of tax dispute resolution by looking at whether an appropriately graduated mechanism of administrative and judicial review is available, whether the administrative review mechanism is independent of the audit process and whether information on the appeal process is published. An internal administrative review process must safeguard a taxpayer’s right to challenge an assessment resulting from a tax audit. The process should be based on a legal framework that is known by taxpayers, is easily accessible and independent and resolves disputed matters in a timely manner. Internal reviews can be achieved through a separate appeals division, a senior official that does not directly supervise the original case auditor or a new auditor with no previous knowledge of the case. Operational manuals should be developed, decisions should be published and annual appeal statistics should be reported—helping to create a positive public perception of the tax administration’s integrity.

Through the paying taxes indicators, Doing Business conducts research on what kind of first level administrative appeal process exists in an economy following a corporate income tax audit where a taxpayer disagrees with the tax authority’s final decision. The data on first level administrative appeal process are not included in the distance to frontier score for paying taxes. In 123 economies the first level administrative appeal authority is an independent department within the tax office (figure 8.6).
Appeal guidelines are available to taxpayers either through a printed publication, online or in person at the tax office in the 171 of the 180 economies covered by Doing Business that levy corporate income tax. In 102 economies the legal framework imposes timeframes on the taxpayer and the appeal authority for each stage of the appeal process. In only 47 economies, however, respondents reported that the time limits are consistently applied in practice.

In Chile a taxpayer can appeal to the regional director of the Chilean Internal Revenue Service (SII) following a corporate income tax audit where the taxpayer disagrees with the tax authority’s final decision. Guidelines on how to appeal the decision and the timeframe to conclude the process are easily accessible to the public through the SII’s website. By law, the Chilean Tax Code sets a time limit of 50 days for the SII’s regional director to issue a decision on the appeal. This time limit is applied in practice.

CONCLUSION

Little is known about the tax compliance cost of postfiling procedures. This analysis is therefore intended to generate new research to better understand firms’ decisions and the dynamics in developing economies, to highlight which processes and practices work—and which do not—and, eventually, to induce governments to reform and enhance their postfiling processes.

The new indicator on the adequacy of postfiling processes provides policy makers who are dealing with the challenge of designing an optimal tax system with a broader dataset that allows them to benchmark their economy against others on the administrative burden of complying with postfiling procedures.

NOTES

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1. For more on the World Bank Enterprise Surveys, see the website at http://www.enterprisesurveys.org.
2. Djankov and others 2010.
3. IMF 2015a.
4. OECD 2014c.
5. OECD 2014c.
7. For more information on the Tax Administration Diagnostic Assessment Tool (TADAT), see the website at http://www.tadat.org/.
11. The key point for exports is that the supplies are taxable but zero-rated as they are taxed at the destination economy leading to input VAT being offset against zero output VAT. The notion of claiming a VAT refund immediately for substantial capital expenditure in an accounting period is that the recoverable amount of input VAT in that period could be large and result in excess input tax credit or a refund claim for the period. Extraordinary events—such as fire, flood or seasonal trends—may lower sales activities over periods of time or even halt sales while the business continues filing regular VAT returns. Lastly, new businesses would register for VAT based on the sales that they expect to make even before they start making actual sales. This means that new businesses could offset input VAT on start-up expenses against a minimal output VAT, resulting in a VAT refund claim.
12. These economies are Albania; Antigua and Barbuda; Azerbaijan; Bulgaria; Cambodia; Dominica; The Gambia; Guyana; Jordan; Kiribati; Lesotho; Malawi; Nepal; Pakistan; Seychelles; St. Kitts and Nevis; St. Lucia; Tanzania; Tonga; Tunisia; and Vietnam.
13. These economies are Austria; Barbados; Belize; Costa Rica; Croatia; Cyprus; Ethiopia; Finland; France; Germany; the Islamic Republic of Iran; Ireland; the Republic of Korea; Latvia; Lithuania; Malta; Netherlands; New Zealand; Papua New Guinea; Portugal; Samoa; Seychelles; Slovenia; Spain; Sweden; Switzerland; Taiwan, China; and the Republic of Yemen.
Technology gains in trade facilitation

THE ADVANCEMENT OF SINGLE WINDOWS

International trade has evolved into a complex network of actors, both within and outside sovereign borders. Trade processes involve not only government authorities and private firms but also customs brokers, commercial banks, vendors, insurance companies and freight forwarders. For example, at least nine institutions play a role in the process of exporting coffee from Colombia to the United States. First, the National Institute of Food and Drug Monitoring issues a phytosanitary certificate, which ensures that the coffee meets current sanitary standards. The Colombia Coffee Growers Federation then issues a certificate that attests to the quality of the shipment. The Colombian Agricultural Institute then conducts a phytosanitary inspection while the antinarcotics police perform security inspections and customs clears the freight. The exporter must obtain a certificate of origin from the Colombian Chamber of Commerce to comply with the U.S.-Colombia Trade Promotion Agreement. And these are only the steps that must be completed in Colombia. Once the shipment of coffee reaches the United States, it has to go through clearance with the U.S. Customs and Border Protection, Food and Drug Administration and the U.S. Department of Agriculture. Remarkably, the Colombian example is a relatively simple one compared to most international trade processes.

- Increased national trade digitalization leads to efficiency gains for exporters and importers.
- Many single windows have a high level of sophistication and consist of complex networks of regulatory agencies and private actors. This is the case of the Ventanilla Única de Comercio Exterior (VUCE) in Colombia, which connects multiple public agencies and several private companies with exporters, importers, customs agents and brokers.
- Sweden was one of the first economies to introduce a national single window in 1989. Since then, the system has evolved from an export statistics platform to a comprehensive trade facilitation tool.
- Seaports maintain their competitive edge through the automation and modernization of port infrastructure.
- Economies that perform well on the trading across borders indicators also tend to have lower levels of corruption.
other trade-related interactions worldwide. To ensure effective coordination, Colombia developed a single window system for foreign trade—the Ventanilla Única de Comercio Exterior (VUCE)—in the early 2000s. The single window connects 21 public agencies and three private companies (that provide e-signature certificates and legal information) with importers, exporters, customs agents and brokers through an online platform that allows users to request approvals, authorizations and other certifications needed to import and export goods. In addition, tax identification and business registration records are available to the agencies integrated into the system.

In the early 1980s governments and international organizations recognized the need to facilitate the coordination of multiple trade actors to make cross-border trade more cost effective and time efficient. Trade processes gradually began to shift from physical to electronic platforms. One of the first attempts to create a trade electronic platform took place when the United Nations Conference on Trade and Development (UNCTAD) launched an automated customs data management system, the Automated System for Customs Data (ASYCUDA). Following a request from the Economic Community of West African States (ECOWAS) in 1981 for technical assistance to collect foreign trade statistics from its member states, UNCTAD developed customs software covering most foreign trade procedures. The focus of the ASYCUDA software is trade facilitation, customs clearance, fiscal control and operational capacity, allowing for the replicability and adaptability of its software in a cost-effective manner. The program, which is implemented free of charge by UNCTAD, currently is installed or being installed in over 90 economies worldwide.

In most cases, ASYCUDA yields positive results for all parties involved. Traders benefit from faster customs formalities and governments report an increase in customs revenue. As a result of the introduction of ASYCUDA in the Philippines in 1996 and Sri Lanka in 1994, in the first year of implementation customs revenues increased by more than $215 million and $100 million, respectively. Similarly, St. Lucia has benefited from the implementation of ASYCUDA. Customs brokers no longer need to visit multiple customs clearance officers or government agencies to verify and obtain documents as most of the paperwork is verified automatically. By enabling the rapid electronic submission of documents, the overall customs clearance process in St. Lucia has been reduced by 24 hours since implementation. However, not all of the economies that adopted the ASYCUDA program managed to achieve the desired results. The Comoros, for example, introduced the ASYCUDA software in 2010 but it was not used widely by local traders. Electricity cuts and shortages made the system unreliable during regular business hours; the private sector did not experience the expected positive impact from the implementation of the program.

As trade chains have become increasingly globalized, the demand for the coordination of diverse trade actors has continued to rise. Many economies have needed to move beyond relatively simple customs electronic data interchange systems, such as ASYCUDA, and toward a more inclusive and sophisticated platform: the single window. The importance of the adoption and integration of single windows in trade has been highlighted by the Bali Agreement of the World Trade Organization (WTO), particularly in the context of developing economies.10

The level of national digitalization, specifically regarding cross-border trade, has been shown to have a significant impact on economic growth. Specifically, studies have found that an increase of an economy’s digitalization score by just 10% leads to a 0.75% growth in GDP. Research also demonstrates the positive impact of single window systems on increasing the number of exporting firms and on improving international trade flows. In Costa Rica, for example, the implementation of streamlined procedures to process export permits through a single window resulted in an increase in the number of exporters by 22.4%. Moreover, Doing Business data show that traders in economies with fully operational electronic systems (that allow for export and import customs declarations to be submitted and processed online) spend considerably less time on customs clearance (figure 9.1). Recognizing the positive impact of digitalization, governments and international institutions worldwide have dedicated significant resources to modernizing border compliance processes.

**Challenges of establishing single windows**

In 2005, the United Nations Centre for Trade Facilitation and Electronic Business defined a single window as a platform that enables trade stakeholders to submit documentation and other relevant information through a single point of entry in a standardized way in order to complete export, import and transit procedures. However, over the past decade, the concept of a single window has expanded to include the entire evolution of electronic systems, including customs automation, trade point portals, electronic data interchange techniques, agency-specific single windows, national single windows, and even regional and global single windows (figure 9.2). Due to the multifaceted nature of electronic interchange systems, national governments and international development organizations face numerous obstacles in coordinating the implementation of comprehensive single window platforms. Furthermore, cross-country comparability is complicated by the fact that different economies choose to introduce single windows of varying complexity. Mauritius’ single window, TradeNet, is mostly focused on customs procedures and currently the system only includes the Mauritius Revenue Authority,
the Mauritius Port Authority and the Mauritius Chamber of Commerce and Industry. In Australia, by contrast, the Customs and Border Protection Service Integrated Cargo System incorporates a broad range of government agencies. The Australian single window connects customs authorities, quarantine authorities and meat producers. These actors work closely throughout the production and trade processes, conducting sanitary inspections and issuing sanitary certificates.

Single windows may suffer from various institutional and regulatory limitations that stem from conflicting interests related to technical standards, data harmonization and information sharing. Border operations, especially those managed by customs authorities, are legislated at the national level. As such, governments and development organizations must first convince different political actors of the need to integrate and modernize trade operations. Moreover, because the information technology suppliers of the electronic systems are third parties with complex contractual relationships with governments, change can be slow. Beyond agreeing on the scope of work and bringing together different stakeholders, implementation of a single window can entail a number of organizational complexities. The cost may also vary depending on the parties involved and the level of integration.

**FIGURE 9.1** Trade digitalization leads to efficiency gains for both exporters and importers

![Bar chart showing average export and import border compliance times](chart1.png)

**Source:** Doing Business database.

**Note:** The relationship is significant at the 1% level after controlling for income per capita. The three categories are: only paper submission of customs declaration is possible; both paper and electronic submissions are in use; and only electronic submission is possible. The sample includes 165 economies.

**FIGURE 9.2** Some single windows have a high level of sophistication, encompassing complex networks of regulatory agencies and private actors

![Diagram showing a single window connecting various stakeholders](chart2.png)

**Source:** Doing Business database.
single window for exports in Guatemala, for example, was developed by the private sector for less than $1 million, with ongoing operational costs of $1.2 million per year. Users of the Guatemalan single window pay a fee for each transaction in addition to a flat monthly fee. Conversely, the single window in Malaysia, which covers both exports and imports, was established through a public-private partnership and cost about $3.5 million.21

One study shows that among 12 selected trade facilitation mechanisms, single windows generate one of the largest long-term cost savings despite having some of the highest setup and operating costs and an average implementation time of about four years.22 Despite the different uses and applications of single windows, the benefits outweigh the costs of developing a comprehensive framework integrating multiple trade actors. These benefits include improved revenue yields and the adoption of control risk management techniques for governments, as well as enhanced predictability, reduced costs and fewer delays for traders.23 As a result of implementing an electronic data interchange system in the Philippines, customs custody time was reduced to 4–6 hours for “green channel” shipments (from 6–8 days previously).24 Albania also significantly reduced the time spent in customs by adopting a digital risk-based border inspection process. Between 2007 and 2012, this process reduced the days goods spent in Albanian customs by 7% and boosted the value of imports also by 7%.25 The implementation of this electronic facility, based on ASYCUDA modules for risk management, was recognized as a positive reform in the Doing Business 2016 report.

The implementation of a single window in Singapore yielded positive results. Following a recession in the 1980s, Singapore’s government set up a high-level committee to improve economic competitiveness. One of the committee’s recommendations was to increase the use of information technology in trade. Singapore’s single window for trade, TradeNet, one of the first such systems put in place in the world, began operating in 1989 as an electronic data interchange system that allowed the computer-to-computer exchange of structured messages between the government and members of Singapore’s trading community.26 TradeNet now handles more than 30,000 declarations a day, processes 99% of permits in just 10 minutes and receives all monetary collections through interbank transactions.27 Regarding cost, trading firms report savings of between 25% and 30% in document processing.28

Sweden was also one of the first countries to introduce a national single window. The first steps toward the implementation of the Swedish single window were taken in 1989 with the development of the Customs Information System (CIS) by the Swedish customs authorities. During this initial stage, the CIS was an online platform that recorded export statistics electronically to the statistics bureau. The system gradually evolved from an export data exchange to a comprehensive single window that encompasses exports, imports and transit goods’ procedures. Currently, the Swedish single window connects customs not only to the statistics bureau but also to other important international trade actors.29 Clearing goods in Sweden is easy and straightforward. The trader or representative submits the customs declaration online; even though paper copies are still allowed, they are rarely used. Customs processes the relevant information and if a license or a permit from other agencies is required it is requested automatically through the single window.30 Even though the use of the online system is not compulsory, 94% of customs declarations are submitted electronically, and approximately 12,000 companies and 7,000 citizens use it.31 The platform operates 24 hours a day, seven days a week and is free of charge.

Over time single windows have moved beyond national boundaries, encompassing entire geographic regions. In synchronization with national single window efforts, electronically integrated regional systems are on the rise. The Association of South East Asian Nations (ASEAN)32 Single Window (ASW) initiative, which was adopted and endorsed during the Ninth ASEAN Summit in 2003, aims to integrate the national single windows of ASEAN countries by allowing the electronic exchange of customs information and expediting cargo clearance. The regional single window is expected to reduce the overall cost of trading by 8%, with the largest savings arising from a reduction in documentation dispatch costs.33 The implementation of the ASW is being carried out gradually; member states are currently in the process of implementing their respective domestic ratifications. A significant challenge has been the fact that most ASEAN member states have their own customs regimes and relevant legislation in place, which can be difficult to reconcile with new regional legislation.

Efforts toward electronic regional integration are also underway in Latin America and the Caribbean. The Inter-American Network of International Trade Single Windows (Red VUCE) initiative was launched in 2011 as a forum to promote cooperation and peer-to-peer learning among national single windows in Latin America and the Caribbean, with the goal of reducing the time and cost of trading in the region.34 During its fifth meeting in 2014, Red VUCE representatives agreed to launch a pilot project that will allow interoperability of single windows in the region with the primary objective of eliminating paper copies of documents and interconnecting the single windows of Chile, Colombia, Mexico and Peru, the four founding members of the Pacific Alliance, by 2016.35

Economies that trade through seaports maintain their competitive edge not only through the use of electronic services and single windows but also through the automation and modernization of port infrastructure (box 9.1).
BOX 9.1 Improving trade efficiency through port and customs automation

The ability of ports to ensure timely cargo transfers is a vital dimension of their competitiveness. Efficient ports are not only technologically advanced—using robots and automated container handling—but also employ digital platforms, such as port community systems, to ensure the smooth and reliable transfer of information between all members of the seaport network. Efficient ports generate many economic benefits, including increased trade volume, lower trade costs, and higher employment and foreign investment. Port quality impacts entire supply chains and even the economies of nearby cities.

Studies show the importance of port efficiency for trade facilitation and regional development. According to one study, port efficiency is a crucial determinant of shipping costs: improving port efficiency from the 25th to the 75th percentile reduces shipping costs by around 12%. Furthermore, reductions in inefficiencies associated with transport costs from the 25th to 75th percentile imply an increase in bilateral trade of around 25%. Another study, on the economic impact of the port cluster in Rotterdam, suggests that the value added of the port accounts for approximately 10% of regional GDP. The Le Havre/Rouen port cluster had an even higher share of regional GDP (21%). Going beyond port automation, data show that, on average, economies with full-time automated processing systems for customs agencies—as well as electronic data exchange platforms—take significantly less time to move exported goods compared to ones where full-time automation is not implemented (see figure). Port and customs automation make the exporting process more efficient. Moreover, data suggest that around-the-clock automated processing systems are a key factor for making border compliance more efficient.

Customs automation at ports/borders allows exporters to save time when dealing with trade logistics

![Average export border compliance time](image)

**Sources:** Doing Business database; OECD 2015 database.

**Note:** The sample consists of 75 economies. The relationship is significant at the 1% level after controlling for income per capita.

Automation improves reliability, predictability, safety and competitiveness of operations. Ports are land-intensive; automated cranes and vehicles in ports improve the productivity of stacking crane interchange zones, which allows for more efficient land allocation and use. Furthermore, modern automated machinery is fast, economical and low-maintenance and it helps to avoid collisions and other physical damage. Better technology and automation also improves worker safety. In April 2015 the Patrick terminal at Sydney’s Port Botany optimized the use of AutoStrad, a single piece of equipment that combines stacking and transportation capabilities without any human engagement. This technology has made the port safer, more predictable and efficient, ultimately benefiting both users and customers.

In the global trade logistics environment, where the number of containers is rapidly increasing due to higher international trade volumes, competition among ports to dominate the container market continues to intensify. Ports are complex constructions and changes are not easy to implement. Ports are communities composed of numerous players, both public and private. Usually port authorities and customs constitute the core of these communities. Other entities include shipping lines, freight forwarders, customs brokers, importers and exporters, all involved in conducting trade.
Pronounced. Recent studies on corruption on growth are even more governments, the negative effects of weak institutions and inefficient and corrupt practices. In economies remains highly vulnerable to fraudulent especially in developing economies, the area of trade. Intra-regional trade, in Africa. Corruption can alter natural and Monetary Community of Central trade flows within the Economic and constraints in an otherwise well-functioning system. The literature suggests that even when businesses pay bribes, they still face high time delays and experience greater capital costs.

In the realm of international trade, and particularly in customs clearance procedures, corruption can flourish because customs officials control something that firms greatly value—access to international markets. Research shows that customs officials are particularly prone to accepting bribes and are more likely to engage in corruption compared to other sectors of the economy. Import and export processes are equally affected by corruption. Customs officials can fraudulently overlook import regulations and exonerate goods from inspections while importing, or abuse their roles of gatekeepers during export procedures.

Doing Business data show that economies that perform well on the trading across borders indicators tend to have lower levels of corruption (figure 9.3). For example, there is a strong positive association between the economies’ distance to frontier score in the trading across borders indicators and their score in Transparency International’s Corruption Perceptions Index. Similarly, the distance to frontier score on the trading across borders indicators is strongly and negatively correlated with the percentage of firms that are expected to give gifts to obtain an import license. The distance to frontier score tends to be higher in economies where fewer firms need to offer a bribe to get things done. Performance on the trading across borders indicators is also strongly and significantly correlated with the Worldwide Governance Indicators’ rule of law and control of corruption variables.

Economies worldwide have spent decades trying to eradicate corruption in international trade, with varying levels of success. Many East African economies are signatories of the World Customs Organization (WCO) Arusha Declaration, which is a recognized focal tool of an effective approach to tackling corruption and increasing integrity in customs for WCO members. Nevertheless, corruption and dominance of non-official fees and charges remain an important challenge in the region. To enhance integrity in East African economies, Kenya, for example, created an anti-corruption commission tasked with implementing good practices proposed by the Revised Arusha Declaration and the WCO Integrity Development Guide and Compendium of Integrity Best Practices. The Arusha Declaration explicitly recognizes the automation of trade processes, including electronic data interchange, as powerful anti-corruption tools.

Increased trade digitalization, which minimizes human interactions, creates fewer opportunities for bribery and fraud. The Philippines successfully fought corruption in its customs services by adopting systems that limit in-person interactions and by imposing heavy penalties on corrupt officials. Its approach relied on the use of modern technology to reengineer the customs services operating environment.
As a result of the anti-corruption reforms, about 70% of imports to the Philippines are now processed through the “green channel” within just two hours.\textsuperscript{50} Similarly, single window systems—which limit the monopoly power of customs agents—can be implemented to deter corruption in customs services.\textsuperscript{51} The automation and digitalization of administrative systems largely eliminates the monopolistic power of customs officials.\textsuperscript{52} Similarly to the case of the Philippines, prior to 2003 the customs department as well as other administrations and agencies in Georgia faced a rampant corruption problem. A key step to tackling corruption in the Georgian customs was the introduction of a one-stop shop system that reduced face-to-face interactions between entrepreneurs and customs officials.\textsuperscript{53}

The introduction of computerized solutions for processing customs documents—and the general automation of customs clearance—leaves little to the discretion of customs officials, thereby reducing opportunities for corruption.\textsuperscript{54} However, despite myriad efforts to implement good practices, corruption is still prevalent in many customs departments in Sub-Saharan Africa. In economies where anti-corruption reforms have failed, customs officials are often torn between bureaucratic norms and the expectations of their networks and surroundings. In some African economies, a kinship-based social organization that combines moral obligation and attachment is strong, making corruption more present and acceptable.\textsuperscript{55}

Mozambique launched an extensive customs reform program in 1995 to modernize the customs department and tackle corruption. Customs operations did not have any substantial information technology support before the reform was implemented. Despite considerable progress, Mozambique still needs to develop further its existing information technology infrastructure to deal effectively with corruption and smuggling. Corruption is also a challenge in the customs administration in Uganda. The Uganda Revenue Authority has been implementing various solutions to fight corruption, such as requiring officials to declare their assets, increasing salaries and providing training on integrity.\textsuperscript{56} Uganda recently introduced a modernized version of the ASYCUDA World system, but its impact on fighting corruption remains to be seen.

\textbf{CONCLUSION}

Implementing a single window is not an easy undertaking. The complex process requires extensive cooperation and coordination among multiple players, and it can take several years for new electronic platforms to become fully operational and used by the majority of traders. However, the long-term benefits substantially outweigh the costs and the actual integration of single windows or similar systems can be done in phases. Most economies start with relatively simple electronic exchange solutions and progressively make systemic upgrades and expansions. Port automation and
modernization is an important milestone that economies can work toward to improve their competitiveness.

The integration of single windows into international trade processes and improved port automation can aid economies in combating corruption. Corruption remains a major problem in international trade. It perpetuates delays and inefficiencies, increases costs and ultimately has a negative impact on economic growth and development. Customs departments are especially prone to corruption, as customs officials often hold important decision-making powers in the international trade process. The digitalization of customs procedures is an efficient tool for tackling corruption; it is most effective when integrated into larger anti-corruption campaigns. Modern information technology infrastructure not only reduces opportunities for corruption but also has a generally positive impact on the entire trade process, thereby benefitting economic development overall.

**NOTES**

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1. World Customs Organization 2015.
2. WTO 1998a. Trade facilitation is defined by the WTO as “The simplification and harmonization of international trade procedures, where trade procedures are the activities, practices, and formalities involved in collecting, presenting, communicating, and processing data and other information required for the movement of goods in international trade.”
3. In Doing Business 2017 the trading across borders indicators collect data on the status of implementation of the following components of single window systems in 190 economies: physical one-stop shop; customs electronic data interchange system; port or border integration; other governmental agencies integration; national single window; regional single window.
5. See the website of Colombia’s Superintendencia de Industria y Comercio available at http://www.sic.gov.co/drupal/.
6. UNCTAD, “The ASYCUDA Programme.”

7. For more information on the Automated System for Customs Data (ASYCUDA), see its website at http://www.asycuda.org/.
10. WTO 2013a.
12. Sabbagh and others 2013. Roor & Company’s Digitization Index is a composite score that calculates the level of an economy’s digitization using 23 indicators to measure six attributes: ubiquity, affordability, reliability, speed, usability and speed. The Digitization Index measures an economy’s level of digitization on a scale of 0 to 100, with 100 signifying the most advanced, to identify its distinct stage of digital development: constrained, emerging, transitional or advanced.
15. UN/CEFACT 2005.
18. World Bank 2015c.
21. UNECE 2005. The costs of establishing a single window can vary greatly depending on the information technology interface, the level of sophistication, the number of adopted modules and overall trade volumes.
22. Duval 2006; Moise, Orliac and Minor 2011. The Duval 2006 study lists the following 12 common trade facilitation measures: alignment of trade documents according to the UN Layout Key for trade documents; online publication of relevant trade data; establishment of enquiry points and single national focal points for trade regulations and other trade facilitation issues; establishment of a national trade facilitation committee; provision of advance rulings; establishment of an effective appeal procedure for customs; establishment of a single window system; establishment and systematic use of pre-arrival clearance mechanisms; implementation of modern risk management systems; establishment and wider use of audit-based customs; expedited clearance of goods and expedited procedures for express shipments and qualified traders/companies.
24. Maniego 1999. “Green channel” clearance of goods refers to the process of customs clearance without routine examination of the goods. “Green channel” status is provided only to certain traders and products that meet the eligibility requirements set by customs authorities. Eligibility requirements may include, but are not limited to: government-approved list of companies and products, top importers in terms of duty payment and traders who have an impeccable record. Moving goods through the “green channel” that are not part of an economy’s list of “green channel” products constitutes a customs offense that carries administrative and in some cases criminal liability.
29. The Swedish single window also connects customs to the National Board of Trade, the Swedish Board of Agriculture, the National Inspectorate of Strategic Products, the National Board of Taxation, the National Debt Office, the Swedish police, Norwegian customs, Russian customs and the European Commission.
30. See the website of the Swedish customs service at http://www.tullverket.se/.
32. The members of the Association of Southeast Asian Nations are: Brunei Darussalam, Cambodia, Indonesia, the Lao People’s Democratic Republic, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam.
33. USAID 2012.
34. The members of Red VUCE (Inter-American Network of International Trade Single Windows) are: Argentina, The Bahamas, Barbados, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Suriname, Trinidad and Tobago, Uruguay and Republica Bolivariana de Venezuela.
40. Avom and Fankem 2014. The members of the Central African Economic and Monetary Community (CEMAC) are Cameroon, the Central African Republic, Chad, Equatorial Guinea, Gabon and the Republic of Congo.
41. Myrdal 1965.
43. Dutt and Traca 2010.
44. Rose-Ackerman 1997.
45. Dutt and Traca 2010.
46. A higher score on the Corruption Perceptions Index indicates a lower level of perceived corruption.
47. World Bank 2015c. The rule of law variable “reflects perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence.” The control of corruption variable “reflects perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as “capture” of the state by elites and private interests.”
52. McLinden 2005.
53. World Bank 2012b.
55. Fjelstad 2009.
56. de Wulf and Sokol 2004.
Labor market regulation can protect workers’ rights, reduce the risk of job loss and support equity and social cohesion. However, overregulation of the labor market can discourage job creation and constrain the movement of workers from low to high productivity jobs. Stringent labor regulation has also been associated with labor market segmentation and reduced employment of women and youth. Laws that restrict women’s access to certain jobs, for example in mining or manufacturing, often with the goal of protecting women’s interests, may contribute to occupational segregation and a larger gender wage gap. By contrast, weak labor market rules can exacerbate problems of unequal power and inadequate risk management. The challenge in developing labor policies is to avoid the extremes of over and under-regulation by reaching a balance between worker protection and flexibility.

Doing Business measures several aspects of labor market regulation—hiring, working hours, redundancy rules and cost—as well as a number of job quality aspects (such as the availability of unemployment protection, maternity leave and gender nondiscrimination at the workplace) for 190 economies worldwide. This helps benchmark an economy’s labor rules and examine the relationship between labor market regulation and economic outcomes. For example, economies with more flexible labor regulation tend to have a higher share of formally registered firms. Furthermore, flexible employment regulation is associated with a larger share of active contributors to a pension scheme in the labor force—a measure that can be used as a proxy for formal employment (figure 10.1).

Employment protection legislation (EPL)—the rules governing hiring and dismissal of workers—is designed to enhance worker welfare and prevent discrimination. However, its impact on labor market outcomes is a contentious subject. Proponents of strict EPL argue that it provides stability by moderating employment fluctuations over the business cycle and increases worker effort and firm investments in human capital. Critics have linked stringent employment protection legislation to the proliferation of dual labor markets, whereby a labor force becomes segmented into formal versus informal sector workers (in developing economies) and permanent versus contingent workers (in high-income economies). Several studies point to the association between strict labor market regulation and higher levels of informality, which negatively impacts productivity and welfare. On average, firms in the informal sector have less value added per worker and pay lower salaries than formal sector enterprises. Informal firms also offer little job security and few fringe benefits to their employees. Rigid labor rules have also been linked to the decreased ability of vulnerable groups—women, youth and the low skilled—to find jobs. Some studies have found that strict employment regulation reduces aggregate job flows and hinders productivity. The overall regulation is essential for the efficient functioning of labor markets and worker protection. Labor market rules can also potentially have an impact on economic outcomes. Doing Business data show that rigid employment regulation is associated with higher levels of informality. By contrast, weak labor market rules can result in discrimination and poor treatment of workers.

The challenge for governments in developing labor policies is to strike the right balance between worker protection and flexibility.

Regulation of labor markets differs significantly by income group. Low- and lower-middle-income economies tend to have stricter employment protection regulation than more developed economies.

One reason for more rigid employment protection legislation in low- and lower-middle-income economies is the lack of unemployment insurance. None of the low-income economies and only 23% of lower-middle-income economies have unemployment protection stipulated in the law.

Most economies do not have laws mandating gender nondiscrimination in hiring and equal remuneration for work of equal value. Such laws are most common in OECD high-income economies.

There is no blueprint for the optimal mix of employment protection rules. Regulation should be tailored to national circumstances and designed in collaboration with social partners.
impact of strict EPL on productivity is unclear, however, as firms may choose to invest in capital and skills deepening in response to stricter legislation.\(^7\)

Balancing employment protection legislation to ensure adequate worker protection as well as efficient labor allocation is an important priority for governments as they strive to create more and better jobs. Measuring labor market regulation is a key step in formulating informed public policy. This year *Doing Business*, which has measured aspects of labor market regulation since 2003, includes information on about 40 aspects of labor laws in 190 economies.

### WHO REGULATES HIRING AND REDUNDANCY RULES THE MOST?

*Doing Business* data show that low- and lower-middle-income economies tend to have more rigid employment protection legislation compared to more developed economies (figure 10.2). The narrative below discusses differences in selected labor market regulations, such as availability of fixed-term contracts, redundancy rules, severance pay and unemployment insurance across different groups of economies.\(^8\)

#### Hiring

As economies develop, several types of contracts may be required to satisfy business needs. *Doing Business* measures the availability of fixed-term contracts\(^9\) for a task relating to a permanent activity of the firm. Fixed-term contracts allow firms to better respond to seasonal fluctuations in demand, temporarily replace workers on maternity leave and reduce the risks associated with starting an innovative activity with uncertain returns on investment. Fixed-term contracts also have the potential to increase the employability of first time labor market entrants, particularly the youth, by providing them with experience and access to professional networks, which may eventually enable
them to find permanent jobs. Evidence from the Organisation for Economic Co-operation and Development (OECD) shows that fixed-term contracts are more common among the youth than older workers, suggesting that many young people manage to transition to permanent jobs after an initial fixed-term contract. For example, in the EU-10 only 50% of young workers hold a permanent contract one year after leaving school but 73% are in permanent employment five years after completing their education. These numbers are higher in the Republic of Korea and the United Kingdom where 86% and 81% of young workers, respectively, are in permanent employment one year after leaving school and more than 90% five years after graduation.

Fixed-term contracts are currently available in 64% of economies but there is a significant regional variation: 84% of economies in East Asia and the Pacific compared to 44% in Europe and Central Asia allow the use of fixed-term contracts for permanent tasks (figure 10.3). Low-income economies are less likely to allow fixed-term contracts than middle-income and high-income economies (figure 10.4).

The impact of the use of fixed-term contracts on labor market outcomes depends on the rigidity of employment protection

Source: Doing Business database.

**FIGURE 10.2** Low-income economies tend to have more rigid employment protection legislation

*Doing Business* sub-indices on hiring and redundancy

Source: Doing Business database.

Note: Higher scores indicate more rigid regulation.

**FIGURE 10.3** The use of fixed-term contracts varies widely by region

Share of economies with fixed-term contracts allowed for permanent tasks (%)

Source: Doing Business database.

**FIGURE 10.4** Low-income economies are most likely to limit the use of fixed-term contracts

Share of economies with fixed-term contracts allowed for permanent tasks (%)

Source: Doing Business database.
BOX 10.1 Flexibility at the margin: The perils of the dual labor market in Spain

Spain has the highest level of labor market segmentation in the EU-15,\(^a\) with around a quarter of its population and almost 90% of new hires employed on fixed-term contracts.\(^b\) The conversion rate from fixed-term to permanent employment hovers around 6%.\(^c\) Nearly all fixed-term employees in Spain (96%) accepted contracts of limited duration because they could not find a permanent job.\(^d\)

The origin of Spain’s labor market duality dates back to a 1984 reform. The Spanish economy was hit hard by the second oil crisis and the unemployment rate surged. To boost employment, the government removed most restrictions on the use of fixed-term contracts while the dismissal rules for regular contracts remained unchanged. After the reform, fixed-term contracts could be used for any economic activity for up to three years. These contracts entailed a relatively low dismissal cost (with severance pay of up to 12 days per year of service) and their termination could not be appealed in labor courts.\(^e\) For permanent contracts, dismissal costs depended on the reason for the layoff and the seniority of the employee: fair dismissals required mandatory severance pay of 20 days of salary per year of service with a maximum of 12 monthly wages; unfair dismissals mandated payment of 45 days of salary per year of service with a maximum of 42 monthly wages.\(^f\) Economic reasons for fair dismissals included in the law were limited and the courts had a very narrow reading of those reasons. Given the large difference in dismissal costs, it is not surprising that soon after the reform almost all new hires were made on fixed-term contracts.

Although reforms have been introduced since 1994 to encourage permanent employment, these have had little impact on the prevalence of fixed-term contracts. Around 35% of employees in Spain were on a fixed-term contract in 2006. This figure declined to 24.5% in 2011/12 following the global economic crisis as temporary workers were the first to be dismissed.\(^g\)

The dual labor market has resulted in a number of negative equity and efficiency outcomes. Fixed-term workers in Spain experience frequent job turnover and face a higher risk of unemployment. The probability of being unemployed one year after being in fixed-term employment in Spain is 6.2 percentage points higher for men and 7.3 percentage points for women compared to permanent employees.\(^h\) Furthermore, firms are much less likely to invest in training for temporary workers in economies with dual labor markets compared to those where transitions from fixed-term to permanent employment are easier.\(^i\) In Spain, the probability of receiving employer sponsored on-the-job training is 18% lower for fixed-term workers relative to permanent employees.\(^j\) This contributes to skill gaps between employees on different types of contracts and makes the transition to regular employment more difficult for fixed-term workers. Furthermore, a wide gap in the dismissal costs for fixed-term and permanent contracts—and consequently, low conversion rates—have been linked to poor total factor productivity growth in Spain.\(^k\)

The government of Spain introduced several reforms between 2012 and 2015 to increase flexibility, reduce labor market duality and improve employment outcomes of young people. Measures included: (i) increasing flexibility in wage bargaining and work scheduling by prioritizing firm level agreements over those at the sectoral or regional level (to allow for labor market adjustments through wages and hours worked rather than dismissals); (ii) eliminating administrative authorization for collective dismissals while maintaining the requirement of negotiation with the unions before giving the worker notice of dismissal; (iii) reducing severance payments for unfair dismissals (compensation for fair and unfair dismissals in Spain remains larger than the average in OECD countries even after the reform); (iv) creating tax incentives for new permanent hires; and (v) establishing active labor market programs for the youth and the long-term unemployed.\(^l\) The preliminary assessments showed that these reforms were associated with increased hiring on permanent contracts and reduced separations of workers on temporary contracts.\(^m\) The impacts were small, however, and it will take time and a sustained reform effort to reduce labor market duality.\(^n\)

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\(^a\) EU-15 consists of 15 economies that were members of the EU before the May 1, 2004, enlargement (Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden, and the United Kingdom).

\(^b\) OECD 2014b.

\(^c\) Cabrales, Dolado and Mora 2014.

\(^d\) OECD 2014b.

\(^e\) Bentolila, Dolado and Jimeno 2011.

\(^f\) Bentolila, Dolado and Jimeno 2011.

\(^g\) OECD 2014b.

\(^h\) OECD 2014b.

\(^i\) Cabrales, Dolado and Mora 2014.

\(^j\) OECD 2014b.

\(^k\) Dolado, Ortigueira and Stucchi 2012.

\(^l\) IMF 2015b; OECD 2014c.

\(^m\) IMF 2015b; OECD 2014c.

\(^n\) IMF 2015b; OECD 2014c.
labour market regulation and legislation for regular workers. Evidence from the OECD shows that in economies with significant differences in regulation governing permanent and fixed-term contracts, firms tend to exploit the latter arrangement. Substantial variations in employment protection legislation for different types of contracts incentivizes companies to substitute fixed-term for permanent workers with no overall increase in employment. It also reduces the conversion rate of temporary to permanent employment, turning fixed-term contracts into a trap rather than a stepping stone toward an open-ended job. Indeed, in almost all EU economies on which data are available, less than 50% of the workers that were hired on a temporary contract in a given year are employed on a permanent contract three years later. Furthermore, if dismissing permanent employees is costly, workers on fixed-term contracts will bear a disproportionate burden of labor market adjustments. Evidence from the OECD also shows that firms are less likely to invest in training for temporary workers compared to permanent workers (by 14%, on average, for economies on which data are available) with negative implications for professional development and earnings as well as overall firm productivity. The resulting duality of labor markets can have a number of negative outcomes (box 10.1).

Redundancy rules
Modification of the size and composition of the workforce is essential to ensure that firms can respond to changing economic conditions and technological developments. However, job destruction negatively impacts dismissed workers through income loss and skill deterioration if the search for a new job is protracted. Large-scale dismissals can also have high social costs. The challenge for governments is to avoid overregulation of redundancy rules, which constrains labor reallocation to more productive activities and, at the same time, to protect workers against discrimination and minimize the costs of job loss through effective unemployment insurance, and active labor market and social assistance programs.

Doing Business data on redundancy rules show that while the majority of economies have relatively flexible legislation, pockets of rigidity remain for certain types of regulation. Redundancy is allowed as a ground for dismissal in all but three economies, namely Bolivia, República Bolivariana de Venezuela and Oman. However, a number of economies limit the firms’ freedom to decide which workers they want to employ and which to dismiss. In particular, 40% of economies have priority rules for redundancies (such as the requirement that the person hired most recently be dismissed first) and 37% for reemployment (the provision that new jobs first be offered to the previously dismissed workers). Low-income economies are more likely to have such rules than middle-income and high-income economies (figure 10.5). Priority rules for dismissals and reemployment benefit the incumbents disproportionately at the expense of young and potentially more productive workers. Given the rising share of youth in the working population and the high rates of youth unemployment in low-income economies, these rules should be subjected to continuous review and adaptation to new circumstances.
BOX 10.2 India’s labor regulation has been associated with a number of economic distortions*

Labor market issues in India are regulated by 45 central government laws and more than 100 state statutes. One of the most controversial laws, the Industrial Dispute Resolution Act (IDA) of 1947, requires factories with more than 100 employees to receive government approval to dismiss workers and close down. Obtaining such approvals entails a lengthy and difficult process and illegal worker dismissals can result in significant fines and a prison sentence. Industrial establishments also have to observe many other laws that regulate every aspect of their operations from the frequency of wall painting to working hours and employee benefits. Compliance with labor regulation also entails a considerable amount of paperwork and filing requirements.

Indian states have the freedom to amend labor laws. Besley and Burgess\(^a\) found that states with rigid employment regulation had lower output, employment and productivity in formal manufacturing than they would have had if their regulations were more flexible. Sharma\(^b\) applied Besley and Burgess’ methodology to assess the impact of delicensing reform on informality. The paper finds that following this reform, the informal sector contracted to a greater extent in states with more flexible labor laws; these states also experienced a larger increase in value added per worker compared to states with more rigid regulation. The author concludes that entry deregulation can lead to productivity-enhancing labor reallocation from the informal to the formal sector, if labor laws are flexible. Ahsan and Pages\(^c\) modified the Besley and Burgess methodology and evaluated the effects of employment protection legislation and the cost of labor disputes on economic outcomes. They found that in states that raised the rigidity of labor regulations above the IDA requirements, employment, output and value added per worker in registered manufacturing decreased compared to states that did not introduce such amendments. Hasan and Jandoc\(^d\) studied the impact of labor regulation on firm size and found that there is a much greater prevalence of larger firms in labor-intensive industries in states with more flexible labor regulation.

Although Indian labor laws aim to increase employment security and worker welfare, they often have negative impacts by creating incentives to use less labor and encouraging informality and small firm size. Indeed, Indian firms are more capital-intensive relative to the economy’s factor endowments. High labor costs in formal manufacturing have also contributed to India’s specialization in the production and export of capital-intensive and knowledge-intensive goods despite the country’s comparative advantage in low-skilled, labor-intensive manufacturing. To circumvent labor laws and other regulations, most Indian firms do not register and about 85% of non-agricultural employment is in the informal sector.\(^e\) Informality is associated with low productivity: value added per worker in India’s manufacturing sector averages about one-eighth of the formal sector.\(^f\) Furthermore, only 9.8 million workers out of a total estimated workforce of 470 million were employed in private sector firms with 10 or more workers in 2007-2008.\(^g\) This pattern of employment distribution has important welfare implications as small enterprises in India and globally are on average less productive and pay lower wages.\(^h\)

The Indian government recently announced plans for major reforms to labor regulation aimed at increasing job creation and encouraging compliance. The planned legislative amendments include the consolidation of central labor laws, facilitating the retrenchment and closing down of factories by allowing firms employing less than 300 workers to dismiss them without seeking government approval, and increasing compensation to retrenched workers. Broad consultation with a wide range of stakeholders is essential to inform the design and ensure support for reform implementation. Evaluating the impact of the reform will be important.

\(^a\) Besley and Burgess 2004.
\(^b\) Sharma 2009.
\(^c\) Ahsan and Pagés 2009.
\(^d\) Hasan and Jandoc 2012.
\(^e\) World Development Indicators database (http://worldbank.org/indicator), World Bank.
\(^f\) World Bank 2010.
\(^g\) Bhagwati and Panagariya 2013.
\(^h\) Hasan and Jandoc 2012.

* Many of the findings presented in this box were also discussed in the World Bank's "World Development Report 2014: Risk and Opportunity."
so. In economies with well-functioning employment services, notification requirements for collective dismissals can help government officials prepare for an increase in the number of unemployed, including through the design of targeted job search assistance and training programs. By contrast, there is little justification for mandating third-party approval for redundancy dismissals. In some economies, obtaining such approval entails a lengthy process or the approval is hardly ever granted, making dismissals de facto impossible. This is the case in India, where cumbersome redundancy rules—combined with rigidities in other labor regulations—have been linked to a number of economic distortions (box 10.2).

**Severance pay, unemployment insurance and social assistance**

Most economies (79%) mandate severance payments for redundancy dismissals. This requirement can be justified by the need to provide some income protection for redundant workers. However, severance payments are a weak mechanism for income loss mitigation and are no substitute for unemployment insurance.21 On the income protection front, there is no connection between the benefits and workers’ financial situation—the same amount is paid regardless of the duration of unemployment. Despite legal entitlement, many workers fail to obtain their benefits as liabilities often arise when the firm is least capable of paying them.22 Severance pay may also contribute to labor market duality as the increase in dismissal costs can reduce access to jobs for vulnerable groups.23 Furthermore, given that severance payments tend to increase with tenure, redundancy decisions may be biased against young workers.24

Severance payments may be damaging for domestic small and medium-size enterprises struggling with economic difficulties or going out of business. In some economies, severance payments approximate or exceed one year of salary. Table 10.1 provides a snapshot of the economies with the highest legally-mandated severance pay for workers with 10 years of tenure. Overall, the magnitude of severance payments tends to decrease as the income levels of economies increase. Doing Business data show that severance payments for workers with 10 years of tenure are significantly higher in low- and lower-middle-income economies compared to high-income economies (table 10.2). However, in developing economies the capacity to enforce the law is poor,25 leaving the majority of workers outside the public sector unprotected against job loss risks.

Lack of unemployment insurance and social assistance programs more generally is one reason behind the sizeable severance pay in low- and lower-middle-income economies (table 10.2). Globally, 60% of economies do not have any unemployment benefit schemes stipulated by law; the situation is particularly dire in low-income economies. Unemployment insurance is a more effective mechanism for income protection than severance pay because it pools risk, allowing resources to be accumulated in good times and released in times of hardship. However, the introduction of unemployment insurance in economies with large informal sectors is challenging as many workers have both formal and informal jobs, which makes it difficult to establish their eligibility for unemployment insurance.26 Furthermore, open unemployment is not common in low-income economies, where the majority of the population is engaged in agriculture or self-employment. In this context, income loss is more common than job loss, making social assistance programs critically important.27 However, only one quarter of the poorest quintile are covered by some type of social assistance programs in low- and lower-middle-income economies compared to 64% in upper-middle-income economies.28

In developing economies that have introduced unemployment insurance, such programs are often characterized by low coverage (due to large informal sectors and strict eligibility criteria) as well as low benefits.29 Similarly, the outreach and quality of active labor market programs like job search assistance, training, and public work programs in the developing economies is inadequate.30

---

**TABLE 10.1** Top 10 economies with the highest severance pay

<table>
<thead>
<tr>
<th>Economy</th>
<th>Severance pay (in weeks of salary) for a worker with 10 years of tenure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sierra Leone</td>
<td>132.0</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>97.5</td>
</tr>
<tr>
<td>Indonesia</td>
<td>95.3</td>
</tr>
<tr>
<td>Ghana</td>
<td>86.7</td>
</tr>
<tr>
<td>Zambia</td>
<td>86.7</td>
</tr>
<tr>
<td>Mozambique</td>
<td>65.0</td>
</tr>
<tr>
<td>Equatorial Guinea</td>
<td>64.3</td>
</tr>
<tr>
<td>Ecuador</td>
<td>54.2</td>
</tr>
<tr>
<td>Egypt, Arab Rep.</td>
<td>54.2</td>
</tr>
<tr>
<td>Lao PDR</td>
<td>52.0</td>
</tr>
</tbody>
</table>

**TABLE 10.2** Availability of unemployment protection and magnitude of severance pay

<table>
<thead>
<tr>
<th>Income group</th>
<th>Availability of unemployment protection (% of economies)</th>
<th>Severance pay for a worker with 10 years of tenure (in weeks of salary)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low income</td>
<td>0</td>
<td>24</td>
</tr>
<tr>
<td>Lower middle income</td>
<td>23</td>
<td>28</td>
</tr>
<tr>
<td>Upper middle income</td>
<td>44</td>
<td>20</td>
</tr>
<tr>
<td>High income</td>
<td>81</td>
<td>13</td>
</tr>
<tr>
<td>Global average</td>
<td>40</td>
<td>21</td>
</tr>
</tbody>
</table>

Source: Doing Business database.
Evidence from evaluations shows that, when well designed, active labor market programs in developing economies can be cost effective and have a positive impact on employment outcomes. Job search assistance and training programs can help workers find jobs and improve earnings provided that job openings exist. Such programs can also be effective in reaching vulnerable groups. For example, in Latin American economies and economies in transition, youth and women record significantly better outcomes from training than do middle-aged men. There is also evidence from a number of developing economies that public employment programs can be used effectively to provide workers with temporary jobs and a source of income.

**HOW ARE GENDER RELATIONS REGULATED IN THE WORKPLACE?**

Gender equality can make institutions more representative, improve social cohesion and increase productivity. Women constitute approximately 40% of the global labor force and over 50% of university students. Removing regulatory barriers to women’s access to the labor market can generate broad productivity gains and improve socioeconomic outcomes.

*Doing Business* data show that approximately 60% of economies do not have laws mandating gender nondiscrimination in hiring and equal remuneration for work of equal value (figure 10.7). Such laws are more common in OECD high-income economies, followed by economies in Europe and Central Asia. Women’s earnings globally are estimated to be on average 77% of men’s earnings and the magnitude of the wage gap varies significantly by economy, sector and occupation. The establishment of nondiscrimination laws can provide a legal framework for action on women’s rights and is an important step toward reducing gender inequality in the labor market.

Some economies regulate the types of jobs women can take through restrictions on working at night or in certain industries and occupations. Restrictions on working hours for nonpregnant and nonnursing women are present in 18% of economies and are most common in the Middle East and North Africa (figure 10.8). Legal barriers to women’s work in certain industries and occupations are much more common—100 out of 173 economies for which data are available prohibit women’s participation in certain economic activities. For example, in the Kyrgyz Republic women cannot enter approximately 400 professions and in the Russian Federation women are barred from 456 specified jobs. Such legislation is often meant to protect women’s interests but has been associated with occupational segregation and larger wage gaps as many of these jobs...
are in well-paid sectors such as mining and manufacturing.\textsuperscript{39} Furthermore, economies with work hour or industry restrictions also have, on average, lower female labor force participation—45%, compared with 60% in economies with no restrictions.\textsuperscript{40}

Women, Business and the Law provides quantitative measures of regulations that affect women’s economic opportunities and offers useful insights on the impact of legal gender disparities on women’s economic outcomes. The analysis shows that lower legal gender equality is associated with a larger gender gap in secondary school attendance as families may decide that it is not worthwhile to invest in girls’ education in economies where women face legal barriers to labor market access. Furthermore, in economies with larger legal gender disparities, a woman is less likely than a man to be employed, run a business or advance to management positions. Economies with lower legal gender equality also tend to have a larger wage gap compared to economies where laws are more gender equal.

**CONCLUSION**

Low- and middle-income economies tend to have stricter hiring and redundancy rules. This tendency may be partially explained by the lack of effective mechanisms to protect the income of workers in case of job loss. However, strict EPL may not be an optimal mechanism to support workers and improve the functioning of labor markets. Rules on severance pay, for example, may be difficult to enforce when firms are struggling with economic difficulties or going out of business. Despite stringent employment protection legislation, workers in low-income economies are vulnerable to arbitrary treatment by employers and job loss risks due to weak law enforcement and large informal sectors.

Labor policies aimed at protecting workers rather than jobs may carry bigger promise. Strengthening social protection systems—through the development of unemployment insurance, active labor market programs and social safety nets—is instrumental to support workers that have lost their jobs or experienced a decline in earnings.\textsuperscript{41} Expanding coverage of social assistance programs to the informal sector is important for economies where the informal sector is large. One way to do it is through the establishment of integrated cash transfer programs, which could be linked to requirements to participate in training or public work programs, and provide income support while improving worker employability. It is also important to strengthen labor inspectorates, both to enforce worker rights and to provide advisory services to enterprises to improve their compliance with core labor standards.

Preserving jobs that are no longer economically viable—whether due to technological change or domestic or international competitive pressures—may result in an inefficient allocation of resources and hinder productivity. There is no blueprint for the optimal mix of employment protection rules and such regulation should be tailored to national circumstances and designed or reformed in collaboration with social partners. Care should be taken to avoid policies that discourage job creation and increase the level of informality in the economy.

Governments around the world can do more to improve access to economic opportunities for women. Establishment and enforcement of legislation that levels the playing field in access to jobs and remuneration for men and women can strengthen women’s economic status and reduce gender inequality in the labor market. Instead of creating impediments for women’s access to certain jobs, governments can work with employers’ organizations and social partners to promote health and safety standards for men and women. This approach can help reduce occupational injuries and support women in realization of their professional aspirations.

**NOTES**

This case study was written by Anna Reva and Margarida Rodrigues.

8. More detailed and economy disaggregated data on these and other aspects of labor regulation are available in the annex to the report and on the Doing Business website.
9. A fixed-term contract refers to a contract with a specified end date. Fixed-term contracts can be used for permanent as well as for temporary and seasonal activities.
10. OECD 2014b.
11. OECD 2014b.
12. The EU-10 consists of Austria, Belgium, Denmark, Finland, Germany, Greece, Ireland, Italy, Portugal, and Spain.
15. OECD 2014b.
17. OECD 2014b.
18. OECD 2014b.
19. OECD 2014b.
20. OECD 2014b.
22. A study on Peru found that only half of all workers legally entitled to severance payments are likely to receive them. In 2000 one-third of the total severance pay obligations in Slovenia were not honored; Holzmann and Vodopivec 2012.
26. See the discussion of possible models to adjust the classic unemployment insurance schemes to developing economy contexts in Vodopivec 2013 and Robalino, Vodopivec and Bodor 2009.
30. Banerji and others 2014.
33. Subbarao and others 2013.
34. World Bank 2011.
35. ILO 2016.
The selling to the government indicators aim to assess the ease of accessing and navigating public procurement markets across 78 economies, based on consistent and objective data that can inform policy makers in their procurement reform agenda.

The selling to the government indicators measure aspects that are relevant to improving the ease with which companies can do business with governments across economies: access to electronic procurement, bid security, payment delays, incentives for small and medium-size enterprises and complaint mechanisms.

There is a clear move toward the use of electronic public procurement systems. Indeed, 97% of the economies analyzed have one or more online portals dedicated to public procurement.

Of the economies included in the selling to the government indicators close to 90% impose a bid security deposit requirement that suppliers must fulfill for their bid to be accepted.

In 37% of the economies included in the selling to the government indicators payment occurs within 30 days on average while in 47% of the economies suppliers can expect to receive payments between 31 and 90 days following completion of the contract.

Public procurement is the process of purchasing goods, services or works by the public sector from the private sector. The range of industries involved in public procurement is therefore as wide as what a government needs to function properly and to deliver public services to its citizens. Whether for the construction of a school or to purchase hospital supplies, to secure information technology services in public buildings or renew a fleet of city buses, governments must constantly turn to the private sector to supply goods and services. Overall, public procurement represents on average 10 to 25% of GDP, making procurement markets a unique pool of business opportunities for the private sector.1

Given its significant size, public procurement can impact the structure and functioning of the market beyond the mere quantities of goods and services purchased.2 For instance, through its procurement policies, the public sector can affect the incentives of firms to compete in a number of ways.3 In the short-term, public procurement can impact competition among potential suppliers; in the long-term, public procurement can affect investment, innovation and the competitiveness of the market.4 Indeed, research has shown that where entry barriers to procurement markets are kept to a minimum and the competitive process can play its role, the private sector thrives and tends to compete and innovate more.5 In fact, where businesses—particularly small and medium-size enterprises—have a fair chance to compete for government contracts, it can give them the necessary boost to further develop their activity, and even propose innovative goods and services that will meet demand in other markets.6

Competition in procurement markets is therefore critical on many levels and procurement policy may be used to shape the longer term effects on competition in an industry or sector.7

BUILDING NEW INDICATORS: SELLING TO THE GOVERNMENT

Public procurement laws and regulations—and their implementation in practice—can encourage competition by increasing suppliers’ confidence in the integrity and efficiency of the procurement process.8 That will, in turn, allow government agencies to deliver better services and give the public more confidence in the way public funds are spent.9 To build and maintain a reputation as a trustworthy and efficient business partner, which can increase competition in later procurements, the purchasing entity has to pay promptly when payment is due in return for adequate performance. The legal framework should specify a timeframe for making payments and provide additional compensation when the procuring entity fails to pay on time. Indeed, delays in payment can have severe consequences for private sector suppliers, particularly small and medium-size enterprises which typically do not have large cash flows.10 Companies may also be deterred from responding to public calls for tender if it is difficult
to access the relevant information in a timely fashion, if delays and extraordinary costs are expected to be incurred throughout the procurement process and if unpredictable regulations create additional burdensome hurdles.

The selling to the government indicators aim to assess the ease of accessing and navigating public procurement markets across 78 economies, based on consistent and objective data that can inform policy makers in their procurement reform agenda. The indicators have been developed by the Benchmarking Public Procurement project, an initiative developed at the request of the G20 Anti-Corruption Working Group, in order to measure transaction costs of public procurement contracts. The Benchmarking Public Procurement data for indicators selected for the analysis presented here are available on the Doing Business website.

There is a recognized need for more research on good practices and challenges in the public procurement sector. Due to the lack of comparable global statistics there has been limited research analyzing how legal frameworks and government policies in public procurement enhance competition and private sector development.

The most comprehensive tool that exists in the field of public procurement is the Use of Country Procurement Systems—an initiative led by the Organisation for Economic Co-operation and Development (OECD) with the cooperation of other international financial institutions including the World Bank Group—which aims to increase reliance on domestic procurement systems through donor-funded projects. In 2008 the World Bank launched a program for the use of country systems in bank-supported operations. Through this program a number of economies have been selected to be assessed in a comprehensive manner. Tools like the Country Procurement Assessment Reports (CPAR)—which review the legal and institutional framework for procurement and recommend reforms—and the Methodology for Assessing Procurement Systems (MAPS) were used to assess the systems for public procurement, public financial management and governance in these economies. Other integrated diagnostic tools such as the Public Expenditure and Financial Accountability (PEFA) instrument were also created.

The selling to the government indicator set will generate data that will directly support national priorities and help economies to strengthen their procurement systems and ultimately achieve sustainable development outcomes. The data will also help economies to promote private sector competition by addressing the constraints to competition in public procurement. The selling to the government indicators measure aspects that are relevant to improving the ease with which companies can do business with governments across economies: access to electronic procurement, bid security, payment delays, incentives for small and medium-size enterprises and complaint mechanisms (figure 11.1).

To ensure that the data are comparable across the 78 economies covered, several assumptions about the bidding company, the procuring entity and the type of services being procured were used during the data collection process and analysis. In particular, a procuring entity which is a local authority in the main business city is planning to resurface a road for a value equivalent to 91 times the economy’s income per capita or $2 million, whichever value is higher. It initiates a public call for tender following an open and competitive procedure. BidCo, a private, domestically-owned limited liability company, is a bidder.

WHERE SELLING TO THE GOVERNMENT IS EASIER AND WHY

Accessing information and services online: accessibility and transparency

By streamlining the procurement process and supporting virtual access to information, the digitalization of public procurement—or e-procurement—lowers costs, reduces delays, maximizes efficiency and increases transparency. Research has shown that increased publicity requirements reduce government spending and maximize the effectiveness of their public procurement systems. As a result, the procurement process becomes much simpler and cost-efficient, especially for companies with limited resources. In the past 10 years e-procurement has developed rapidly as more and more economies have recognized its added value and engaged in a transition toward digitalization.

The selling to the government indicators examine which materials can be accessed online and whether a supplier can submit a bid, sign the procurement contract and request payments through an online platform.

A well-functioning e-procurement portal which serves as a one-stop shop to access all public procurement opportunities and associated information increases the participation of small and medium-size enterprises in public calls for tender. In Chile, for example, 10 years after the ChileCompra portal was implemented the share of contracts...
awarded to small and medium-size enterprises had risen from 24% to 44%.19 The Korean e-procurement system, KONEPS, is another example of how a well-functioning portal can enhance efficiency, effectiveness and integrity of public procurement and act as a driver for investment and economic growth.20 E-procurement also lowers the risk of fraud and corruption by limiting one-on-one interactions between buyers and sellers21 and as such is recognized as an effective tool in combating corruption.22 An e-procurement system increases transparency by collecting and publishing public procurement information and enhancing access for suppliers and other stakeholders through standardized and simplified processes. Research has shown that e-procurement improves service quality by facilitating entry for higher quality suppliers and reducing delays to public works projects.23

Procurement portals should support interactions between bidders and public buyers. Accessing information and interacting with public buyers—whether to ask questions or submit a bid—can be a costly and lengthy process for bidders. Having the option to do this online will save significant time and money.

There is a clear move toward the use of electronic public procurement systems. Indeed, 97% of the economies analyzed have one or more online portals dedicated to public procurement. Where economies have made measurable progress in implementing online procurement platforms, some are more advanced than others when it comes to the services offered to the users. Across economies the electronic platforms range from simple websites—that do not support interactions but allow users to merely access tendering information—to sophisticated platforms offering a range of services for conducting the procurement process online. In countries like Australia, Italy, the Republic of Korea, New Zealand and Singapore bidders can access notices of calls for tender and tender documents online as well as submit their bids through an electronic platform. Because of these options bidders in such economies spend less time performing necessary procedures than a prospective bidder in an economy where tender documents have to be obtained in hard copies and bids have to be submitted in person or via regular mail, as is the case in Angola and The Gambia.

Award notices should also be available online. In economies like Sweden the online publication of awards is mandated by law but in other economies such as Burundi, Jamaica and Myanmar bidders are still unable to access the outcome of the tendering process online (figure 11.2).

Guaranteeing the seriousness of bids through bid security instruments

When a company submits a bid in response to a call for tender it is often required to post bid security, either in the form of monies or a bank or insurance guarantee. The procuring entity typically holds the security deposit until the procurement contract is signed, after which all deposits are returned to the bidders. Bid security is a valuable instrument for procuring entities because it helps avoid the unnecessary use of resources. The selling to the government indicators measure the legal framework for bid security, the amount and the time for the procuring entity to return the deposit.

Requiring bidders to secure a guarantee or put together a substantial amount of money discourages those firms that may be tempted to approach the bidding process in a manner that is not serious. However, for bid security to fulfill its purpose and not act as a deterrent to companies it should be regulated and of a reasonable amount. A bid security that is too high can prohibit companies with limited resources from participating in the public market. To prevent this from occurring the maximum amount that procuring entities can request as bid security should not be left to their discretion—it should be regulated by law to prevent excessive amounts and guarantee equal treatment. The timeframe for purchasing entities to return a deposit—as well as the decision to cash it—should also be regulated.

Of the economies included in the selling to the government indicators close

FIGURE 11.2  E-mail submission of bids is an area where many economies can improve

<table>
<thead>
<tr>
<th>Economies with availability of electronic services (number)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notice of award/bidding results available online</td>
</tr>
<tr>
<td>Tender documents available online</td>
</tr>
<tr>
<td>Submission of bids available online</td>
</tr>
<tr>
<td>Submission of bids via e-mail</td>
</tr>
</tbody>
</table>

Source: Doing Business database.
to 90% impose a bid security deposit requirement that suppliers must fulfill for their bid to be accepted (figure 11.3). However in 16 of these economies the legal framework does not stipulate a maximum amount that the procuring entity can request bidders to deposit, leaving it to the discretion of the procuring entity. This is the case in Morocco, among others.

Obtaining payment following the performance of contractual obligations

Obtaining payment in due time is of critical importance for businesses, especially small and medium-size ones. Research has shown that delays in government payments directly impact small enterprises as they often need to increase borrowing to offset the shortage of cash. Increased delays in public payments have a direct impact on private sector liquidity and profits, thereby reducing economic growth. When a supplier is not paid for its good, work or service, it can run into a cash flow problem that will significantly impact its business. Therefore, where public buyers are known to pay their suppliers late and provide no financial compensation for the delay, companies might refrain from doing business with them.

The selling to the government indicators focus on the legal and actual timeframe to process payments. The recognized good practice is that suppliers should be paid within 30 days following the performance of the contract. In practice, however, payment delays are frequent in public procurement markets. In 37% of the economies included in the selling to the government indicators payment occurs within 30 days on average (figure 11.4) while in 48% of the economies suppliers can expect to receive payments between 31 and 90 days following completion of the contract. It takes between 91 and 180 days for the supplier to obtain payment in only 14% of economies.

Payment delays are positively correlated with Transparency International’s Corruption Perceptions Index (CPI) in the sample of 76 economies. Indeed, the average CPI is higher (less corruption) in economies with shorter payment time periods (figure 11.5).

Increasing the participation of small and medium-size enterprises in the public procurement market

With small and medium-size enterprises constituting a large proportion of businesses, governments around the world are seeking ways to encourage these firms to participate in the public procurement market. Findings from the selling to the government indicators show that 62% of economies measured have set up specific legal provisions or policies to promote fair access for small and medium-size enterprises to government contracts.

The new European Union directives on public procurement seek to expand access for small and medium-size enterprises to public procurement markets. Large public contracts are divided into smaller batches, thereby allowing small and medium-size enterprises to participate in large tenders. Furthermore, preferential treatment is given to small and medium-size enterprises by limiting their turnover requirement to twice the contract value. Other regions are also establishing incentives aimed at facilitating access by small and medium-size firms to public tenders. In Angola, Côte d’Ivoire, the Dominican Republic, India and Morocco, for example, procuring entities

FIGURE 11.3 The bid security is regulated in the majority of economies

![Diagram of bid security regulations](Image)

**Source:** Doing Business database.

*Note:* In Chile the procuring entity will include the amount of the bid security in the tender documents. In the case that the procuring entity fails to include the amount of the bid security in the tender documents, any bid security is required as part of the offer, the bid security amount will automatically be 2% of the estimated contract price.

FIGURE 11.4 Payments are received within 30 days in around a third of economies

![Diagram of payment periods](Image)

*Source:* Doing Business database.

**Average CPI 2015**

<table>
<thead>
<tr>
<th>Period to receive payment</th>
<th>(29 economies)</th>
<th>(36 economies)</th>
<th>(11 economies)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0–30 days</td>
<td>50</td>
<td>40</td>
<td>30</td>
</tr>
<tr>
<td>31–90 days</td>
<td>40</td>
<td>35</td>
<td>25</td>
</tr>
<tr>
<td>91–180 days</td>
<td>30</td>
<td>25</td>
<td>15</td>
</tr>
</tbody>
</table>


*Note:* Two economies were excluded from the sample: the Marshall Islands, for which CPI data was not available, and the Dominican Republic, the only economy in which payment delays exceed 181 days.
are required to allocate around 20% of the total value of government contracts to small and medium-size enterprises. That “set aside” ratio increases to 25% in Angola and Kenya and 40% in Taiwan, China. In some economies, the incentive takes a different form: projects below a certain threshold value are earmarked to small and medium-size enterprises. That threshold is equivalent to $190,000 in Indonesia, $125,000 in Colombia and $24,650 in Brazil (applicable only to micro and small enterprises). In economies such as Bolivia and the Arab Republic of Egypt, incentives for small and medium-size enterprises include an exemption from a portion or the full amount of a bid security. Additionally, in the Russian Federation the maximum amount of bid security cannot exceed 2% of the maximum price of the contract when the bid is submitted by a small or medium-size enterprise. Incentives pertaining to expedited payments are also in place in some economies. Public entities in Angola, for example, are required to pay small and medium-size enterprises within 45 days following the receipt of an invoice.

**Having access to a fair and efficient complaint system**

A well-functioning complaint system in the context of public procurement serves many purposes. For bidders a fair and impartial complaint mechanism is critical as it guarantees that they can file a complaint and that their complaint will be examined in a timely fashion. A robust complaint mechanism also serves as a deterrent to improper conduct by procuring officials, making it paramount to the very integrity of a procurement system. The selling to the government indicators examine elements such as who has standing to file, time limits for review bodies to render decisions, remedies available to suppliers and standstill periods.

Standing to file a complaint differs depending on the stage of the procurement process. During the pre-award stage (that is, when the government purchase is being prepared) standing should not be limited to suppliers who actually submitted a bid. Standing should also be accessible to potential bidders provided they can show an interest in the tender. Once the award decision is taken, then only actual bidders should be allowed to contest the decision in order to deter potentially frivolous complaints. Data show that during the pre-award stage 66 of the economies included in the selling to government indicators allow both actual bidders and potential bidders to file a complaint. In economies where the post-award stage is different, only Burkina Faso grants the right to file a complaint to potential bidders.

Delays in the resolution of complaints can deter potential bidders as they increase the costs for both governments and suppliers—particularly for companies which cannot afford the cost of contesting a flaw in the tendering process or the award itself. A time limit should be set in the law so that when a complaint is submitted the complaining party knows when it will receive a response. This time limit should be long enough to allow for an in-depth review of the complaint but not too long to disrupt the procurement process, especially in economies where a complaint leads to a suspension of the process. But having a regulatory time limit does not guarantee prompt review of complaints. The data show that the time to render a decision by the first-tier review body during the pre-award phase varies greatly across economies depending on whether the first-tier review body is the procuring entity or not. In economies where the first-tier review body is the procuring entity, the complaining party is likely to obtain a timely resolution.

When it comes to second-tier review, the time taken to render a decision also varies considerably depending on the economy. Companies may be reluctant to resort to the complaint mechanism in economies like Bolivia, where it can take up to four years to receive a decision, or India, where a decision can take up to three years. In Colombia, Uruguay and República Bolivariana de Venezuela, decisions on appeals are rendered within two years. However, in economies where the second-tier review body is not a court but an independent review body (such as, for example, an administrative review committee within the national procurement agency), the decision on the appeal is rendered more quickly. This is the case in Albania, Burkina Faso and Senegal, where firms receive a decision from the second-tier review body in less than 10 days.

Effective remedies should be available in the law to suppliers that can demonstrate that the violation of a particular procurement rule has harmed them. During the pre-award stage, such remedies should include the modification of tender documents, the payment of damages and the overturn in whole or in part of an act or a decision of the procuring entity. The legal framework allows first-tier and second-tier review bodies to overturn in whole or in part an act or a decision of the procuring entity in about half of the economies. Furthermore, damages are more frequently awarded by second-tier review bodies (26 economies) than first-tier review bodies (6 economies).

Once the procuring entity announces its award decision it is important that it allows for a standstill period. A minimum
of 10 days is recognized as a good practice by judgments of the European Court of Justice and the World Trade Organization’s Government Procurement Agreement. Twenty-nine economies do not provide for a standstill period and 12 economies allow for a period shorter than 16 days. In Bolivia and Georgia, for example, the standstill period is three calendar days, which does not leave sufficient time for suppliers to file a complaint.

CONCLUSION

The selling to the government indicators expose significant disparities among the 78 economies measured. Although there is a clear move toward enhancing the transparency and efficiency of public procurement systems, impediments such as a lack of access to information, payment delays, unforeseen bid security requirements and inefficient complaint mechanisms remain prevalent across economies of various income groups.

The benefits of well-functioning electronic procurement portals have been widely recognized. In addition to enhancing transparency, they provide equal access to markets and reduce in-person interactions that offer opportunities for corruption. Similarly, predictable and regulated bid security requirements deter suppliers from submitting frivolous offers, while allowing serious bidders to anticipate the amount needed for deposit. Timely payments encourage suppliers, particularly small and medium-size enterprises which typically do not have large cash flows, to participate in the procurement market. Finally, efficient complaint mechanisms increase the confidence of private suppliers in the fairness of the procurement process and their willingness to file a complaint.

By exposing prevailing practices and highlighting obstacles that hinder private suppliers’ access to the public market, the indicators have the potential to influence governments to undertake reforms that are necessary to promote more transparent, competitive and efficient public procurement systems. Ultimately, the objective is to create a more favorable environment for private suppliers, notably small and medium-size enterprises, by granting them a fair opportunity to access the public marketplace.

NOTES

This case study was written by Elisabeth Danon, Tania Ghossein, Maria Paula Gutierrez Casadiego and Sophie Pouget.

1. EU 2014. The European Union estimates that public procurement amounts to between 10% and 25% of GDP globally (see http://ec.europa.eu/trade/policy/accessing-markets/public-procurement/). The WTO estimates that public procurement represents between 10% and 15% of GDP. (see https://www.wto.org/english/tratop_e/gproc_e/gproc_e.htm).
2. OECD 2013b.
4. OECD 2011b.
5. Uyarra and others 2014.
7. OECD 2011b.
8. OECD 2016a.
11. For more information on the Benchmarking Public Procurement project, see the website at http://bpp.worldbank.org/.
15. For more information on the PEFA methodology see the website at https://pefa.org/.
20. OECD 2016a.
23. Lewis-Faupel and others 2014; Shingal 2015.
24. The bid security deposit is either a flat amount or a percentage of the value of the procurement contract or the bidder’s proposal.
27. OECD 2006b.
28. The data for payment delays was collected in four categories: payment delays of 0 to 30 calendar days, 31 to 90 calendar days, 91 to 180 calendar days and above 181 calendar days. This captured economies where payment delays are non-existent or reasonable (0 to 30 or 31 to 90 calendar days) or long (91 to 180 or more than 181 calendar days).


Bhagwati, Jagdish, and Arvind Panagariya. 2013. Why Growth Matters: How Economic Growth in India Reduced Poverty and the...


Okpara, John. 2011. “Corporate Governance in a Developing Economy: Barriers, Issues, and Implications for Firms.” Corporate


Swiss Proxy Advisor. 2014. “Year one after the Ordinance against Excessive Compensation, Insights and Challenges, A Survey by SWIPRA.” Zurich: Swiss Proxy Advisor.
The indicators presented and analyzed in Doing Business measure business regulation and the protection of property rights—and their effect on businesses, especially small and medium-size domestic firms. First, the indicators document the complexity of regulation, such as the number of procedures to start a business or to register a transfer of commercial property. Second, they gauge the time and cost to achieve a regulatory goal or comply with regulation, such as the time and cost to enforce a contract, go through bankruptcy or trade across borders. Third, they measure the extent of legal protections of property, for example, the protections of minority investors against looting by company directors or the range of assets that can be used as collateral according to secured transactions laws. Fourth, a set of indicators documents the tax burden on businesses. Finally, a set of data covers different aspects of employment regulation. The 11 sets of indicators measured in Doing Business were added over time, and the sample of economies and cities expanded (table 12.1).

METHODOLOGY

The Doing Business data are collected in a standardized way. To start, the Doing Business team, with academic advisers, designs a questionnaire. The questionnaire uses a simple business case to ensure comparability across economies and over time—with assumptions about the legal form of the business, its size, its location and the nature of its operations. Questionnaires are administered to more than 12,500 local experts, including lawyers, business consultants, accountants, freight forwarders, government officials and other professionals routinely administering or advising on legal and regulatory requirements (table 12.2). These experts have several rounds of interaction with the Doing Business team, involving conference calls, written correspondence and visits by the team. For Doing Business 2017 team members visited 34 economies to verify data and recruit respondents. The data from questionnaires are subjected to numerous rounds of verification, leading to revisions or expansions of the information collected.

The Doing Business methodology offers several advantages. It is transparent, using factual information about what laws and regulations say and allowing multiple interactions with local respondents to clarify potential misinterpretations of questions. Having representative samples of respondents is not an issue; Doing Business is not a statistical survey, and the texts of the relevant laws and regulations are collected and answers checked for accuracy. The methodology is inexpensive and easily replicable, so data can be collected in a large sample of economies. Because standard assumptions are used in the data collection, comparisons and benchmarks are valid across economies. Finally, the data not only highlight the extent of specific regulatory obstacles to business but also identify their source and point to what might be reformed.
LIMITS TO WHAT IS MEASURED

The Doing Business methodology has five limitations that should be considered when interpreting the data. First, for most economies the collected data refer to businesses in the largest business city (which in some economies differs from the capital) and may not be representative of regulation in other parts of the economy. (The exceptions are 11 economies with a population of more than 100 million as of 2013, where Doing Business now also collects data for the second largest business city.) To address this limitation, subnational Doing Business indicators were created (box 12.1). Second, the data often focus on a specific business form—generally a limited liability company (or its legal equivalent) of a specified size—and may not be representative of the regulation on other businesses (for example, sole proprietorships). Third, transactions described in a standardized case scenario refer to a specific set of issues and may not represent the full set of issues that a business encounters. Fourth, the measures of time involve an element of judgment by the expert respondents. When sources indicate different estimates, the time indicators reported in Doing Business represent the median values of several responses given under the assumptions of the standardized case.

Finally, the methodology assumes that a business has full information on what is required and does not waste time when completing procedures. In practice, completing a procedure may take longer if the business lacks information or is unable to follow up promptly. Alternatively, the business may choose to disregard some burdensome procedures. For both reasons the time delays reported in Doing Business 2017 would differ from the recollection of entrepreneurs reported in the World Bank Enterprise Surveys or other firm-level surveys.
Changes in What is Measured

Doing Business 2017 has three major innovations. First it expands the paying taxes indicator set to also cover postfiling processes. Paying taxes is the final indicator set to be changed as part of the methodology update initiated in Doing Business 2015. Second, three indicator sets (starting a business, registering property and enforcing contracts) were expanded to cover a gender dimension, in addition to labor markets regulation which was expanded last year. Starting a business was expanded to also measure the process of starting a business when all shareholders are women. Registering property now also measures equality in ownership rights to property. And enforcing contracts was expanded to measure equality in evidentiary weight for men and women.

Despite the changes in methodology introduced this year, the data under the old and new methodologies are highly correlated. Comparing the ease of doing business rankings as calculated using the Doing Business 2016 data and methodology with the rankings as calculated using the Doing Business 2016 data but the Doing Business 2017 methodology shows a correlation very close to 1 (table 12.3). In previous years the correlations between same-year data under the methodology for that year and the methodology for the subsequent year were even stronger.

Data Challenges and Revisions

Most laws and regulations underlying the Doing Business data are available on the Doing Business website at http://www.doingbusiness.org. All the sample questionnaires and the details underlying the indicators are also published on the website. Questions on the methodology and challenges to data can be submitted through email at rru@worldbank.org.

Doing Business publishes 24,120 indicators (120 indicators per economy) each year. To create these indicators, the team measures more than 115,000 data points, each of which is made available.
on the Doing Business website. Historical data 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 website also makes available all original data sets used for background papers. The correction rate between Doing Business 2016 and Doing Business 2017 is 7.1%.

Governments submit queries on the data and provide new information to Doing Business. During the Doing Business 2017 production cycle the team received 110 such queries from governments. In addition, the team held multiple video conferences with government representatives in 46 economies and in-person meetings with government representatives in 34 economies.

TABLE 12.3  Correlation between rankings under old and new methodologies after each set of changes in methodology

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>DB2016</td>
<td>0.999</td>
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<tr>
<td>DB2015</td>
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<tr>
<td>DB2014</td>
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<tr>
<td>DB2013</td>
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<td>0.989</td>
<td></td>
<td></td>
<td></td>
</tr>
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<td>DB2012</td>
<td></td>
<td></td>
<td></td>
<td>0.989</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DB2011</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.998</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DB2010</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.998</td>
<td></td>
</tr>
</tbody>
</table>

Source: Doing Business database.
Note: The correlation in each case is based on data for the same year but methodologies for consecutive years (for the same year as for the data and for the subsequent year). 0.999 refers to the correlation coefficient between the methodology of Doing Business 2016 and the methodology of Doing Business 2017.

Two types of local liability companies are considered under the starting a business methodology. They are identical in all aspects, except that one company is owned by five married women and other by five married men. The distance to frontier score for each indicator is the average of the scores obtained for each of the component indicators for both of these standardized companies.

After a study of laws, regulations and publicly available information on business entry, a detailed list of procedures is developed, along with the time and cost to comply with each procedure under normal circumstances and the paid-in minimum capital requirement. Subsequently, local incorporation lawyers, notaries and government officials complete and verify the data.

Information is also collected on the sequence in which procedures are to be completed and whether procedures may be carried out simultaneously. It is assumed that any required information is readily available and that the entrepreneur will pay no bribes. If answers by local experts differ, inquiries continue until the data are reconciled.

To make the data comparable across economies, several assumptions about the businesses and the procedures are used.

FIGURE 12.1  What are the time, cost, paid-in minimum capital and number of procedures to get a local limited liability company up and running?

STARTING A BUSINESS

Doing Business records all procedures officially required, or commonly done in practice, for an entrepreneur to start up and formally operate an industrial or commercial business, as well as the time and cost to complete these procedures and the paid-in minimum capital requirement (figure 12.1). These procedures include the processes entrepreneurs undergo when obtaining all necessary approvals, licenses, permits and completing any required notifications, verifications or inscriptions for the company and employees with relevant authorities. The ranking of economies on the ease of starting a business is determined by sorting their distance to frontier scores for each of the component indicators (figure 12.2). The distance to frontier score shows the distance of an economy to the “frontier,” which is derived from the most efficient practice or highest score achieved on each indicator.

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To make the data comparable across economies, several assumptions about the businesses and the procedures are used.
Assumptions about the business

The business:

- Is a limited liability company (or its legal equivalent). If there is more than one type of limited liability company in the economy, the limited liability form most common among domestic firms is chosen. Information on the most common form is obtained from incorporation lawyers or the statistical office.
- Operates in the economy’s largest business city. For 11 economies the data are also collected for the second largest business city (table 12A.1 at the end of the data notes).
- Is 100% domestically owned and has five owners, none of whom is a legal entity.
- Has start-up capital of 10 times income per capita.
- Performs general industrial or commercial activities, such as the production or sale to the public of products or services. The business does not perform foreign trade activities and does not handle products subject to a special tax regime, for example, liquor or tobacco. It is not using heavily polluting production processes.
- Leases the commercial plant or offices and is not a proprietor of real estate.
- The amount of the annual lease for the office space is equivalent to 1 times income per capita.
- The size of the entire office space is approximately 929 square meters (10,000 square feet).
- Does not qualify for investment incentives or any special benefits.
- Has at least 10 and up to 50 employees one month after the commencement of operations, all of them domestic nationals.
- Has a turnover of at least 100 times income per capita.
- Has a company deed 10 pages long.
- The owners:
  - Have reached the legal age of majority and are capable of making decisions as an adult. If there is no legal age of majority, they are assumed to be 30 years old.
  - Are sane, competent, in good health and have no criminal record.
  - Are married, the marriage is monogamous and registered with the authorities.
  - Where the answer differs according to the legal system applicable to the woman or man in question (as may be the case in economies where there is legal plurality), the answer used will be the one that applies to the majority of the population.

Procedures

A procedure is defined as any interaction of the company founders with external parties (for example, government agencies, lawyers, auditors or notaries) or spouses (if legally required). Interactions between company founders or company officers and employees are not counted as procedures. Procedures that must be completed in the same building but in different offices or at different counters are counted as separate procedures. If founders have to visit the same office several times for different sequential procedures, each is counted separately. The founders are assumed to complete all procedures themselves, without middlemen, facilitators, accountants or lawyers, unless the use of such a third party is mandated by law or solicited by the majority of entrepreneurs. If the services of professionals are required, procedures conducted by such professionals on behalf of the company are counted as separate procedures. Each electronic procedure is counted as a separate procedure. Approval from spouses to own a business or leave the home are considered procedures if required by law or if by failing to do so he or she will suffer consequences under the law, such as the loss of right to financial maintenance. Documents or permission required by only one gender for company registration and operation, opening a bank account or obtaining a national identification card are considered additional procedures. Only procedures that are required for one spouse but not the other are counted.

Both pre- and post-incorporation procedures that are officially required or commonly done in practice for an entrepreneur to formally operate a business are recorded (table 12.4). Any interaction with an external party within three months of registration will be considered a procedure, except value added tax or goods and services tax registration which will be counted whenever the assumed turnover exceeds the determined threshold.
Only procedures required of all businesses are covered. Industry-specific procedures are excluded. For example, procedures to comply with environmental regulations are included only when they apply to all businesses conducting general commercial or industrial activities. Procedures that the company undergoes to connect to electricity, water, gas and waste disposal services are not included in the starting a business indicators.

**Time**

Time is recorded in calendar days. The measure captures the median duration that incorporation lawyers or notaries indicate is necessary in practice to complete a procedure with minimum follow-up with government agencies and no unofficial payments. It is assumed that the minimum time required for each procedure is one day, except for procedures that can be fully completed online, for which the time required is recorded as half a day. Although procedures may take place simultaneously, they cannot start on the same day (that is, simultaneous procedures start on consecutive days), again with the exception of procedures that can be fully completed online. A registration process is considered completed once the company has received the final incorporation document or can officially commence business operations. If a procedure can be accelerated legally for an additional cost, the fastest procedure is chosen if that option is more beneficial to the economy’s ranking. When obtaining spouse’s approval, it is assumed that permission is granted at no additional cost unless the permission needs to be notarized. It is assumed that the entrepreneur does not waste time and commits to completing each remaining procedure without delay. The time that the entrepreneur spends on gathering information is ignored. It is assumed that the entrepreneur is aware of all entry requirements and their sequence from the beginning but has had no prior contact with any of the officials involved.

### TABLE 12.4 What do the starting a business indicators measure?

<table>
<thead>
<tr>
<th>Procedures to legally start and formally operate a company (number)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preregistration (for example, name verification or reservation, notarization)</td>
</tr>
<tr>
<td>Registration in the economy’s largest business city*</td>
</tr>
<tr>
<td>Postregistration (for example, social security registration, company seal)</td>
</tr>
<tr>
<td>Obtaining approval from spouse to start a business, to leave the home to register the company or open a bank account.</td>
</tr>
<tr>
<td>Obtaining any gender specific document for company registration and operation, national identification card or opening a bank account.</td>
</tr>
</tbody>
</table>

#### Cost

Cost is recorded as a percentage of the economy’s income per capita. It includes all official fees and fees for legal or professional services if such services are required by law or commonly used in practice. Fees for purchasing and legalizing company books are included if these procedures are required by law. Although value added tax registration can be counted as a separate procedure, value added tax is not part of the incorporation cost. The company law, the commercial code and specific regulations and fee schedules are used as sources for calculating costs. In the absence of fee schedules, a government officer’s estimate is taken as an official source. In the absence of a government officer’s estimate, estimates by incorporation lawyers are used. If several incorporation lawyers provide different estimates, the median reported value is applied. In all cases the cost excludes bribes.

#### Paid-in minimum capital

The paid-in minimum capital requirement reflects the amount that the entrepreneur needs to deposit in a bank or with a notary before registration or up to three months after incorporation and is recorded as a percentage of the economy’s income per capita. The amount is typically specified in the commercial code or the company law. Many economies require minimum capital but allow businesses to pay only a part of it before registration, with the rest to be paid after the first year of operation. In Turkey in June 2015, for example, the minimum capital requirement was 10,000 Turkish liras, of which one-fourth needed to be paid before registration. The paid-in minimum capital recorded for Turkey is therefore 2,500 Turkish liras, or 10.2% of income per capita.

### REFORMS

The starting a business indicator set tracks changes related to the ease of incorporating and formally operating a limited liability company every year. Depending on the impact on the data, certain changes are classified as reforms and listed in the summaries of Doing Business reforms in the 2015/2016 section of the report in order to acknowledge the implementation of significant changes. Reforms are divided into two types: those that make it easier to do business and those changes that make it more difficult to do business. The starting a business indicator set uses one criterion to recognize a reform.

The aggregate gap on the overall distance to frontier of the indicator set is used to assess the impact of data changes. Any data update that leads to a change of two or more percentage points on the relative distance to frontier gap is classified as a reform (for more details on the relative
DEALING WITH CONSTRUCTION PERMITS

Doing Business records all procedures required for a business in the construction industry to build a warehouse, along with the time and cost to complete each procedure. In addition, Doing Business measures the building quality control index, evaluating the quality of building regulations, the strength of quality control and safety mechanisms, liability and insurance regimes, and professional certification requirements. Information is collected through a questionnaire administered to experts in construction licensing, including architects, civil engineers, construction lawyers, construction firms, utility service providers, and public officials who deal with building regulations, including approvals, permit issuance, and inspections.

The ranking of economies on the ease of dealing with construction permits is determined by sorting their distance to frontier scores for dealing with construction permits. These scores are the simple average of the distance to frontier scores for each of the component indicators (figure 12.3).

EFFICIENCY OF CONSTRUCTION PERMITTING

Doing Business divides the process of building a warehouse into distinct procedures in the questionnaire and solicits data for calculating the time and cost to complete each procedure (figure 12.4). These procedures include, but are not limited to:

- Obtaining and submitting all relevant project-specific documents (for example, building plans, site maps and certificates of urbanism) to the authorities.
- Hiring external third-party supervisors, consultants, engineers or inspectors (if necessary).
- Obtaining all necessary clearances, licenses, permits and certificates.
- Submitting all required notifications.
- Requesting and receiving all necessary inspections (unless completed by a hired private, third-party inspector).

Doing Business also records procedures for obtaining connections for water and sewerage. Procedures necessary to register the warehouse so that it can be used as collateral or transferred to another entity are also counted.

To make the data comparable across economies, several assumptions about the construction company, the warehouse project and the utility connections are used.

Assumptions about the construction company

- Is a limited liability company (or its legal equivalent);
- Operates in the economy’s largest business city. For 11 economies the data are also collected for the second largest business city (table 12A.1);
- Is 100% domestically and privately owned;
- Has five owners, none of whom is a legal entity;
• Is fully licensed and insured to carry out construction projects, such as building warehouses;
• Has 60 builders and other employees, all of them nationals with the technical expertise and professional experience necessary to obtain construction permits and approvals;
• Has a licensed architect and a licensed engineer, both registered with the local association of architects or engineers. BuildCo is not assumed to have any other employees who are technical or licensed specialists, such as geological or topographical experts;
• Has paid all taxes and taken out all necessary insurance applicable to its general business activity (for example, accidental insurance for construction workers and third-person liability);
• Owns the land on which the warehouse will be built and will sell the warehouse upon its completion.

Assumptions about the warehouse
The warehouse:
• Will be used for general storage activities, such as storage of books or stationery. The warehouse will not be used for any goods requiring special conditions, such as food, chemicals, or pharmaceuticals;
• Will have two stories, both above ground, with a total constructed area of approximately 1,300.6 square meters (14,000 square feet). Each floor will be 3 meters (9 feet, 10 inches) high;
• Will have road access and be located in the periurban area of the economy’s largest business city (that is, on the fringes of the city but still within its official limits). For 11 economies the data are also collected for the second largest business city;
• Will not be located in a special economic or industrial zone;
• Will be located on a land plot of approximately 929 square meters (10,000 square feet) that is 100% owned by BuildCo and is accurately registered in the cadastre and land registry;
• Is valued at 50 times income per capita;
• Will be a new construction (with no previous construction on the land), with no trees, natural water sources, natural reserves, or historical monuments of any kind on the plot;
• Will have complete architectural and technical plans prepared by a licensed architect. If preparation of the plans requires such steps as obtaining further documentation or getting prior approvals from external agencies, these are counted as procedures;
• Will include all technical equipment required to be fully operational;
• Will take 30 weeks to construct (excluding all delays due to administrative and regulatory requirements);

Assumptions about the utility connections
The water and sewerage connections:
• Will be 150 meters (492 feet) from the existing water source and sewer tap. If there is no water delivery infrastructure in the economy, a borehole will be dug. If there is no sewerage infrastructure, a septic tank in the smallest size available will be installed or built;
• Will not require water for fire protection reasons; a fire extinguishing system (dry system) will be used instead. If a wet fire protection system is required by law, it is assumed that the water demand specified below also covers the water needed for fire protection;
• Will have an average water use of 662 liters (175 gallons) a day and an average wastewater flow of 568 liters (150 gallons) a day. Will have a peak water use of 1,325 liters (350 gallons) a day and a peak wastewater flow of 1,136 liters (300 gallons) a day;
• Will have a constant level of water demand and wastewater flow throughout the year;
• Will be 1 inch in diameter for the water connection and 4 inches in diameter for the sewerage connection.

Procedures
A procedure is any interaction of the building company’s employees, managers, or any party acting on behalf of the company with external parties, including government agencies, notaries, the land registry, the cadastre, utility companies, and public inspectors—and the hiring of external private inspectors and technical experts where needed. Interactions between company employees, such as development of the warehouse plans and internal inspections, are not counted as procedures. However, interactions with external parties that are required for the architect to prepare the plans and drawings (such as obtaining topographic or geological surveys), or to have such documents approved or stamped by external parties, are counted as procedures. Procedures that the company undergoes to connect the warehouse to water and sewerage are included. All procedures that are legally required and that are done in practice by the majority of companies to build a warehouse are counted, even if they may be avoided in exceptional cases. This includes obtaining technical conditions for electricity or clearance of the electrical plans only if they are required to obtain a building permit (table 12.5).

Time
Time is recorded in calendar days. The measure captures the median duration that local experts indicate is necessary to complete a procedure in practice. It is assumed that the minimum time required for each procedure is one day, except for procedures that can be fully completed online, for which the time required is recorded as half a day. Although procedures may take place simultaneously, they cannot start on the same day (that is, simultaneous procedures start on consecutive days), again with the exception of procedures that can be fully completed online. If a procedure can be accelerated legally for an additional cost and the accelerated procedure is used by the majority of companies, the fastest time to complete a procedure is chosen. It is
Whether building regulations are eas-
Whether the requirements for obtaining
Whether by law, a licensed architect
Do not include time spent gathering
Each procedure starts on a separate day—
Procedure considered completed once final
No prior contact with officials
Cost required to complete each procedure (% of warehouse value)
Official costs only, no bribes
assumed that BuildCo does not waste
assumed that BuildCo is aware of all
assumed that BuildCo does not waste
time and commits to completing each
remaining procedure without delay. The
time that BuildCo spends on gathering
information is not taken into account. It
is assumed that BuildCo is aware of all
building requirements and their sequence
from the beginning.

Cost
Cost is recorded as a percentage of the
warehouse value (assumed to be 50
times income per capita). Only official
costs are recorded. All fees associated
with completing the procedures to legally
build a warehouse are recorded, including
those associated with obtaining land use
approvals and preconstruction design
clearances; receiving inspections before,
during and after construction; obtain-
ing utility connections; and registering
the warehouse at the property registry.
Nonrecurring taxes required for the com-
pletion of the warehouse project are also
recorded. Sales taxes (such as value added
tax) or capital gains taxes are not recorded.

Nor are deposits that must be paid up
front and are later refunded. The building
code, information from local experts, and
specific regulations and fee schedules
are used as sources for costs. If several
local partners provide different estimates,
the median reported value is used.

BUILDING QUALITY CONTROL

The building quality control index is based
on six other indices—the quality of build-
ing regulations, quality control before,
during and after construction, liability and
insurance regimes, and professional certi-
fications indices (table 12.6). The indicator
is based on the same case study assump-
tions as the measures of efficiency.

Quality of building regulations index

The quality of building regulations index
has two components:

- Whether building regulations are eas-
  ily accessible. A score of 1 is assigned
  if building regulations (including the
  building code) or regulations dealing
  with construction permits are avail-
  able on a website that is updated as
  new regulations are passed; 0.5 if the
  building regulations are available free
  of charge (or for a nominal fee) at the
  relevant permit-issuing authority; 0 if
  the building regulations must be pur-
  chased or if they are not made easily
  accessible anywhere.

- Whether the requirements for obtaining
  a building permit are clearly specified.
  A score of 1 is assigned if the building
  regulations (including the building code)
or any accessible website, brochure,
or pamphlet clearly specifies the list of
required documents to submit, the fees
to be paid, and all required preapprovals
of the drawings or plans by the relevant
agencies; 0 if none of these sources
specify any of these requirements or if
these sources specify fewer than the
three requirements mentioned above.

The index ranges from 0 to 2, with
higher values indicating clearer and more
transparent building regulations. In the
United Kingdom, for example, all relevant
legislation can be found on an official
government website (a score of 1). The
legislation specifies the list of required
documents to submit, the fees to be paid,
and all required preapprovals of the draw-
ings or plans by the relevant agencies
(a score of 1). Adding these numbers
gives the United Kingdom a score of 2 on
the quality of building regulations index.

Quality control before
construction index

The quality control before construction
index has one component:

- Whether by law, a licensed architect
  or licensed engineer is part of the

| TABLE 12.5 What do the indicators on
  the efficiency of construction permitting
  measure? |
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Procedures to legally build a warehouse (number)</td>
</tr>
<tr>
<td>Submitting all relevant documents and obtaining</td>
</tr>
<tr>
<td>all necessary clearances, licenses, permits and</td>
</tr>
<tr>
<td>certificates</td>
</tr>
<tr>
<td>Submitting all required notifications and receiving</td>
</tr>
<tr>
<td>all necessary inspections</td>
</tr>
<tr>
<td>Obtaining utility connections for water and</td>
</tr>
<tr>
<td>sewerage</td>
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<tr>
<td>Registering the warehouse after its completion</td>
</tr>
<tr>
<td>(if required for use as collateral or for transfer of</td>
</tr>
<tr>
<td>the warehouse)</td>
</tr>
<tr>
<td>Time required to complete each procedure (calendar days)</td>
</tr>
<tr>
<td>Does not include time spent gathering information</td>
</tr>
<tr>
<td>Each procedure starts on a separate day—though procedures that can be fully completed online are an exception to this rule</td>
</tr>
<tr>
<td>Procedure considered completed once final document is received</td>
</tr>
<tr>
<td>No prior contact with officials</td>
</tr>
<tr>
<td>Cost required to complete each procedure (% of warehouse value)</td>
</tr>
<tr>
<td>Official costs only, no bribes</td>
</tr>
</tbody>
</table>

| TABLE 12.6 What do the indicators on
  building quality control measure? |
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Quality of building regulations index (0–2)</td>
</tr>
<tr>
<td>Accessibility of building regulations</td>
</tr>
<tr>
<td>Clarity of requirements for obtaining a building permit</td>
</tr>
<tr>
<td>Quality control before construction index (0–1)</td>
</tr>
<tr>
<td>Whether licensed or technical experts approve building plans</td>
</tr>
<tr>
<td>Quality control during construction index (0–3)</td>
</tr>
<tr>
<td>Types of inspections legally mandated during construction</td>
</tr>
<tr>
<td>Implementation of legally mandated inspections in practice</td>
</tr>
<tr>
<td>Quality control after construction index (0–3)</td>
</tr>
<tr>
<td>Final inspection legally mandated after construction</td>
</tr>
<tr>
<td>Implementation of legally mandated final inspection in practice</td>
</tr>
<tr>
<td>Liability and insurance regimes index (0–2)</td>
</tr>
<tr>
<td>Parties held legally liable for structural flaws after building occupancy</td>
</tr>
<tr>
<td>Parties legally mandated to obtain insurance to cover structural flaws after building occupancy or insurance is commonly obtained in practice</td>
</tr>
<tr>
<td>Professional certifications index (0–4)</td>
</tr>
<tr>
<td>Qualification requirements for individual who approves building plans</td>
</tr>
<tr>
<td>Qualification requirements for individual who supervises construction or conducts inspections</td>
</tr>
<tr>
<td>Building quality control index (0–15)</td>
</tr>
<tr>
<td>Sum of the quality of building regulations, quality control before construction, quality control during construction, quality control after construction, liability and insurance regimes, and professional certifications indices</td>
</tr>
</tbody>
</table>
committee or team that reviews and approves building permit applications and whether that person has the authority to refuse an application if the plans are not in conformity with regulations. A score of 1 is assigned if the national association of architects or engineers (or its equivalent) must review the building plans, if an independent firm or expert who is a licensed architect or engineer must review the plans, if the architect or engineer who prepared the plans must submit an attestation to the permit-issuing authority stating that the plans are in compliance with the building regulations or if a licensed architect or engineer is part of the committee or team that approves the plans at the relevant permit-issuing authority; 0 if no licensed architect or engineer is involved in the review of the plans to ensure their compliance with building regulations.

The index ranges from 0 to 1, with higher values indicating better quality control in the review of the building plans. In Rwanda, for example, the city hall in Kigali must review the building permit application, including the plans and drawings, and both a licensed architect and a licensed engineer are part of the team that reviews the plans and drawings. Rwanda therefore receives a score of 1 on the quality control before construction index.

Quality control during construction index
The quality control during construction index has two components:

- Whether inspections are mandated by law during the construction process. A score of 2 is assigned if an in-house supervising engineer or an external supervising engineer or an external inspections firm is legally mandated to conduct technical inspections at different stages during the construction of the building or if a government agency is legally mandated to conduct only technical inspections at different stages during the construction. A score of 0 is assigned if a government agency is legally mandated to conduct unscheduled inspections, or if no technical inspections are mandated by law.
- Whether the final inspection is implemented in practice. A score of 1 is assigned if the legally mandated final inspection after construction always occurs in practice or if a supervising engineer or firm attests that the building has been built in accordance with the approved plans and existing building regulations. A score of 2 is assigned if the legally mandated final inspection occurs most of the time but not always, if inspections are not mandated by law regardless of whether or not they commonly occur in practice.

The index ranges from 0 to 3, with higher values indicating better quality control after the construction process. In Antigua and Barbuda, for example, the Development Control Authority is legally mandated to conduct phased inspections under the Physical Planning Act of 2003 (a score of 1). However, the Development Control Authority rarely conducts these inspections in practice (a score of 0). Adding these numbers gives Antigua and Barbuda a score of 1 on the quality control during construction index.

Quality control after construction index
The quality control after construction index has two components:

- Whether a final inspection is mandated by law in order to verify that the building was built in compliance with the approved plans and existing building regulations. A score of 2 is assigned if an in-house supervising engineer (that is, an employee of the building company), an external supervising engineer or an external inspections firm is legally mandated to verify that the building has been built in accordance with the approved plans and existing building regulations, or if a government agency is legally mandated to conduct a final inspection upon completion of the building; 0 if no final inspection is mandated by law after construction and no third party is required to verify that the building has been built in accordance with the approved plans and existing building regulations.
- Whether the final inspection is implemented in practice. A score of 1 is assigned if the legally mandated final inspection after construction always occurs in practice or if a supervising engineer or firm attests that the building has been built in accordance with the approved plans and existing building regulations; 0 if the legally mandated final inspection does not occur in practice, if the legally mandated final inspection occurs most of the time but not always, or if a final inspection is not mandated by law regardless of whether or not it commonly occurs in practice.

The index ranges from 0 to 3, with higher values indicating better quality control after the construction process. In Haiti, for example, the Municipality of Port-au-Prince is legally mandated to conduct a final inspection under the National Building Code of 2012 (a score of 2). However, the final inspection does not occur in practice (a score of 0). Adding these numbers gives Haiti a score of 2 on the quality control after construction index.

Liability and insurance regimes index
The liability and insurance regimes index has two components:

- Whether any parties involved in the construction process are held legally liable for latent defects such as structural flaws or problems in the building once it is in use. A score of 1 is assigned if at least two of the following parties are held legally liable for structural flaws or problems in the building once it is in use: the architect or engineer who designed the plans for the
building, the professional or agency that conducted technical inspections, or the construction company; 0.5 if only one of the parties is held legally liable for structural flaws or problems in the building once it is in use; 0 if no party is held legally liable for structural flaws or problems in the building once it is in use, if the project owner or investor is the only party held liable, if liability is determined in court, or if liability is stipulated in a contract.

- Whether any parties involved in the construction process is legally required to obtain a latent defect liability—or decennial (10 years) liability—insurance policy to cover possible structural flaws or problems in the building once it is in use. A score of 1 is assigned if the architect or engineer who designed the plans for the building, the professional or agency that conducted the technical inspections, the construction company, or the project owner or investor is required by law to obtain either a decennial liability insurance policy or a latent defect liability insurance policy to cover possible structural flaws or problems in the building once it is in use or if a decennial liability insurance policy or a latent defect liability insurance is commonly obtained in practice by the majority of any of these parties even if not required by law; a score of 0 is assigned if no party is required by law to obtain either a decennial liability insurance or a latent defect liability insurance and such insurance is not commonly obtained in practice by any party, if the requirement to obtain an insurance policy is stipulated in a contract, if any party must obtain a professional insurance or an all risk insurance to cover the safety of workers or any other defects during construction but not a decennial liability insurance or a latent defect liability insurance that would cover defects after the building is in use, or if any party is required to pay for any damages caused on their own without having to obtain an insurance policy.

The index ranges from 0 to 2, with higher values indicating more stringent latent defect liability and insurance regimes. In Madagascar, for example, under article 1792 of the Civil Code both the architect who designed the plans and the construction company are legally held liable for latent defects for a period of 10 years after the completion of the building (a score of 1). However, there is no legal requirement for any party to obtain a decennial liability insurance policy to cover structural defects, nor do most parties obtain such insurance in practice (a score of 0). Adding these numbers gives Madagascar a score of 1 on the liability and insurance regimes index.

**Professional certifications index**

The professional certifications index has two components:

- The qualification requirements of the professional responsible for verifying that the architectural plans or drawings are in compliance with the building regulations. A score of 2 is assigned if this professional must have a minimum number of years of practical experience, must have a university degree (a minimum of a bachelor’s) in architecture or engineering, and must also either be a registered member of the national order (association) of architects or engineers or pass a qualification exam. A score of 1 is assigned if the professional must have a university degree (a minimum of a bachelor’s) in architecture or engineering and must also either have a minimum number of years of practical experience or be a registered member of the national order (association) of architects or engineers or pass a qualification exam. A score of 0 is assigned if the professional must meet only one of the requirements, if the professional must meet two of the requirements but neither of the two is to have a university degree, or if the professional is subject to no qualification requirements.

The index ranges from 0 to 4, with higher values indicating greater professional certification requirements. In Cambodia, for example, the professional responsible for verifying that the architectural plans or drawings are in compliance with the building regulations must have a relevant university degree and must pass a qualification exam (a score of 1). However, the professional conducting technical inspections during construction must only have a university degree (a score of 0). Adding these numbers gives Cambodia a score of 1 on the professional certifications index.

**Building quality control index**

The building quality control index is the sum of the scores on the quality of building regulations, quality control before construction, quality control during construction, quality control after construction, liability and insurance regimes, and professional certifications indices. The index ranges from 0 to 15, with higher values indicating better quality control and safety mechanisms in the construction regulatory system.
If an economy issued no building permits between June 2015 and June 2016 or if the applicable building legislation in the economy is not being implemented, the economy receives a “no practice” mark on the procedures, time and cost indicators. In addition, a “no practice” economy receives a score of 0 on the building quality control index even if its legal framework includes provisions related to building quality control and safety mechanisms.

**REFORMS**

The dealing with construction permits indicator set tracks changes related to the efficiency and quality of construction permitting systems every year. Depending on the impact on the data certain changes are classified as reforms and listed in the summaries of Doing Business reforms in 2015/2016 section of the report in order to acknowledge the implementation of significant changes. Reforms are divided into two types: those that make it easier to do business and those changes that make it more difficult to do business. The dealing with construction permits indicator set uses only one criterion to recognize a reform.

The aggregate gap on the overall distance to frontier of the indicator set is used to assess the impact of data changes. Any data update that leads to a change of 2 or more percentage points on the relative distance to frontier gap is classified as a reform (for more details on the relative gap, see the chapter on the distance to frontier and ease of doing business ranking). For example if the implementation of a new electronic permitting system reduces time in a way that the overall relative gap decreases by 2 percentage points or more, such a change is classified as a reform. On the contrary, minor fee updates or other smaller changes in the indicators that have an aggregate impact of less than 2 percentage points on the relative gap are not classified as a reform, but their impact is still reflected on the most updated indicators for this indicator set.

The data details on dealing with construction permits can be found for each economy at http://www.doingbusiness.org.

**GETTING ELECTRICITY**

Doing Business records all procedures required for a business to obtain a permanent electricity connection and supply for a standardized warehouse (figure 12.5). These procedures include applications and contracts with electricity utilities, all necessary inspections and clearances from the distribution utility and other agencies, and the external and final connection works. The questionnaire divides the process of getting an electricity connection into distinct procedures and solicits data for calculating the time and cost to complete each procedure.

In addition, Doing Business also measures the reliability of supply and transparency of tariffs index (included in the aggregate distance to frontier score and ranking on the ease of doing business) and the price of electricity (omitted from these aggregate measures). The reliability of supply and transparency of tariffs index encompasses quantitative data on the duration and frequency of power outages as well as qualitative information on the mechanisms put in place by the utility for monitoring power outages and restoring power supply, the reporting relationship between the utility and the regulator for power outages, the transparency and accessibility of tariffs and whether the utility faces a financial deterrent aimed at limiting outages (such as a requirement to compensate customers or pay fines when outages exceed a certain cap).

The ranking of economies on the ease of getting electricity is determined by sorting their distance to frontier scores for getting electricity. These scores are the simple average of the distance to frontier scores for all the component indicators except the price of electricity (figure 12.6).

Data on reliability of supply are collected from the electricity distribution utilities or regulators, depending upon the specific technical nature of the data. The rest of the data, including data on transparency of tariffs and procedures for obtaining electricity connection, are collected from all market players—the electricity distribution utility, electricity regulatory agencies and independent professionals such as electrical engineers, electrical contractors and construction companies. The electricity distribution utility consulted is the one serving the area (or areas) where warehouses are located. If there is a choice of distribution utilities, the one serving the largest number of customers is selected.
To make the data comparable across economies, several assumptions about the warehouse, the electricity connection and the monthly consumption are used.

**Assumptions about the warehouse**
The warehouse:
- Is owned by a local entrepreneur.
- Is located in the economy’s largest business city. For 11 economies the data are also collected for the second largest business city (table 12A.1).
- Is located in an area where similar warehouses are typically located. In this area a new electricity connection is not eligible for a special investment promotion regime (offering special subsidization or faster service, for example).
- Is located in an area with no physical constraints. For example, the property is not near a railway.
- Is a new construction and is being connected to electricity for the first time.
- Has two stories, both above ground, with a total surface area of approximately 1,300.6 square meters (14,000 square feet). The plot of land on which it is built is 929 square meters (10,000 square feet).
- Is used for storage of goods.

**Assumptions about the electricity connection**
The electricity connection:
- Is a permanent one.
- Is a three-phase, four-wire Y connection with a subscribed capacity of 140 kilowatt-ampere (kVA) with a power factor of 1, when 1 kVA = 1 kilowatt (kW).
- Has a length of 150 meters. The connection is to either the low- or medium-voltage distribution network and is either overhead or underground, whichever is more common in the area where the warehouse is located.
- Requires works that involve the crossing of a 10-meter wide road (by excavation, overhead lines) but are all carried out on public land. There is no crossing of other owners’ private property because the warehouse has access to a road.
- Includes only negligible length in the customer’s private domain.
- Does not require work to install the internal wiring of the warehouse. This has already been completed up to and including the customer’s service panel or switchboard and the meter base.

**Assumptions about the monthly consumption for March**
- It is assumed that the warehouse operates 30 days a month from 9:00 a.m. to 5:00 p.m. (8 hours a day), with equipment utilized at 80% of capacity on average and that there are no electricity cuts (assumed for simplicity reasons).
- The monthly energy consumption is 26,880 kilowatt-hours (kWh); hourly consumption is 112 kWh.
- If multiple electricity suppliers exist, the warehouse is served by the cheapest supplier.
- Tariffs effective in March of the current year are used for calculation of the price of electricity for the warehouse. Although March has 31 days, for calculation purposes only 30 days are used.

**Procedures**
A procedure is defined as any interaction of the company’s employees or its main electrician or electrical engineer (that is, the one who may have done the internal wiring) with external parties, such as the electricity distribution utility, electricity supply utilities, government agencies, electrical contractors and electrical firms. Interactions between company employees and steps related to the internal electrical wiring, such as the design and execution of the internal electrical installation plans, are not counted as procedures. Procedures that must be completed with the same utility but with different departments are counted as separate procedures (table 12.7).

The company’s employees are assumed to complete all procedures themselves unless the use of a third party is mandated (for example, if only an electrician registered with the utility is allowed to submit an application). If the company can, but is not required to, request the services of professionals (such as a private firm rather than the utility for the external works), these procedures are recorded if they are commonly done. For all procedures only the most likely cases (for example, more than 50% of the time the utility has the material) and those followed in practice for connecting a warehouse to electricity are counted.

**Time**
Time is recorded in calendar days. The measure captures the median duration that the electricity utility and experts indicate is necessary in practice, rather than required by law, to complete a procedure with minimum follow-up and no extra payments. It is assumed that the minimum time required for each procedure is one day. Although procedures may take place simultaneously, they cannot start on the same day (that is, simultaneous procedures start on consecutive days). It is assumed that the company does not waste time and commits to completing each remaining procedure without delay. The time that the company spends on...
TABLE 12.7  What do the getting electricity indicators measure?

<table>
<thead>
<tr>
<th>Procedures to obtain an electricity connection (number)</th>
<th>Submitting all relevant documents and obtaining all necessary clearances and permits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Completing all required notifications and receiving all necessary inspections</td>
</tr>
<tr>
<td></td>
<td>Obtaining external installation works and possibly purchasing material for these works</td>
</tr>
<tr>
<td></td>
<td>Concluding any necessary supply contract and obtaining final supply</td>
</tr>
<tr>
<td>Time required to complete each procedure (calendar days)</td>
<td>Is at least one calendar day</td>
</tr>
<tr>
<td></td>
<td>Each procedure starts on a separate day</td>
</tr>
<tr>
<td></td>
<td>Does not include time spent gathering information</td>
</tr>
<tr>
<td></td>
<td>Reflects the time spent in practice, with little follow-up and no prior contact with officials</td>
</tr>
<tr>
<td>Cost required to complete each procedure (% of income per capita)</td>
<td>Official costs only, no bribes</td>
</tr>
<tr>
<td></td>
<td>Value added tax excluded</td>
</tr>
<tr>
<td>Reliability of supply and transparency of tariffs index (0–8)</td>
<td>Duration and frequency of power outages</td>
</tr>
<tr>
<td></td>
<td>Tools to monitor power outages</td>
</tr>
<tr>
<td></td>
<td>Tools to restore power supply</td>
</tr>
<tr>
<td></td>
<td>Regulatory monitoring of utilities’ performance</td>
</tr>
<tr>
<td></td>
<td>Financial deterrents aimed at limiting outages</td>
</tr>
<tr>
<td></td>
<td>Transparency and accessibility of tariffs</td>
</tr>
<tr>
<td>Price of electricity (cents per kilowatt-hour)</td>
<td>Price based on monthly bill for commercial warehouse in case study</td>
</tr>
</tbody>
</table>

Note: While Doing Business measures the price of electricity, it does not include these data when calculating the distance to frontier score for getting electricity or the ranking on the ease of getting electricity.

gathering information is not taken into account. It is assumed that the company is aware of all electricity connection requirements and their sequence from the beginning.

Cost
Cost is recorded as a percentage of the economy’s income per capita. Costs are recorded exclusive of value added tax. All the fees and costs associated with completing the procedures to connect a warehouse to electricity are recorded, including those related to obtaining clearances from government agencies, applying for the connection, receiving inspections of both the site and the internal wiring, purchasing material, getting the actual connection works and paying a security deposit. Information from local experts and specific regulations and fee schedules are used as sources for costs. If several local partners provide different estimates, the median reported value is used. In all cases the cost excludes bribes.

Security deposit
Utilities may require security deposits as a guarantee against the possible failure of customers to pay their consumption bills. For this reason the security deposit for a new customer is most often calculated as a function of the customer’s estimated consumption.

Doing Business does not record the full amount of the security deposit. If the deposit is based on the customer’s actual consumption, this basis is the one assumed in the case study. Rather than the full amount of the security deposit, Doing Business records the present value of the losses in interest earnings experienced by the customer because the utility holds the security deposit over a prolonged period, in most cases until the end of the contract (assumed to be after five years). In cases where the security deposit is used to cover the first monthly consumption bills, it is not recorded. To calculate the present value of the lost interest earnings, the end-2015 lending rates from the International Monetary Fund’s *International Financial Statistics* are used. In cases where the security deposit is returned with interest, the difference between the lending rate and the interest paid by the utility is used to calculate the present value.

In some economies the security deposit can be put up in the form of a bond: the company can obtain from a bank or an insurance company a guarantee issued on the assets it holds with that financial institution. In contrast to the scenario in which the customer pays the deposit in cash to the utility, in this scenario the company does not lose ownership control over the full amount and can continue using it. In return the company will pay the bank a commission for obtaining the bond. The commission charged may vary depending on the credit standing of the company. The best possible credit standing and thus the lowest possible commission are assumed. Where a bond can be put up, the value recorded for the deposit is the annual commission times the five years assumed to be the length of the contract. If both options exist, the cheaper alternative is recorded.

In Honduras in June 2016 a customer requesting a 140-kVA electricity connection would have had to put up a security deposit of 126,894 Honduran lempiras ($5,616) in cash or check, and the deposit would have been returned only at the end of the contract. The customer could instead have invested this money at the prevailing lending rate of 20.66%. Over the five years of the contract this would imply a present value of lost interest earnings of 77,273 lempiras ($3,420).

In contrast, if the customer chose to settle the deposit with a bank guarantee at an annual rate of 2.5%, the amount lost over the five years would be just 15,862 lempiras ($702).

Reliability of supply and transparency of tariffs index
Doing Business uses the system average interruption duration index (SAIDI) and the system average interruption frequency index (SAIFI) to measure the duration and frequency of power outages in the largest business city of each economy (for 11 economies the data are also collected for the second largest business city; table 12A.1). SAIDI is the average total duration of outages over the course of a year for each customer served, while SAIFI is the average number of service interruptions experienced by a customer in a year. Annual data (covering the calendar year) are collected from distribution utility companies and
national regulators on SAIDI and SAIFI. Both SAIDI and SAIFI estimates include load shedding.

An economy is eligible to obtain a score on the reliability of supply and transparency of tariffs index if the utility collects data on electricity outages (measuring the average total duration of outages per customer and the average number of outages per customer) and the SAIDI value is below a threshold of 100 hours and the SAIFI value below a threshold of 100 outages.

Because the focus is on measuring the reliability of the electricity supply in each economy’s largest business city (and, in 11 economies, also in the second largest business city), an economy is not eligible to obtain a score if outages are too frequent or long-lasting for the electricity supply to be considered reliable—that is, if the SAIDI value exceeds the threshold of 100 hours or the SAIFI value exceeds the threshold of 100 outages. An economy is also not eligible to obtain a score on the index if data on power outages are not collected.

For all economies that meet the criteria as determined by Doing Business, a score on the reliability of supply and transparency of tariffs index is calculated on the basis of the following six components:

- What the SAIDI and SAIFI values are. If SAIDI and SAIFI are 12 (equivalent to an outage of one hour each month) or below, a score of 1 is assigned. If SAIDI and SAIFI are 4 (equivalent to an outage of one hour each quarter) or below, 1 additional point is assigned. Finally, if SAIDI and SAIFI are 1 (equivalent to an outage of one hour per year) or below, 1 more point is assigned.
- What tools are used by the distribution utility to monitor power outages. A score of 1 is assigned if the utility uses automated tools, such as the Supervisory Control and Data Acquisition (SCADA) system, 0 if it relies solely on manual tools for service restoration, such as field crews or maintenance personnel.
- What tools are used by the distribution utility to restore power supply. A score of 1 is assigned if the utility uses automated tools, such as the SCADA system; 0 if it relies solely on manual resources for service restoration, such as field crews or maintenance personnel.
- Whether a regulator—that is, an entity separate from the utility—monitors the utility’s performance on reliability of supply. A score of 1 is assigned if the regulator performs periodic or real-time reviews; 0 if it does not monitor power outages and does not require the utility to report on reliability of supply.
- Whether financial deterrents exist to limit outages. A score of 1 is assigned if the utility compensates customers when outages exceed a certain cap, if the utility is fined by the regulator when outages exceed a certain cap or if both these conditions are met; 0 if no compensation mechanism of any kind is available.
- Whether electricity tariffs are transparent and easily available. A score of 1 is assigned if effective tariffs are available online and customers are notified of a change in tariff a full billing cycle (that is, one month) ahead of time; 0 if not.

The index ranges from 0 to 8, with higher values indicating greater reliability of electricity supply and greater transparency of tariffs. In the Czech Republic, for example, the distribution utility company PREdistribuce uses SAIDI and SAIFI metrics to monitor and collect data on power outages. In 2015 the average total duration of power outages in Prague was 0.49 hours per customer and the average number of outages experienced by a customer was 0.33. Both SAIDI and SAIFI are below the threshold and indicate that there was less than one outage a year per customer, for a total duration of less than one hour. So the economy not only meets the eligibility criteria for obtaining a score on the index, it also receives a score of 3 on the first component of the index. The utility uses an automated system (SCADA) to identify faults in the network (a score of 1) and restore electricity service (a score of 1).

On the other hand, several economies receive a score of 0 on the reliability of supply and transparency of tariffs index. The reason may be that outages occur more than once a month and none of the mechanisms and tools measured by the index are in place. An economy may also receive a score of 0 if either the SAIDI or SAIFI value (or both) exceeds the threshold of 100. For Papua New Guinea, for example, the SAIDI value (211) exceeds the threshold. Based on the criteria established, Papua New Guinea cannot receive a score on the index even though the country has regulatory monitoring of outages and there is a compensation mechanism for customers.

If an economy issued no new electricity connections to an electrical grid between June 2015 and June 2016, or if electricity is not provided during that period, the economy receives a “no practice” mark on the procedures, time and cost indicators. In addition, a “no practice” economy receives a score of 0 on the reliability of supply and transparency of tariff index even if the utility has in place automated systems for monitoring and restoring outages; there is regulatory oversight of utilities on power interruptions, and public availability of tariffs.

**Price of electricity**

*Doing Business* measures the price of electricity but does not include these data.
when calculating the distance to frontier score for getting electricity or the ranking on the ease of getting electricity. (The data are available on the Doing Business website, at http://www.doingbusiness.org.) The data on electricity prices are based on standardized assumptions to ensure comparability across economies.

The price of electricity is measured in U.S. cents per kilowatt-hour. On the basis of the assumptions about monthly consumption, a monthly bill for a commercial warehouse in the largest business city of the economy is computed for the month of March (for 11 economies the data are also collected for the second largest business city; table 12A.1). As noted, the warehouse uses electricity 30 days a month, from 9:00 a.m. to 5:00 p.m., so different tariff schedules may apply if a time-of-use tariff is available.

REFORMS

The getting electricity indicator set tracks changes related to the efficiency of the connection process, as well as the reliability of power supply and transparency of tariffs. Depending on the impact on the data, certain changes are classified as reforms and listed in the summaries of Doing Business reforms in 2015/2016 section of the report in order to acknowledge the implementation of significant changes. Reforms are divided in two types: those that make it easier to do business and those changes that make it more difficult to do business. The getting electricity indicator set uses two criteria to recognize a reform.

First, the aggregate gap on the overall distance to frontier of the indicator set is used to assess the impact of data changes. Any data update that leads to a change of 2 or more percentage points on the relative distance to frontier gap is classified as a reform (for more details on the relative gap, see the chapter on the distance to frontier and ease of doing business ranking). For example if the implementation of a new single window at the utility reduces the time to process new connection requests in a way that the overall relative gap decreases by 2 percentage points or more, such a change is classified as a reform. On the other hand, minor fee updates from the utility or other small changes that have an aggregate impact of less than 2 percentage points on the relative gap are not classified as a reform, but their impact is still reflected on the most updated indicators for this topic.

Second, to be considered a reform, changes in the data must be tied to an initiative led by the utility or by the government—and not an exogenous event. For example if outages increase considerably from one year to the next due to inclement weather, this cannot be considered a reform that makes doing business easier. Similarly, if the cost of electricity-related materials (such as cabling or transformers) decreases due to a currency appreciation, this cannot be considered a reform that makes doing business easier. However, if a utility establishes a one-stop shop to streamline the connection process or if it installs an automated system to improve monitoring of power outages and restoration of electricity services, these actions would be considered reforms that made doing business easier.

The data details on getting electricity can be found for each economy at http://www.doingbusiness.org. The initial methodology was developed by Geginat and Ramalho (2015) and is adopted here with minor changes.

EFFICIENCY OF TRANSFERRING PROPERTY

As recorded by Doing Business, the process of transferring property starts with obtaining the necessary documents, such as a copy of the seller’s title if necessary, and conducting due diligence if required. The transaction is considered complete when it is opposable to third parties and when the buyer

FIGURE 12.7 Registering property: efficiency and quality of land administration system

<table>
<thead>
<tr>
<th>Days to transfer property between two local companies</th>
<th>Cost to transfer property, as % of property value</th>
</tr>
</thead>
<tbody>
<tr>
<td>25% Time</td>
<td>25% Cost</td>
</tr>
<tr>
<td>25% Procedures</td>
<td>25% Quality of land administration index</td>
</tr>
<tr>
<td>Steps to transfer property so that it can be sold or used as collateral</td>
<td>Reliability, transparency and coverage of land administration system; protection against land disputes; equal access to property rights</td>
</tr>
</tbody>
</table>

REGISTERING PROPERTY

Doing Business records the full sequence of procedures necessary for a business (the buyer) to purchase a property from another business (the seller) and to transfer the property title to the buyer’s name so that the buyer can use the property for expanding its business, use the property as collateral in taking new loans or, if necessary, sell the property to another business. It also measures the time and cost to complete each of these procedures. Doing Business also measures the quality of the land administration system in each economy. The quality of land administration index has five dimensions: reliability of infrastructure, transparency of information, geographic coverage, land dispute resolution and equal access to property rights.
can use the property, use it as collateral for a bank loan or resell it (figure 12.8). Every procedure required by law or necessary in practice is included, whether it is the responsibility of the seller or the buyer or must be completed by a third party on their behalf. Local property lawyers, notaries and property registries provide information on procedures as well as the time and cost to complete each of them.

To make the data comparable across economies, several assumptions about the parties to the transaction, the property and the procedures are used.

Assumptions about the parties
The parties (buyer and seller):
- Are limited liability companies (or the legal equivalent).
- Are located in the periurban area of the economy’s largest business city. For 11 economies the data are also collected for the second largest business city (table 12A.1).
- Are 100% domestically and privately owned.
- Have 50 employees each, all of whom are nationals.
- Perform general commercial activities.

Assumptions about the property
The property:
- Has a value of 50 times income per capita. The sale price equals the value.
- Is fully owned by the seller.
- Has no mortgages attached and has been under the same ownership for the past 10 years.
- Is registered in the land registry or cadastre, or both, and is free of title disputes.
- Is located in a periurban commercial zone, and no rezoning is required.
- Consists of land and a building. The land area is 557.4 square meters (6,000 square feet). A two-story warehouse of 929 square meters (10,000 square feet) is located on the land. The warehouse is 10 years old, is in good condition and complies with all safety standards, building codes and other legal requirements. It has no heating system. The property of land and building will be transferred in its entirety.
- Will not be subject to renovations or additional building following the purchase.
- Has no trees, natural water sources, natural reserves or historical monuments of any kind.
- Will not be used for special purposes, and no special permits, such as for residential use, industrial plants, waste storage or certain types of agricultural activities, are required.
- Has no occupants, and no other party holds a legal interest in it.

Procedures
A procedure is defined as any interaction of the buyer or the seller, their agents (if an agent is legally or in practice required) with external parties, including government agencies, inspectors, notaries and lawyers. Interactions between company officers and employees are not considered. All procedures that are legally or in practice required for registering property are recorded, even if they may be avoided in exceptional cases (table 12.8). It is assumed that the buyer follows the fastest legal option available and used by the majority of property owners. Although the buyer may use lawyers or other professionals where necessary in the registration process, it is assumed that the buyer does not employ an outside facilitator in the registration process unless legally or in practice required to do so.

FIGURE 12.8 What are the time, cost and number of procedures required to transfer property between two local companies?

![Diagram of procedures]

Time
Time is recorded in calendar days. The measure captures the median duration that property lawyers, notaries or registry officials indicate is necessary to complete a procedure. It is assumed that the minimum time required for each procedure is one day, except for procedures that can be fully completed online, for which the time required is recorded as half a day. Although procedures may

TABLE 12.8 What do the indicators on the efficiency of transferring property measure?

<table>
<thead>
<tr>
<th>Procedures to legally transfer title on immovable property (number)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preregistration procedures (for example, checking for liens, notarizing sales agreement, paying property transfer taxes)</td>
</tr>
<tr>
<td>Registration procedures in the economy’s largest business city*</td>
</tr>
<tr>
<td>Postregistration procedures (for example, filing title with municipality)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Time required to complete each procedure (calendar days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does not include time spent gathering information</td>
</tr>
<tr>
<td>Each procedure starts on a separate day—though procedures that can be fully completed online are an exception to this rule</td>
</tr>
<tr>
<td>Procedure considered completed once final document is received</td>
</tr>
<tr>
<td>No prior contact with officials</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cost required to complete each procedure (% of property value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Official costs only, no bribes</td>
</tr>
<tr>
<td>No value added or capital gains taxes included</td>
</tr>
</tbody>
</table>

a. For 11 economies the data are also collected for the second largest business city.


The reliability of infrastructure index has six components:

- How land titles are kept at the registry of the largest business city of the economy. A score of 2 is assigned if the majority of land titles are fully digital; 1 if the majority are scanned; 0 if the majority are kept in paper format.
- Whether there is an electronic database for checking for encumbrances. A score of 1 is assigned if yes; 0 if no.
- How maps of land plots are kept at the mapping agency of the largest business city of the economy. A score of 2 is assigned if the majority of maps are fully digital; 1 if the majority are scanned; 0 if the majority are kept in paper format.
- Whether there is a geographic information system—an electronic database for recording boundaries, checking plans and providing cadastral information. A score of 1 is assigned if yes; 0 if no.
- How the land ownership registry and mapping agency are linked. A score of 1 is assigned if information about land ownership and maps are kept in a single database or in linked databases; 0 if there is no connection between the different databases.
- How immovable property is identified. A score of 1 is assigned if there is a unique number to identify properties for the majority of land plots; 0 if there are multiple identifiers.

The index ranges from 0 to 8, with higher values indicating a higher quality of infrastructure for ensuring the reliability of information on property titles and boundaries. In Turkey, for example, the land registry offices in Istanbul maintain titles in a fully digital format (a score of 2) and have a fully electronic database to check for encumbrances (a score of 1). The Cadastral Directorate offices in Istanbul have digital maps (a score of 2), and the Geographical Information Directorate has a public portal allowing users to check the

<table>
<thead>
<tr>
<th>Table 12.9 What do the indicators on the quality of land administration measure?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reliability of infrastructure index (0–8)</strong></td>
</tr>
<tr>
<td>Type of system for archiving information on land ownership</td>
</tr>
<tr>
<td>Availability of electronic database to check for encumbrances</td>
</tr>
<tr>
<td>Type of system for archiving maps</td>
</tr>
<tr>
<td>Availability of geographic information system</td>
</tr>
<tr>
<td>Link between property ownership registry and mapping system</td>
</tr>
<tr>
<td><strong>Transparency of information index (0–6)</strong></td>
</tr>
<tr>
<td>Accessibility of information on land ownership</td>
</tr>
<tr>
<td>Accessibility of maps of land plots</td>
</tr>
<tr>
<td>Publication of fee schedules, lists of registration documents, service standards</td>
</tr>
<tr>
<td>Availability of a specific and separate mechanism for complaints</td>
</tr>
<tr>
<td>Publication of statistics about the number of property transactions</td>
</tr>
<tr>
<td><strong>Geographic coverage index (0–8)</strong></td>
</tr>
<tr>
<td>Coverage of land registry at the level of the largest business city and the economy</td>
</tr>
<tr>
<td>Coverage of mapping agency at the level of the largest business city and the economy</td>
</tr>
<tr>
<td><strong>Land dispute resolution index (0–8)</strong></td>
</tr>
<tr>
<td>Legal framework for immovable property registration</td>
</tr>
<tr>
<td>Mechanisms to prevent and resolve land disputes</td>
</tr>
<tr>
<td><strong>Equal access to property rights (-2–0)</strong></td>
</tr>
<tr>
<td>Unequal ownership rights to property between unmarried men and women</td>
</tr>
<tr>
<td>Unequal ownership rights to property between married men and women</td>
</tr>
<tr>
<td><strong>Quality of land administration index (0–30)</strong></td>
</tr>
<tr>
<td>Sum of the reliability of infrastructure, transparency of information, geographic coverage, land dispute resolution indices and equal access to property rights</td>
</tr>
</tbody>
</table>

a. For 11 economies the data are also collected for the second largest business city.
plans and cadastral information on parcels along with satellite images (a score of 1). Databases about land ownership and maps are linked to each other through the TAKBIS system, an integrated information system for the land registry offices and cadastral offices (a score of 1). Finally, there is a unique identifying number for properties (a score of 1). Adding these numbers gives Turkey a score of 8 on the reliability of infrastructure index.

Transparency of information index
The transparency of information index has 10 components:

- Whether information on land ownership is accessible by anyone; 0 if access is restricted.
- Whether the fee schedule for accessing maps is made publicly available. A score of 0.5 is assigned if the fee schedule is accessible online or on a public board or free of charge; 0 if it is not made available to the public or if it can be obtained only in person.
- Whether the list of documents required for completing any type of property transaction is made publicly available. A score of 0.5 is assigned if all privately held land plots in the city are formally registered at the land registry; 0 if not.
- Whether the agency in charge of immovable property registration commits to delivering an updated map within a specific time frame. A score of 0.5 is assigned if there is a specific and separate mechanism for filing a complaint or report an error by filling in a specific form online (a score of 1). In addition, the Kadaster makes statistics about land transactions available to the public, reporting a total of 178,293 property transfers in Amsterdam in 2015 (a score of 0.5). Moreover, anyone who pays a fee can consult online cadastral maps (a score of 0.5). It is also possible to get public access to the fee schedule for map consultation (a score of 0.5), the service standards for delivery of an updated plan (a score of 0.5) and a specific mechanism for filing a complaint about a map (a score of 0.5). Adding these numbers gives the Netherlands a score of 6 on the transparency of information index.

Geographic coverage index
The geographic coverage index has four components:

- How complete the coverage of the land registry is at the level of the largest business city. A score of 2 is assigned if all privately held land plots in the city are formally registered at the land registry; 0 if not.
- How complete the coverage of the land registry is at the level of the economy. A score of 2 is assigned if all privately held land plots in the economy are formally registered at the land registry; 0 if not.
- How complete the coverage of the mapping agency is at the level of the largest business city. A score of 2 is assigned if all privately held land plots in the city are mapped; 0 if not.
- How complete the coverage of the mapping agency is at the level of the economy. A score of 2 is assigned if all privately held land plots in the economy are mapped; 0 if not.

The index ranges from 0 to 6, with higher values indicating greater transparency in the land administration system. In the Netherlands, for example, anyone who pays a fee can consult the land ownership database (a score of 1). Information can be obtained at the office, by mail or online using the Kadaster website (http://www.kadaster.nl). Anyone can also get information online about the list of documents to submit for property registration (a score of 0.5), the fee schedule for registration (a score of 0.5) and the service standards (a score of 0.5). And anyone facing a problem at the land registry can file a complaint or report an error by filling in a specific form online (a score of 1). In addition, the Kadaster makes statistics about land transactions available to the public, reporting a total of 178,293 property transfers in Amsterdam in 2015 (a score of 0.5). Moreover, anyone who pays a fee can consult online cadastral maps (a score of 0.5). It is also possible to get public access to the fee schedule for map consultation (a score of 0.5), the service standards for delivery of an updated plan (a score of 0.5) and a specific mechanism for filing a complaint about a map (a score of 0.5). Adding these numbers gives the Netherlands a score of 6 on the transparency of information index.

The index ranges from 0 to 8, with higher values indicating greater geographic coverage in land ownership registration and cadastral mapping. In the Republic of Korea, for example, all privately held land plots are formally registered at the land registry in Seoul (a score of 2) and
whether the law requires that all property sale transactions be registered at the immovable property registry to make them opposable to third parties. A score of 1.5 is assigned if yes; 0 if no.
- Whether the formal system of immovable property registration is subject to a guarantee. A score of 0.5 is assigned if either a state or private guarantee over immovable property registration is required by law; 0 if no such guarantee is required.
- Whether there is a specific compensation mechanism to cover for losses incurred by parties who engaged in good faith in a property transaction based on erroneous information certified by the immovable property registry. A score of 0.5 is assigned if yes; 0 if no.
- Whether the legal system requires verification of the legal validity of the documents necessary for a property transaction. A score of 0.5 is assigned if there is a review of legal validity, either by the registrar or by a professional (such as a notary or lawyer); 0 if there is no review.
- Whether the legal system requires verification of the identity of the parties to a property transaction. A score of 0.5 is assigned if there is verification of identity, either by the registrar or by a professional (such as a notary or lawyer); 0 if there is no verification.
- Whether there is a national database to verify the accuracy of identity documents. A score of 1 is assigned if such a national database is available; 0 if not.

**Land dispute resolution index**

The land dispute resolution index assesses the legal framework for immovable property registration and the accessibility of dispute resolution mechanisms. The index has eight components:

- Whether the law requires that all land disputes between two local businesses over tenure rights worth 50 times income per capita and located in the largest business city. A score of 3 is assigned if it takes less than one year; 2 if it takes between one and two years; 1 if it takes between two and three years; 0 if it takes more than three years.
- Whether there are publicly available statistics on the number of land disputes in the first instance. A score of 0.5 is assigned if statistics are published about land disputes in the economy in the past calendar year; 0 if no such statistics are made publicly available.

The index ranges from 0 to 8, with higher values indicating greater protection against land disputes. In Lithuania, for example, according to the Civil Code and the Law on the Real Property Register, property transactions must be registered at the land registry to make them opposable to third parties (a score of 1.5). The property transfer system is guaranteed by the state (a score of 0.5) and has a compensation mechanism to cover for losses incurred by parties who engaged in good faith in a property transaction based on an error by the registry (a score of 0.5). A notary verifies the legal validity of the documents in a property transaction (a score of 0.5) and the identity of the parties (a score of 0.5), in accordance with the Law on the Notary Office (Law I-2882). Lithuania has a national database to verify the accuracy of identity documents (a score of 1). In a land dispute between two Lithuanian companies over the tenure rights of a property worth 750,000, the Vilnius District Court gives a decision in less than one year (a score of 3). Finally, statistics about land disputes are collected and published; there were a total of 7 land disputes in the country in 2015 (a score of 0.5). Adding these numbers gives Lithuania a score of 8 on the land dispute resolution index.

**Equal access to property rights index**

The equal access to property rights index has two components:

- Whether unmarried men and unmarried women have equal ownership rights to property. A score of -1 is assigned if there are unequal ownership rights to property; 0 if there is equality.
- Whether married men and married women have equal ownership rights to property. A score of -1 is assigned if there are unequal ownership rights to property; 0 if there is equality.

Ownership rights cover the ability to manage, control, administer, access, encumber, receive, dispose of and transfer property. Each restriction is considered if there is a differential treatment for men and women in the law considering the default marital property regime. For customary land systems, equality is assumed unless there is a general legal provision stating a differential treatment.

The index ranges from -2 to 0, with higher values indicating greater inclusiveness of property rights. In Mali, for example, unmarried men and unmarried women have equal ownership rights to property (a score of 0). The same applies to married men and women who can use their property in the same way (a score of 0). Adding these numbers gives Mali a score of 0 on the equal access to property rights index—which indicates equal property rights between men and women. On the contrary in Swaziland, unmarried men and unmarried women do not have equal ownership rights to property according to the Deeds Registry Act of 1968, Article 16 (a score of -1). The same applies to married men and women who are not permitted to use their property in the same way according to the Deeds Registry Act of 1968, Articles 16 and 45 (a score of -1). Adding these numbers gives Swaziland a score of -2 on the equal access to property rights index—which indicates unequal property rights between men and women.
Quality of land administration index

The quality of land administration index is the sum of the scores on the reliability of infrastructure, transparency of information, geographic coverage, land dispute resolution and equal access to property indices. The index ranges from 0 to 30 with higher values indicating better quality of the land administration system.

If private sector entities were unable to register property transfers in an economy between June 2015 and June 2016, the economy receives a “no practice” mark on the procedures, time and cost indicators. A “no practice” economy receives a score of 0 on the quality of land administration index even if its legal framework includes provisions related to land administration.

REFORMS

The registering property indicator set tracks changes related to the efficiency and quality of land administration systems every year. Depending on the impact on the data, certain changes are classified as reforms and listed in the summaries of Doing Business reforms in 2015/2016 section of the report in order to acknowledge the implementation of significant changes. Reforms are divided into two types: those that make it easier to do business and those changes that make it more difficult to do business. The registering property indicator set uses two criteria to recognize a reform.

First, the aggregate gap on the overall distance to frontier of the indicator set is used to assess the impact of data changes. Any data update that leads to a change of 2 or more percentage points on the relative distance to frontier gap is classified as a reform (for more details on the relative gap, see the chapter on the distance to frontier and ease of doing business ranking). For example if the implementation of a new electronic property registration system reduces time in a way that the overall relative gap decreases by 2 percentage points or more, such change is classified as a reform. On the contrary, minor fee updates or other smaller changes in the indicators that have an aggregate impact of less than 2 percentage points on the relative gap are not classified as a reform, but their impact is still reflected on the most updated indicators for this indicator set.

Second, the overall score on the quality of land administration is also considered as a criterion. Any change of 1 point or more on the overall quality score is acknowledged as a reform. For instance, the completion of the geographic coverage of the land registry of the business city (2 points) is considered as a reform. However, the publication of statistics about property transfers (0.5 point) is not significant enough to be classified as a reform.

The data details on registering property can be found for each economy at http://www.doingbusiness.org.

GETTING CREDIT

Doing Business measures the legal rights of borrowers and lenders with respect to secured transactions through one set of indicators and the reporting of credit information through another. The first set of indicators measures whether certain features that facilitate lending exist within the applicable collateral and bankruptcy laws. The second set measures the coverage, scope and accessibility of credit information available through credit reporting service providers such as credit bureaus or credit registries (figure 12.9). The ranking of economies on the ease of getting credit is determined by sorting their distance to frontier scores for getting credit. These scores are the distance to frontier score for the sum of the strength of legal rights index and the depth of credit information index (figure 12.10).

LEGAL RIGHTS OF BORROWERS AND LENDERS

The data on the legal rights of borrowers and lenders are gathered through a questionnaire administered to financial lawyers and verified through analysis of laws and regulations as well as public sources of information on collateral and bankruptcy laws. Questionnaire responses are verified through several rounds of follow-up communication with respondents as well as by contacting third parties and consulting public sources. The questionnaire data are confirmed through teleconference calls or on-site visits in all economies.

Strength of legal rights index

The strength of legal rights index measures the degree to which collateral and bankruptcy laws protect the rights of borrowers and lenders and thus facilitate lending (table 12.10). For each economy it is first determined whether a unitary secured transactions system exists. Then two case scenarios, case A and case B, are used to determine how a

FIGURE 12.9 Do lenders have credit information on entrepreneurs seeking credit? Is the law favorable to borrowers and lenders using movable assets as collateral?
nonpossessory security interest is created, publicized and enforced according to the law. Special emphasis is given to how the collateral registry operates (if registration of security interests is possible). The case scenarios involve a secured borrower, company ABC, and a secured lender, BizBank.

In some economies the legal framework for secured transactions will allow only case A or case B (not both) to apply. Both cases examine the same set of legal provisions relating to the use of movable collateral.

The case scenarios also involve assumptions. In case A, as collateral for the loan, ABC grants BizBank a nonpossessory security interest in one category of movable assets, for example, its machinery or its inventory. ABC wants to keep both possession and ownership of the collateral. In economies where the law does not allow nonpossessory security interests in movable property, ABC and BizBank use a fiduciary transfer-of-title arrangement (or a similar substitute for nonpossessory security interests).

In case B, ABC grants BizBank a business charge, enterprise charge, floating charge or any charge that gives BizBank a security interest over ABC’s combined movable assets (or as much of ABC’s movable assets as possible). ABC keeps ownership and possession of the assets.

The strength of legal rights index covers functional equivalents to security interests in movable assets (such as financial leases and sales with retention of title) only in its first component, to assess how integrated or unified the economy’s legal framework for secured transactions is.

The strength of legal rights index includes 10 aspects related to legal rights in collateral law and 2 aspects in bankruptcy law. A score of 1 is assigned for each of the following features of the laws:

- The economy has an integrated or unified legal framework for secured transactions that extends to the creation, publicity and enforcement of four functional equivalents to security interests in movable assets: fiduciary transfers of title; financial leases; assignments or transfers of receivables; and sales with retention of title.
- The law allows a business to grant a nonpossessory security right in a single category of movable assets (such as machinery or inventory), without requiring a specific description of the collateral.
- The law allows a business to grant a nonpossessory security right in substantially all its movable assets, without requiring a specific description of the collateral.
- A security right can be given over future or after-acquired assets and extends automatically to the products, proceeds or replacements of the original assets.
- A general description of debts and obligations is permitted in the collateral agreement and in registration documents, all types of debts and obligations can be secured between the parties, and the collateral agreement can include a maximum amount for which the assets are encumbered.
- A collateral registry or registration institution for security interests granted over movable property by incorporated and nonincorporated entities is in operation, unified geographically and with an electronic database indexed by debtors’ names.
- The collateral registry is a notice-based registry—a registry that files only a notice of the existence of a security interest (not the underlying documents) and does not perform a legal review of the transaction. The registry also publicizes functional equivalents to security interests.
- The collateral registry has modern features such as those that allow secured creditors (or their representatives) to register, search, amend or cancel security interests online.
- Secured creditors are paid first (for example, before tax claims

<table>
<thead>
<tr>
<th>TABLE 12.10  What do the getting credit indicators measure?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strength of legal rights index (0–12)</strong></td>
</tr>
<tr>
<td>Protection of rights of borrowers and lenders through collateral laws</td>
</tr>
<tr>
<td>Protection of secured creditors’ rights through bankruptcy laws</td>
</tr>
<tr>
<td><strong>Depth of credit information index (0–8)</strong></td>
</tr>
<tr>
<td>Scope and accessibility of credit information distributed by credit bureaus and credit registries</td>
</tr>
<tr>
<td>Credit bureau coverage (% of adults)</td>
</tr>
<tr>
<td>Number of individuals and firms listed in the largest credit bureau as percentage of adult population</td>
</tr>
<tr>
<td>Credit registry coverage (% of adults)</td>
</tr>
<tr>
<td>Number of individuals and firms listed in a credit registry as percentage of adult population</td>
</tr>
</tbody>
</table>
and employee claims) when a debtor defaults outside an insolvency procedure.

- Secured creditors are paid first (for example, before tax claims and employee claims) when a business is liquidated.
- Secured creditors are subject to an automatic stay on enforcement procedures when a debtor enters a court-supervised reorganization procedure, but the law protects secured creditors’ rights by providing clear grounds for relief from the automatic stay (for example, if the movable property is in danger) or setting a time limit for it.
- The law allows parties to agree in the collateral agreement that the lender may enforce its security right out of court; the law allows public and private auctions and also permits the secured creditor to take the asset in satisfaction of the debt.

The index ranges from 0 to 12, with higher scores indicating that collateral and bankruptcy laws are better designed to expand access to credit.

**REFORMS**

The strength of legal rights index tracks changes related to secured transactions and insolvency every year. Depending on the impact on the data, certain changes are classified as reforms and listed in the summaries of Doing Business reforms in 2015/2016 section of the report in order to acknowledge the implementation of significant changes. Reforms are divided in two types: those that make it easier to do business and those changes that make it more difficult to do business. The strength of legal rights index uses the following criteria to recognize a reform.

All changes in laws and regulations that have any impact on the economy’s score on the existence of a secured transaction legal framework which regulates the creation, publicity and enforcement of nonpossessory security interests and their functional equivalents. Each year, new laws and amendments are evaluated to see if they facilitate obtaining credit by small and medium enterprises, allowing for maximum flexibility in the choice of assets which can be used as collateral. Guidelines, model rules, principles, recommendations and case law are excluded.

Reforms impacting the strength of legal rights index include amendments to or the introduction of a secured transactions act, insolvency code, or civil code as well as the establishment or modernization of any of the features of a collateral registry as measured by the indicators. For example, introducing a law which provides for a collateral registry and actually establishing that collateral registry—which is geographically centralized, unified for all types of movable assets and for both incorporated and non-incorporated entities searchable by debtor’s name—would represent a reform with a 1-point increase and would therefore be acknowledged in the report.

**CREDIT INFORMATION**

The data on the reporting of credit information are built in two stages. First, banking supervision authorities and public information sources are surveyed to confirm the presence of a credit reporting service provider, such as a credit bureau or credit registry. Second, when applicable, a detailed questionnaire on the credit bureau’s or credit registry’s structure, laws and associated rules is administered to the entity itself. Questionnaire responses are verified through several rounds of follow-up communication with respondents as well as by contacting third parties and consulting public sources. The questionnaire data are confirmed through teleconference calls or on-site visits in all economies.

A score of 1 is assigned for each of the following eight features of the credit bureau or credit registry (or both):

- Data on firms and individuals are distributed.
- Both positive credit information (for example, original loan amounts, outstanding loan amounts and a pattern of on-time repayments) and negative information (for example, late payments and the number and amount of defaults) are distributed.
- Data from retailers or utility companies are distributed in addition to data from financial institutions.
- At least two years of historical data are distributed. Credit bureaus and registries that erase data on defaults as soon as they are repaid or distribute negative information more than 10 years after defaults are repaid receive a score of 0 for this component.
- Data on loan amounts below 1% of income per capita are distributed.
- By law, borrowers have the right to access their data in the largest credit bureau or registry in the economy. Credit bureaus and registries that charge more than 1% of income per capita for borrowers to inspect their data receive a score of 0 for this component.
- Banks and other financial institutions have online access to the credit information (for example, through a web interface, a system-to-system connection or both).
- Bureau or registry credit scores are offered as a value added service to help banks and other financial institutions assess the creditworthiness of borrowers.

The index ranges from 0 to 8, with higher values indicating the availability of more credit information, from either a credit bureau or a credit registry, to facilitate lending decisions. If the credit bureau or registry is not operational or covers less than 5% of the adult population, the score on the depth of credit information index is 0.

In Lithuania, for example, both a credit bureau and a credit registry operate. Both
Credit registry coverage
Credit registry coverage reports the number of individuals and firms listed in a credit registry's database as of January 1, 2016, with information on their borrowing history within the past five years, plus the number of individuals and firms that have had no borrowing history in the past five years but for which a lender requested a credit report from the registry in the period between January 2, 2015, and January 1, 2016. The number is expressed as a percentage of the adult population (the population age 15 and above in 2015 according to the World Bank’s World Development Indicators). A credit registry is defined as a database managed by the public sector, usually by the central bank or the superintendent of banks, that collects information on the creditworthiness of borrowers (individuals or firms) in the financial system and facilitates the exchange of credit information among banks and other regulated financial institutions (while their primary objective is to assist banking supervision). If no credit registry operates, the coverage value is 0.0%.

REFORMS
The depth of credit information index tracks changes related to the coverage, scope and accessibility of credit information available through either a credit bureau or a credit registry every year. Depending on the impact on the data, certain changes are classified as reforms and listed in the summaries of Doing Business reforms in 2015/2016 section of the report in order to acknowledge the implementation of significant changes. Reforms are divided into two types: those that make it easier to do business and those changes that make it more difficult to do business. The credit information index uses three criteria to recognize a reform.

First, all changes in laws, regulations and practices that have any impact on the economy's score on the credit information index are classified as reforms. Examples of reforms impacting the index include measures to distribute positive credit data in addition to negative data, the distribution of credit data from utilities or retailers or the introduction of credit scores as a value-added service. Any change that improves the score of a given economy in any of the eight features of the index is considered a reform. Some reforms can have an impact in more than one feature. For example the introduction of a new credit bureau covering more than 5% of the adult population that distributes information on firms and individuals, as well as positive and negative data and provides online access to data users, represents a 3 point increase in the index. In contrast, the introduction of legislation that guarantees borrowers’ rights to access their data in the largest credit bureau or registry in the economy represents a reform with a 1 point increase in the index.

Second, changes that increase the coverage of the largest credit bureau or registry in an economy above 5% of the adult population may also be classified as reforms. According to the getting credit methodology, if the credit bureau or registry is not operational or covers less than 5% of the adult population, the score on the depth of credit information index is 0. The impact of the reform will depend on the characteristics of the economy’s credit reporting system as it relates to the eight features of the index. Expanded coverage that does not reach 5% of the adult population is not classified as a reform but the impact is still reflected on the most updated statistics.

Third, occasionally the credit information index will acknowledge legislative changes with no current impact on the data as reforms. This option is typically reserved to legislative changes of exceptional magnitude, such as the introduction of laws allowing the operation of credit bureaus or laws on personal data protection.

The data details on getting credit can be found for each economy at http://www.doingbusiness.org. The initial methodology was developed by Djankov, McLiesh and Shleifer (2007) and is adopted here with minor changes.
PROTECTING MINORITY INVESTORS

Doing Business measures the protection of minority investors from conflicts of interest through one set of indicators and shareholders’ rights in corporate governance through another (table 12.11). The data come from a questionnaire administered to corporate and securities lawyers and are based on securities regulations, company laws, civil procedure codes and court rules of evidence. The ranking of economies on the strength of minority investor protections is determined by sorting their distance to frontier scores for protecting minority investors. These scores are the simple average of the distance to frontier scores for the extent of conflict of interest regulation index and the extent of shareholder governance index (figure 12.11).

PROTECTION OF SHAREHOLDERS FROM CONFLICTS OF INTEREST

The extent of conflict of interest regulation index measures the protection of shareholders against directors’ misuse of corporate assets for personal gain by distinguishing three dimensions of regulation that address conflicts of interest: transparency of related-party transactions (extent of disclosure index), shareholders’ ability to sue and hold directors liable for self-dealing (extent of director liability index) and access to evidence and allocation of legal expenses in shareholder litigation (ease of shareholder suits index). To make the data comparable across economies, several assumptions about the business and the transaction are used (figure 12.12).

Assumptions about the business
The business (Buyer):
- Is a publicly traded corporation listed on the economy’s most important stock exchange. If the number of publicly traded companies listed on that exchange is less than 10, or if there is no stock exchange in the economy, it is assumed that Buyer is a large private company with multiple shareholders.
- Has a board of directors and a chief executive officer (CEO) who may legally act on behalf of Buyer where permitted, even if this is not specifically required by law.
- Has a supervisory board (applicable to economies with a two-tier board system) on which 60% of the shareholder-elected members have been appointed by Mr. James, who is Buyer’s minority shareholders.

TABLE 12.11 What do the protecting minority investors indicators measure?

<table>
<thead>
<tr>
<th>Extent of disclosure index (0–10)</th>
<th>Extent of shareholder rights index (0–10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review and approval requirements for related-party transactions</td>
<td>Shareholders’ rights and role in major corporate decisions</td>
</tr>
<tr>
<td>Internal, immediate and periodic disclosure requirements for related-party transactions</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Extent of director liability index (0–10)</th>
<th>Extent of ownership and control index (0–10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minority shareholders’ ability to sue and hold interested directors liable for prejudicial related-party transactions</td>
<td>Governance safeguards protecting shareholders from undue board control and entrenchment</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ease of shareholder suits index (0–10)</th>
<th>Extent of corporate transparency index (0–10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to internal corporate documents</td>
<td>Corporate transparency on significant owners, executive compensation, annual meetings and audits</td>
</tr>
<tr>
<td>Evidence obtainable during trial</td>
<td></td>
</tr>
<tr>
<td>Allocation of legal expenses</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Extent of conflict of interest regulation index (0–10)</th>
<th>Extent of shareholder governance index (0–10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simple average of the extent of disclosure, extent of director liability and ease of shareholder suits indices</td>
<td>Simple average of the extent of shareholder rights, extent of ownership and control and extent of corporate transparency indices</td>
</tr>
</tbody>
</table>

Strength of minority investor protection index (0–10)
Simple average of the extent of conflict of interest regulation and extent of shareholder governance indices.
controlling shareholder and a member of Buyer’s board of directors.

- Has not adopted any bylaws or articles of association that differ from default minimum standards and does not follow any nonmandatory codes, principles, recommendations or guidelines relating to corporate governance.
- Is a manufacturing company with its own distribution network.

Assumptions about the transaction

- Mr. James owns 60% of Buyer and elected two directors to Buyer’s five-member board.
- Mr. James also owns 90% of Seller, a company that operates a chain of retail hardware stores. Seller recently closed a large number of its stores.
- Mr. James proposes that Buyer purchase Seller’s unused fleet of trucks to expand Buyer’s distribution of its food products, a proposal to which Buyer agrees. The price is equal to 10% of Buyer’s assets and is higher than the market value.
- The proposed transaction is part of the company’s ordinary course of business and is not outside the authority of the company.
- Buyer enters into the transaction. All required approvals are obtained, and all required disclosures made (that is, the transaction is not fraudulent).
- The transaction causes damages to Buyer. Shareholders sue Mr. James and the other parties that approved the transaction.

Extent of disclosure index

The extent of disclosure index has five components:

- Which corporate body can provide legally sufficient approval for the transaction. A score of 0 is assigned if it is the CEO or the managing director alone; 1 if the board of directors, the supervisory board or shareholders must vote and Mr. James is permitted to vote; 2 if the board of directors or the supervisory board must vote and Mr. James is not permitted to vote;
- Whether it is required that an external body, for example, an external auditor, review the transaction before it takes place. A score of 0 is assigned if no; 1 if yes.
- Whether disclosure by Mr. James to the board of directors or the supervisory board is required. A score of 0 is assigned if no disclosure is required; 1 if a general disclosure of the existence of a conflict of interest is required without any specifics; 2 if full disclosure of all material facts relating to Mr. James’s interest in the Buyer-Seller transaction is required.
- Whether immediate disclosure of the transaction to the public, the regulator or the shareholders is required. A score of 0 is assigned if no disclosure is required; 1 if disclosure on the terms of the transaction is required but not on Mr. James’s conflict of interest; 2 if disclosure on both the terms and Mr. James’s conflict of interest is required.
- Whether disclosure in the annual report is required. A score of 0 is assigned if no disclosure on the transaction is required; 1 if disclosure on the terms of the transaction is required but not on Mr. James’s conflict of interest; 2 if disclosure on both the terms and Mr. James’s conflict of interest is required.

The index ranges from 0 to 10, with higher values indicating greater disclosure. In Poland, for example, the board of directors must approve the transaction and Mr. James is not allowed to vote (a score of 2). Poland does not require an external body to review the transaction (a score of 0). Before the transaction Mr. James must disclose his conflict of interest to the other directors, but he is not required to provide specific information about it (a score of 1). Buyer is required to disclose immediately all information affecting the stock price, including the conflict of interest (a score of 2). In its annual report Buyer must also disclose the terms of the transaction and Mr. James’s ownership in Buyer and Seller (a score of 2). Adding these numbers gives Poland a score of 7 on the extent of disclosure index.

Extent of director liability index

The extent of director liability index has seven components:

- Whether shareholder plaintiffs are able to sue directly or derivatively for the damage the transaction causes to the company. A score of 0 is assigned if suits are unavailable or are available only for shareholders holding more than 10% of the company’s share capital; 1 if direct or derivative suits are available for shareholders holding 10% of share capital.
- Whether a shareholder plaintiff is able to hold Mr. James liable for the damage the Buyer-Seller transaction causes to the company. A score of 0 is assigned if Mr. James cannot be held liable or can be held liable only for fraud, bad faith or gross negligence; 1 if Mr. James can be held liable only if he influenced the approval of the transaction or was negligent; 2 if Mr. James can be held liable when the transaction is unfair or prejudicial to the other shareholders.
- Whether a shareholder plaintiff is able to hold the approving body (the CEO, members of the board of directors or members of the supervisory board) liable for the damage the transaction causes to the company. A score of 0 is assigned if the approving body cannot be held liable or can be held liable only for fraud, bad faith or gross negligence; 1 if the approving body can be held liable for negligence; 2 if the approving body can be held liable when the transaction is unfair or prejudicial to the other shareholders.
- Whether Mr. James pays damages for the harm caused to the company upon a successful claim by the shareholder plaintiff. A score of 0 is assigned if no; 1 if yes.
- Whether Mr. James repays profits made from the transaction upon a successful claim by the shareholder plaintiff. A score of 0 is assigned if no; 1 if yes.
■ Whether Mr. James is fined and imprisoned or disqualified upon a successful claim by the shareholder plaintiff. A score of 0 is assigned if no; 1 if he is fined and imprisoned or if he is disqualified—that is, disallowed from representing or holding a managerial position in any company for a year or more.

■ Whether a court can void the transaction upon a successful claim by a shareholder plaintiff. A score of 0 is assigned if rescission is unavailable or is available only in case of fraud, bad faith or gross negligence; 1 if rescission is available when the transaction is oppressive or prejudicial to the other shareholders; 2 if rescission is available when the transaction is unfair or entails a conflict of interest.

The index ranges from 0 to 10, with higher values indicating greater liability of directors. In Panama, for example, direct or derivative suits are available for shareholders holding 10% of share capital (a score of 1). Assuming that the prejudicial transaction was duly approved and disclosed, in order to hold Mr. James liable a plaintiff must prove that Mr. James influenced the approving body or acted negligently (a score of 1). To hold the other directors liable, a plaintiff must prove that they acted negligently (a score of 1). If Mr. James is found liable, he must pay damages (a score of 1) but he is not required to disgorge his profits (a score of 0). Mr. James can be neither fined and imprisoned nor disqualified (a score of 0). The prejudicial transaction cannot be voided (a score of 0). Adding these numbers gives Panama a score of 4 on the extent of director liability index.

Ease of shareholder suits index

The ease of shareholder suits index has six components:

■ Whether shareholders owning 10% of the company’s share capital have the right to inspect the transaction documents before filing suit or request that a government inspector investigate the Buyer-Seller transaction without filing suit. A score of 0 is assigned if no; 1 if yes.

■ What range of documents is available to the shareholder plaintiff from the defendant and witnesses during trial. A score of 1 is assigned for each of the following types of documents available: information that the defendant has indicated he intends to rely on for his defense; information that directly proves specific facts in the plaintiff’s claim; and any information relevant to the subject matter of the claim.

■ Whether the plaintiff can obtain categories of relevant documents from the defendant without identifying each document specifically. A score of 0 is assigned if no; 1 if yes.

■ Whether the plaintiff can directly examine the defendant and witnesses during trial. A score of 0 is assigned if no; 1 if yes, with prior approval of the questions by the judge; 2 if yes, without prior approval.

■ Whether the standard of proof for civil suits is lower than that for a criminal case. A score of 0 is assigned if no; 1 if yes.

■ Whether shareholder plaintiffs can recover their legal expenses from the company. A score of 0 is assigned if no; 1 if plaintiffs can recover their legal expenses from the company only upon a successful outcome of their legal action or if payment of their attorney fees is contingent on a successful outcome; 2 if plaintiffs can recover their legal expenses from the company regardless of the outcome of their legal action.

The index ranges from 0 to 10, with higher values indicating greater powers of shareholders to challenge the transaction. In Croatia, for example, a shareholder holding 10% of Buyer’s shares can request that a government inspector review suspected mismanagement by Mr. James and the CEO without filing suit in court (a score of 1). The plaintiff can access documents that the defendant intends to rely on for his defense (a score of 1). The plaintiff must specifically identify the documents being sought (for example, the Buyer-Seller purchase agreement of July 15, 2015) and cannot simply request categories (for example, all documents related to the transaction) (a score of 0). The plaintiff can examine the defendant and witnesses during trial, without prior approval of the questions by the court (a score of 2). The standard of proof for civil suits is preponderance of the evidence, while the standard for a criminal case is beyond a reasonable doubt (a score of 1). The plaintiff can recover legal expenses from the company only upon a successful outcome of the legal action (a score of 1). Adding these numbers gives Croatia a score of 6 on the ease of shareholder suits index.

Extent of conflict of interest regulation index

The extent of conflict of interest regulation index is the average of the extent of disclosure index, the extent of director liability index and the ease of shareholder suits index. The index ranges from 0 to 10, with higher values indicating stronger regulation of conflicts of interest.

SHAREHOLDERS’ RIGHTS IN CORPORATE GOVERNANCE

The extent of shareholder governance index measures shareholders’ rights in corporate governance by distinguishing three dimensions of good governance: shareholders’ rights and role in major corporate decisions (extent of shareholder rights index), governance safeguards protecting shareholders from undue board control and entrenchment (extent of ownership and control index) and corporate transparency on ownership stakes, compensation, audits and financial prospects (extent of corporate transparency index). The index also measures whether a subset of relevant rights and safeguards are available in limited companies.
**Extent of shareholder rights index**

For each component of the extent of shareholder rights index, a score of 0 is assigned if the answer is no; 1 if yes. The index has 10 components:

- Whether shareholder can remove members of the board of directors without cause before the end of their term.
- Whether the board of directors must include a separate audit committee.
- Whether a potential acquirer must make a tender offer to all shareholders upon acquiring 50% of Buyer.
- Whether Buyer must pay dividends within a maximum period set by law after the declaration date.
- Whether a subsidiary is prohibited from acquiring shares issued by its parent company.
- Assuming that Buyer is a limited company, whether there is a management deadlock breaking mechanism.  
- Assuming that Buyer is a limited company, whether a potential acquirer must make a tender offer to all members upon acquiring 50% of Buyer.
- Assuming that Buyer is a limited company, whether Buyer must distribute profits within a maximum period set by law after the declaration date.
- Whether shareholders representing 5% can put items on the meeting agenda.
- Assuming that Buyer is a limited company, whether shareholders must meet at least once a year.
- Assuming that Buyer is a limited company, whether members representing 5% can put items on the meeting agenda.
- Assuming that Buyer is a limited company larger than a threshold set by law, whether its annual financial statements must be audited by an external auditor.

**Extent of shareholder governance index**

The extent of shareholder governance index is the average of the extent of shareholder rights index, the extent of ownership and control index and the extent of corporate transparency index. The index ranges from 0 to 10, with higher values indicating stronger rights of shareholders in corporate governance.

**REFORMS**

The protecting minority investors indicator set captures changes related to the regulation of related-party transactions as well as corporate governance every year. Depending on the impact on the data, certain changes are listed in the summaries of Doing Business reforms in 2015/2016 section of the report in order to acknowledge the implementation of significant changes. They are divided into two types: reforms that make it easier to do business and changes that make it more difficult to do business.

The protecting minority investors indicator set uses the following criteria to recognize a reform:

All legislative and regulatory changes that impact the score assigned to a given economy on any of the 48 questions comprising the six indicators on minority investor protection are classified as a reform. The change must be mandatory, meaning that failure to comply allows shareholders to sue in court or for sanctions to be leveled by a regulatory body such as the company registrar, the capital
market authority or the securities and exchange commission. Guidelines, model rules, principles, recommendations and duties to explain in case of non-compliance are excluded. When a change exclusively affects companies that are listed on the stock exchange, it will be captured only if the stock exchange has 10 or more equity listings. If the economy has no stock exchange or a stock exchange with less than 10 equity listings, the change is taken into account only if it affects companies irrespective of whether their shares are listed or not.

Reforms impacting the protecting minority investors indicator set include amendments to or the introduction of a new companies act, commercial code, securities regulation, code of civil procedure, court rules, law, decree, order, supreme court decision, or stock exchange listing rule. The changes must affect the rights and duties of issuers, company managers, directors and shareholders in connection with related-party transactions or, more generally, the aspects of corporate governance measured by the indicators. For example in a given economy, related-party transactions have to be approved by the board of directors including board members who have a personal financial interest in seeing the transaction succeed. This economy introduces a law requiring that related-party transactions be approved instead by a general meeting of shareholders and that excludes shareholders with conflicting interests from participating in the vote. This law would result in a 2-point increase on the corresponding question in the extent of disclosure index and would therefore be acknowledged in the report.

The data details on protecting minority investors can be found for each economy at http://www.doingbusiness.org. The initial methodology was developed by Djankov, La Porta and others (2008).

PAYING TAXES

Doing Business records the taxes and mandatory contributions that a medium-size company must pay in a given year as well as measures of the administrative burden of paying taxes and contributions and complying with postfiling procedures (figure 12.13). The project was developed and implemented in cooperation with PwC.11 Taxes and contributions measured include the profit or corporate income tax, social contributions and labor taxes paid by the employer, property taxes, property transfer taxes, dividend tax, capital gains tax, financial transactions tax, waste collection taxes, vehicle and road taxes, and any other small taxes or fees.

The ranking of economies on the ease of paying taxes is determined by sorting their distance to frontier scores for paying taxes. These scores are the simple average of the distance to frontier scores for each of the component indicators (figure 12.14), with a threshold and a nonlinear transformation applied to one of the component indicators, the total tax rate.12 The threshold is defined as the total tax rate at the 15th percentile of the overall distribution for all years included in the analysis up to and including Doing Business 2015, which is 26.1%. All economies with a total tax rate below this threshold receive the same score as the economy at the threshold.

The threshold is not based on any economic theory of an “optimal tax rate” that minimizes distortions or maximizes efficiency in an economy’s overall tax system. Instead, it is mainly empirical in nature, set at the lower end of the distribution of tax rates levied on medium-size enterprises in the manufacturing sector as observed through the paying taxes indicators. This reduces the bias in the total tax rate indicator toward economies that do not need to levy significant taxes on companies like the Doing Business standardized case study company because they raise public revenue in other ways—for example, through taxes on foreign companies, through taxes on sectors other than manufacturing or from natural resources (all of which are outside the scope of the methodology).
Doing Business measures all taxes and contributions that are government mandated (at any level—federal, state or local) and that apply to the standardized business and have an impact in its financial statements. In doing so, Doing Business goes beyond the traditional definition of a tax. As defined for the purposes of government national accounts, taxes include only compulsory, unrequited payments to general government. Doing Business departs from this definition because it measures imposed charges that affect business accounts, not government accounts. One main difference relates to labor contributions. The Doing Business measure includes government-mandated contributions paid by the employer to a required private pension fund or workers’ insurance fund. It includes, for example, Australia’s compulsory superannuation guarantee and workers’ compensation insurance. For the purpose of calculating the total tax rate (defined below), only taxes borne are included. For example, value added taxes (VAT) are generally excluded (provided that they are not irrecoverable) because they do not affect the accounting profits of the business—that is, they are not reflected in the income statement. They are, however, included for the purpose of the compliance measures (time and payments), as they add to the burden of complying with the tax system.

Assumptions about the business

The business:
- Is a limited liability, taxable company. If there is more than one type of limited liability company in the economy, the limited liability form most common among domestic firms is chosen. The most common form is reported by incorporation lawyers or the statistical office.
- Started operations on January 1, 2014. At that time the company purchased all the assets shown in its balance sheet and hired all its workers.
- Operates in the economy’s largest business city. For 11 economies the data are also collected for the second largest business city (table 12A.1).
- Is 100% domestically owned and has five owners, all of whom are natural persons.
- At the end of 2014, has a start-up capital of 102 times income per capita.
- Performs general industrial or commercial activities. Specifically, it produces ceramic flowerpots and sells them at retail. It does not participate in foreign trade (no import or export) and does not handle products subject to a special tax regime, for example, liquor or tobacco.
- At the beginning of 2015, owns two plots of land, one building, machinery, office equipment, computers and one truck and leases one truck.
- Does not qualify for investment incentives or any benefits apart from those related to the age or size of the company.
- Has 60 employees—4 managers, 8 assistants and 48 workers. All are nationals, and one manager is also an owner. The company pays for additional medical insurance for employees (not mandated by any law) as an additional benefit. In addition, in some economies reimbursable business travel and client entertainment expenses are considered fringe benefits. When applicable, it is assumed that the company pays the fringe benefit tax on this expense or that the benefit becomes taxable income for the employee. The case study assumes no additional salary additions for meals, transportation, education or others. Therefore, even when such benefits are frequent, they are not added to or removed from the taxable gross salaries to arrive at the labor tax or contribution calculation.
- Has a turnover of 1,050 times income per capita.
- Makes a loss in the first year of operation.
- Has a gross margin (pretax) of 20% (that is, sales are 120% of the cost of goods sold).
- Distributes 50% of its net profits as dividends to the owners at the end of the second year.
- Sells one of its plots of land at a profit at the beginning of the second year.
- Is subject to a series of detailed assumptions on expenses and transactions to further standardize the case. For example, the owner who is also a manager spends 10% of income per capita on traveling for the company (20% of this owner’s expenses are purely private, 20% are for entertaining customers, and 60% are for business travel). All financial statement variables are proportional to 2012 income per capita (this is an update from Doing Business 2013 and previous years’ reports, where the variables were proportional to 2005 income per capita). For some economies a multiple of two or three times income per capita has been used to estimate the financial statement variables. The 2012 income per capita was not sufficient to bring the salaries of all the case study employees up to the minimum wage thresholds that exist in these economies.

Assumptions about the taxes and contributions

- All the taxes and contributions recorded are those paid in the second year of operation (calendar year 2015). A tax or contribution is considered distinct if it has a different name or is collected by a different agency. Taxes and contributions with the same name and agency, but charged at different rates depending on the business, are counted as the same tax or contribution.
- The number of times the company pays taxes and contributions in a year is the number of different taxes or contributions multiplied by the frequency of payment (or withholding) for each tax. The frequency of payment includes advance payments (or withholding) as well as regular payments (or withholding).

**Tax payments**
The tax payments indicator reflects the total number of taxes and contributions paid, the method of payment, the frequency of payment, the frequency of filing and the number of agencies involved for the standardized case study company during the second year of operation (table 12.12). It includes taxes withheld by the company, such as sales tax, VAT and employee-borne labor taxes. These taxes are traditionally collected by the company from the consumer or employee on behalf of the tax agencies. Although they do not affect the income statements of the company, they add to the administrative burden of complying with the tax system and so are included in the tax payments measure.

The number of payments takes into account electronic filing. Where full electronic filing and payment is allowed and it is used by the majority of medium-size businesses, the tax is counted as paid once a year even if filings and payments are more frequent. For payments made through third parties, such as tax on interest paid by a financial institution or fuel tax paid by a fuel distributor, only one payment is included even if payments are more frequent.

Where two or more taxes or contributions are filed for and paid jointly using the same form, each of these joint payments is counted once. For example, if mandatory health insurance contributions and mandatory pension contributions are filed for and paid together, only one of these contributions would be included in the number of payments.

**Time**
Time is recorded in hours per year. The indicator measures the time taken to prepare, file and pay three major types of taxes and contributions: the corporate income tax, value added or sales tax, and labor taxes, including payroll taxes and social contributions. Preparation time includes the time to collect all information necessary to compute the tax payable and to calculate the amount payable. If separate accounting books must be kept for tax purposes—or separate calculations made—the time associated with these processes is included. This extra time is included only if the regular accounting work is not enough to fulfill the tax accounting requirements. Filing time includes the time to complete all necessary tax return forms and file the relevant returns at the tax authority. Payment time considers the hours needed to make the payment online or in person. Where taxes and contributions are paid in person, the time includes delays while waiting.
**Total tax rate**

The total tax rate measures the amount of taxes and mandatory contributions borne by the business in the second year of operation, expressed as a share of commercial profit. *Doing Business 2017* reports the total tax rate for calendar year 2015. The total amount of taxes borne is the sum of all the different taxes and contributions payable after accounting for allowable deductions and exemptions. The taxes withheld (such as personal income tax) or collected by the company and remitted to the tax authorities (such as VAT, sales tax or goods and service tax) but not borne by the company are excluded. The taxes included can be divided into five categories: profit or corporate income tax, social contributions and labor taxes paid by the employer (for which all mandatory contributions are included, even if paid to a private entity such as a required pension fund), property taxes, turnover taxes and other taxes (such as municipal fees and vehicle taxes). Fuel taxes are no longer included in the total tax rate because of the difficulty of computing these taxes in a consistent way for all economies covered. The fuel tax amounts are in most cases very small, and measuring these amounts is often complicated because they depend on fuel consumption. Fuel taxes continue to be counted in the number of payments.

The total tax rate is designed to provide a comprehensive measure of the cost of all the taxes a business bears. It differs from the statutory tax rate, which merely provides the factor to be applied to the tax base. In computing the total tax rate, the actual tax payable is divided by commercial profit. Data for Iraq are provided as an example (table 12.13).

Commercial profit is essentially net profit before all taxes borne. It differs from the conventional profit before tax, reported in financial statements. In computing profit before tax, many of the taxes borne by a firm are deductible. In computing commercial profit, these taxes are not deductible. Commercial profit therefore presents a clear picture of the actual profit of a business before any of the taxes it bears in the course of the fiscal year.

Commercial profit is computed as sales minus cost of goods sold, minus gross salaries, minus administrative expenses, minus other expenses, minus provisions, plus capital gains (from the property sale) minus interest expense, plus interest income and minus commercial depreciation. To compute the commercial depreciation, a straight-line depreciation method is applied, with the following rates: 0% for the land, 5% for the building, 10% for the machinery, 33% for the computers, 20% for the office equipment, 20% for the truck and 10% for business development expenses. Commercial profit amounts to 59.4 times income per capita.

The methodology for calculating the total tax rate is broadly consistent with the Total Tax Contribution framework developed by PwC and the calculation within this framework for taxes borne. But while the work undertaken by PwC is usually based on data received from the largest companies in the economy, *Doing Business* focuses on a case study for a standardized medium-size company.

**Postfiling index**

The postfiling index is based on the actual tax payable divided by commercial profit and time to complete a corporate income tax audit. If both VAT (or GST) and corporate income tax apply, the postfiling index is the simple average of the distance to frontier scores for each of the four components. If only VAT (or GST) or corporate income tax applies, the postfiling index is the simple average of the scores for only the two components pertaining to the applicable tax. If neither VAT (or GST) nor corporate income tax applies, the postfiling index is not included in the ranking of the ease of paying taxes.

The indicators are based on expanded case study assumptions.

**Assumptions about the VAT refund process**

- In June 2015, TaxpayerCo. makes a large capital purchase: one additional machine for manufacturing pots.
- The value of the machine is 65 times income per capita of the economy.
- Sales are equally spread per month (that is, 1,050 times income per capita divided by 12).
- Cost of goods sold are equally expensed per month (that is, 875 times income per capita divided by 12).
- The seller of the machinery is registered for VAT or general sales tax (GST).
- Excess input VAT incurred in June will be fully recovered after four consecutive months if the VAT or GST rate is the same for inputs, sales and the machine and the tax reporting period is every month.

### TABLE 12.13 Computing the total tax rate for Iraq

<table>
<thead>
<tr>
<th>Type of tax (tax base)</th>
<th>Statutory rate $r$ (%)</th>
<th>Statutory tax base $b$ (ID)</th>
<th>Actual tax payable $a = r \times b$ (ID)</th>
<th>Commercial profit $c$ (ID)</th>
<th>Total tax rate $t = a/c$ (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate income tax (taxable income)</td>
<td>15</td>
<td>432,461,855</td>
<td>64,869,278</td>
<td>453,188,210</td>
<td>14.3</td>
</tr>
<tr>
<td>Employer-paid social security contributions (taxable wages)</td>
<td>12</td>
<td>511,191,307</td>
<td>61,342,957</td>
<td>453,188,210</td>
<td>13.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>126,212,235</strong></td>
<td></td>
<td><strong>27.8</strong></td>
<td></td>
</tr>
</tbody>
</table>

Source: Doing Business database.

Note: Commercial profit is assumed to be 59.4 times income per capita. ID is Iraqi dinar.

* Profit before all taxes borne.
Assumptions about the corporate income tax audit process

- An error in the calculation of the income tax liability (for example, use of incorrect tax depreciation rates, or incorrectly treating an expense as tax deductible) leads to an incorrect income tax return and consequently an underpayment of corporate income tax.
- TaxpayerCo. discovered the error and voluntarily notified the tax authority of the error in the corporate income tax return.
- The value of the underpaid income tax liability is 5% of the corporate income tax liability due.
- TaxpayerCo. submits the corrected information after the deadline for submitting the annual tax return, but within the tax assessment period.

Time to comply with VAT refund

Time is recorded in hours. The indicator has two parts:

- The process of claiming a VAT or GST refund. Time includes: time spent by TaxpayerCo. on gathering VAT information from internal sources, including time spent on any additional analysis of accounting information and calculating the VAT refund amount; time spent by TaxpayerCo. on preparing the VAT refund claim; time spent by TaxpayerCo. preparing any additional documents that are needed to substantiate the claim for the VAT refund; time spent making representation at the tax office if required and time spent by TaxpayerCo. completing any other mandatory activities or tasks associated with the VAT or GST refund. Input VAT will exceed Output VAT in June 2015 (Table 12.14).
- The process of an audit if the case scenario is likely to trigger an audit. Time includes: time spent by TaxpayerCo. on gathering information and preparing any documentation (information such as receipts, financial statements, pay stubs) as required by the tax auditor; time spent by TaxpayerCo. in submitting the documents requested by the auditor.

A total estimate of zero hours is recorded if the process of claiming a VAT or GST refund is done automatically within the standard VAT or GST return without the need to complete any additional section or part of the return, no additional documents or tasks are required as a result of the input tax credit and the case scenario is unlikely to trigger an audit. It is assumed that in cases where taxpayers are required to submit a specific form for a VAT refund request and additional documents these are submitted at the same time as the VAT return.

An estimate of half an hour is recorded for submission of documents requested during an audit in the case of an audit taking place if the submission is done electronically and takes a matter of minutes. An estimate of zero hours is recorded in the case of a field audit if documents are submitted in person and at the tax payer’s premises.

In Kosovo, for example, taxpayers spend 30 hours complying with the process of claiming a VAT refund. Taxpayers must submit a special form for a VAT refund request in addition to the standard VAT return. Taxpayers spend two hours gathering information from internal sources and accounting records and 1 hour to prepare the form. Taxpayers must also prepare and have available for review all purchase and sales invoices for the past three months, a business explanation of VAT overpayment for large purchases or investments, bank statements, any missing tax declaration and a copy of fiscal and VAT certificates. Taxpayers spend four hours preparing these additional documents. Taxpayers must also appear in person at the tax office to explain the VAT refund claim and the reasons for the excess input VAT in the month of June. This takes three hours. Additionally, the claim for a VAT refund would trigger a full audit at the taxpayer’s premises. Taxpayers spend 20 hours preparing the documents requested by the auditor including purchase and sales invoices, bills, bank transactions, records on accounting software, tax returns and contracts. Taxpayers submit the documents to the auditor in person at their premises (zero hours for submission).

Time to obtain VAT refund

Time is recorded in weeks. Time measures the total waiting time to receive a VAT or GST refund from the moment the request has been submitted. If the case scenario is likely to trigger an audit, time includes time spent by TaxpayerCo. interacting with the auditor from the moment an audit begins until there are no further interactions between TaxpayerCo. and the auditor (including the various rounds of interactions between TaxpayerCo. and the auditor) and the time spent waiting for the tax auditor to issue the final tax assessment from the moment TaxpayerCo. has submitted all relevant information and documents and there are no further interactions between TaxpayerCo. and the auditor.

<table>
<thead>
<tr>
<th>TABLE 12.14</th>
<th>Computing the value of the VAT/GST input tax credit for Albania</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sales</strong> =</td>
<td>ALL 37,398,864.84</td>
</tr>
<tr>
<td>VAT rate</td>
<td>20%</td>
</tr>
<tr>
<td>Output VAT</td>
<td>( R \times Sales )</td>
</tr>
<tr>
<td><strong>Capital purchase (A)</strong> =</td>
<td>ALL 27,782,013.88</td>
</tr>
<tr>
<td>20%</td>
<td></td>
</tr>
<tr>
<td><strong>Raw material expenses (B)</strong> =</td>
<td>ALL 31,165,720.70</td>
</tr>
<tr>
<td>20%</td>
<td></td>
</tr>
<tr>
<td><strong>VAT refund</strong></td>
<td>( (R \times A + R \times B) − (R \times Sales) )</td>
</tr>
</tbody>
</table>

Source: Doing Business database.
The process of notifying the tax authorities of the error, amending the return and making additional payment. Time includes: time spent by TaxpayerCo. gathering information and preparing the documents required to notify the tax authorities; time spent by TaxpayerCo. in submitting the documents; and time spent by TaxpayerCo. in making the additional tax payment.

The process of an audit if the case scenario is likely to trigger an audit. Time includes: time spent by TaxpayerCo. on gathering information and preparing any documentation (information such as receipts, financial statements, pay stubs) as required by the tax auditor; and time spent by TaxpayerCo. in submitting the documents requested by the auditor.

An estimate of half an hour is recorded for submission of documents or payment of the income tax liability due if the submission or payment is done electronically and takes several minutes. An estimate of zero hours is recorded in the case of a field audit if documents are submitted in person and at the taxpayer’s premises.

In the Slovak Republic, for example, taxpayers would submit an amended corporate income tax return electronically. It takes taxpayers one hour to correct the error in the return, half an hour to submit the amended return online and half an hour to make the additional payment online. Amending a corporate income tax return per the case study scenario in the Slovak Republic would not trigger an audit. This brings the total compliance time to two hours.

**Time to comply with corporate income tax audit**

Time is recorded in hours. The indicator has two parts:

- The process of notifying the tax authorities of the error, amending the return and making additional payment.
- The process of an audit if the case scenario is likely to trigger an audit.

In the Slovak Republic, for example, taxpayers would submit an amended corporate income tax return electronically. It takes taxpayers one hour to correct the error in the return, half an hour to submit the amended return online and half an hour to make the additional payment online. Amending a corporate income tax return per the case study scenario in the Slovak Republic would not trigger an audit. This brings the total compliance time to two hours.

**Time to complete a corporate income tax audit**

Time is recorded in weeks. Time includes the time spent by TaxpayerCo. interacting with the auditor from the moment...
an audit begins until there are no further interactions between TaxpayerCo. and the auditor (including the various rounds of interactions between TaxpayerCo. and the auditor). Time also includes the time spent waiting for the tax auditor to issue the final tax assessment—from the moment TaxpayerCo. has submitted all relevant information and documents and there are no further interactions between TaxpayerCo. and the auditor.

Time to complete a corporate income tax audit is recorded as zero if the case study scenario is unlikely to trigger an audit. In Switzerland, for example, taxpayers are subject to a single issue audit conducted at the taxpayer’s premises as a result of amending a corporate income tax return per the case study scenario. Taxpayers interact for a total of four days (0.6 weeks) with the auditor and wait for four weeks until the final assessment is issued by the auditor, resulting in a total of 4.6 weeks to complete a corporate income tax audit.

If an economy does not levy corporate income tax, the economy will not be scored on the two indicators: time to comply with corporate income tax audit and time to complete a corporate income tax audit. This is the case in Vanuatu.

**REFORMS**

The paying taxes indicator set tracks changes related to the different taxes and mandatory contributions that a medium-size company must pay in a given year, the administrative burden of paying taxes and contributions and the administrative burden of complying with two postfiling processes (VAT refund, and tax audit) per calendar year. Depending on the impact on the data, certain changes are classified as reforms and listed in the summaries of Doing Business reforms in 2015/2016 section of the report in order to acknowledge the implementation of significant changes. Reforms are divided into two types: those that make it easier to do business and those changes that make it more difficult to do business. The paying taxes indicator set uses one criterion to recognize a reform.

The aggregate gap on the overall distance to frontier of the indicator set is used to assess the impact of data changes. Any data update that leads to a change of 2 or more percentage points on the relative distance to frontier gap is classified as a reform (for more details on the relative gap, see the chapter on the distance to frontier and ease of doing business ranking). For example if the implementation of a new electronic system for filing or paying one of the three major taxes (corporate income tax, VAT or GST, labor taxes and mandatory contributions) reduces time and/or the number of payments in a way that the overall relative gap decreases by 2 percentage points or more, such change is classified as a reform. Alternatively, minor updates to tax rates or fixed charges or other smaller changes in the indicators that have an aggregate impact less than 2 percentage points on the relative gap are not classified as a reform, but their impact is still reflected on the most updated indicators for this indicator set.

The data details on paying taxes can be found for each economy at http://www.doingbusiness.org. This methodology was developed by Djankov and others (2010).

**TRADING ACROSS BORDERS**

Doing Business records the time and cost associated with the logistical process of exporting and importing goods. Doing Business measures the time and cost (excluding tariffs) associated with three sets of procedures—documentary compliance, border compliance and domestic transport—within the overall process of exporting or importing a shipment of goods. Figure 12.15, using the example of Brazil (as exporter) and China (as importer), shows the process of exporting a shipment from a warehouse in the origin economy to a warehouse in an overseas trading partner through a port. Figure 12.16, using the example of Kenya
For each of the 190 economies covered, the import and export case studies, a port or border is defined as a place of traded goods and the transactions: the time and cost for documentary compliance and border compliance to export and import (figure 12.17).

Although Doing Business collects and publishes data on the time and cost for domestic transport, it does not use these data in calculating the distance to frontier scores for trading across borders. The main reason for this is that the time and cost for domestic transport are affected by many external factors—such as the geography and topography of the transit territory, road capacity and general infrastructure, proximity to the nearest port or border, and the location of warehouses where the traded goods are stored—and so are not directly influenced by an economy’s trade policies and reforms.

The data on trading across borders are gathered through a questionnaire administered to local freight forwarders, customs brokers, port authorities and traders. Questionnaire responses are verified through several rounds of follow-up communication with respondents as well as by contacting third parties and consulting public sources. The questionnaire data are confirmed through teleconference calls or on-site visits in most economies.

If an economy has no formal, large-scale, private sector cross-border trade taking place as a result of government restrictions, armed conflict or a natural disaster, it is considered a “no practice” economy. A “no practice” economy receives a distance to frontier score of 0 for all the trading across borders indicators.

**Assumptions of the case study**

To make the data comparable across economies, several assumptions are made about the traded goods and the transactions:

- For each of the 190 economies covered by Doing Business, it is assumed that a shipment travels from a warehouse in the largest business city of the exporting economy to a warehouse in the largest business city of the importing economy. For 11 economies the data are also collected, under the same case study assumptions, for the second largest business city (table 12A.1).
- The import and export case studies assume different traded products. It is assumed that each economy imports a standardized shipment of 15 metric tons of containerized auto parts (HS 8708) from its natural import partner—the economy from which it imports the largest value (price times quantity) of auto parts. It is assumed that each economy exports the product of its comparative advantage (defined by the largest export value) to its natural export partner—the economy that is the largest purchaser of this product. Precious metal and gems, mineral fuels, oil products, live animals, residues and waste of foods and products as well as pharmaceuticals are excluded from the list of possible export products, however, and in these cases the second largest product category is considered as needed.
- A shipment is a unit of trade. Export shipments do not necessarily need to be containerized, while import shipments of auto parts are assumed to be containerized.
- If government fees are determined by the value of the shipment, the value is assumed to be $50,000.
- The product is new, not secondhand or used merchandise.
- The exporting/importing firm hires and pays for a freight forwarder or customs broker (or both) and pays for all costs related to international shipping, domestic transport, clearance and mandatory inspections by customs and other government agencies, port or border handling, documentary compliance fees and the like.
- The mode of transport is the one most widely used for the chosen export or import product and the trading partner, as is the seaport or land border crossing.
- All electronic submissions of information requested by any government agency in connection with the shipment are considered to be documents obtained, prepared and submitted during the export or import process.
- A port or border is defined as a place (seaport or land border crossing) where merchandise can enter or leave an economy.
- Government agencies considered relevant are agencies such as customs, port authorities, road police, border guards, standardization agencies, ministries or departments of agriculture or industry, national security agencies, central banks and any other government authorities.

**Time**

Time is measured in hours, and 1 day is 24 hours (for example, 22 days are recorded...
as $22 \times 24 = 528$ hours). If customs clearance takes 7.5 hours, the data are recorded as is. Alternatively, suppose that documents are submitted to a customs agency at 8:00 a.m., are processed overnight and can be picked up at 8:00 a.m. the next day. In this case the time for customs clearance would be recorded as 24 hours because the actual procedure took 24 hours.

**Cost**

Insurance cost and informal payments for which no receipt is issued are excluded from the costs recorded. Costs are reported in U.S. dollars. Contributors are asked to convert local currency into U.S. dollars based on the exchange rate prevailing on the day they answer the questionnaire. Contributors are private sector experts in international trade logistics and are informed about exchange rates and their movements.

**Documentary compliance**

Documentary compliance captures the time and cost associated with compliance with the documentary requirements of all government agencies of the origin economy, the destination economy and any transit economies (table 12.15). The aim is to measure the total burden of preparing the bundle of documents that will enable completion of the international trade for the product and partner pair assumed in the case study. As a shipment moves from Mumbai to New York City, for example, the freight forwarder must prepare and submit documents to the customs agency in India, to the port authorities in Mumbai and to the customs agency in New York City.

The time and cost for documentary compliance include the time and cost for obtaining documents (such as time spent to get the document issued and stamped); preparing documents (such as time spent gathering information to complete the customs declaration or certificate of origin); processing documents (such as time spent waiting for the relevant authority to issue a phytosanitary certificate); presenting documents (such as time spent showing a port terminal receipt to port authorities); and submitting documents (such as time spent submitting a customs declaration to the customs agency in person or electronically).

All electronic or paper submissions of information requested by any government agency in connection with the shipment are considered to be documents obtained, prepared and submitted during the export or import process. All documents prepared by the freight forwarder or customs broker for the product and partner pair assumed in the case study are included regardless of whether they are required by law or in practice. Any documents prepared and submitted so as to get access to preferential treatment—for example, a certificate of origin—are included in the calculation of the time and cost for documentary compliance. Any documents prepared and submitted because of a perception that they ease the passage of the shipment are also included (for example, freight forwarders may prepare a packing list because in their experience this reduces the probability of physical or other intrusive inspections).

In addition, any documents that are mandatory for exporting or importing are included in the calculation of time and cost. Documents that need to be obtained only once are not counted, however. And *Doing Business* does not include documents needed to produce and sell in the domestic market—such as certificates of third-party safety standards testing that may be required to sell toys domestically—unless a government agency needs to see these documents during the export process.

**Border compliance**

Border compliance captures the time and cost associated with compliance with the economy’s customs regulations and with regulations relating to other inspections that are mandatory in order for the shipment to cross the economy’s border, as well as the time and cost for handling that takes place at its port or border. The time and cost for this segment include time and cost for customs clearance and inspection procedures conducted by other government agencies. For example, the time and cost for conducting a phytosanitary inspection would be included here.

The computation of border compliance time and cost depends on where the

<table>
<thead>
<tr>
<th>TABLE 12.15</th>
<th>What do the indicators on the time and cost to export and import cover?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Documentary compliance</strong></td>
<td>Obtaining, preparing and submitting documents during transport, clearance, inspections and port or border handling in origin economy</td>
</tr>
<tr>
<td></td>
<td>Obtaining, preparing and submitting documents required by destination economy and any transit economies</td>
</tr>
<tr>
<td></td>
<td>Covers all documents required by law and in practice, including electronic submissions of information as well as non-shipment-specific documents necessary to complete the trade</td>
</tr>
<tr>
<td><strong>Border compliance</strong></td>
<td>Customs clearance and inspections by customs</td>
</tr>
<tr>
<td></td>
<td>Inspections by other agencies (if applied to more than 10% of shipments)</td>
</tr>
<tr>
<td></td>
<td>Port or border handling at most widely used port or border of economy</td>
</tr>
<tr>
<td><strong>Domestic transport</strong></td>
<td>Loading and unloading of shipment at warehouse, dry port or border</td>
</tr>
<tr>
<td></td>
<td>Transport by most widely used mode between warehouse and terminal or dry port</td>
</tr>
<tr>
<td></td>
<td>Transport by most widely used mode between terminal or dry port and most widely used border or port</td>
</tr>
<tr>
<td></td>
<td>Traffic delays and road police checks while shipment is en route</td>
</tr>
</tbody>
</table>
border compliance procedures take place, who requires and conducts the procedures and what is the probability that inspections will be conducted. If all customs clearance and other inspections take place at the port or border, the time estimate for border compliance takes this simultaneity into account. It is entirely possible that the border compliance time and cost could be negligible or zero, as in the case of trade between members of the European Union or other customs unions.

If some or all customs or other inspections take place at other locations, the time and cost for these procedures are added to the time and cost for those that take place at the port or border. In Kazakhstan, for example, all customs clearance and inspections take place at a customs post in Almaty that is not at the land border between Kazakhstan and China. In this case border compliance time is the sum of the time spent at the terminal in Almaty and the handling time at the border.

Doing Business asks contributors to estimate the time and cost for clearance and inspections by customs agencies—defined as documentary and physical inspections for the purpose of calculating duties by verifying product classification, confirming quantity, determining origin and checking the veracity of other information on the customs declaration. (This category includes all inspections aimed at preventing smuggling.) These are clearance and inspection procedures that take place in the majority of cases and thus are considered the “standard” case. The time and cost estimates capture the efficiency of the customs agency of the economy.

Doing Business also asks contributors to estimate the total time and cost for clearance and inspections by customs and all other government agencies for the specified product. These estimates account for inspections related to health, safety, phytosanitary standards, conformity and the like, and thus capture the efficiency of agencies that require and conduct these additional inspections.

If inspections by agencies other than customs are conducted in 20% or fewer cases, the border compliance time and cost measures take into account only clearance and inspections by customs (the standard case). If inspections by other agencies take place in more than 20% of cases, the time and cost measures account for clearance and inspections by all agencies. Different types of inspections may take place with different probabilities—for example, scanning may take place in 100% of cases while physical inspection occurs in 5% of cases. In situations like this, Doing Business would count the time only for scanning because it happens in more than 20% of cases while physical inspection does not. The border compliance time and cost for an economy do not include the time and cost for compliance with the regulations of any other economy.

**Domestic transport**

Domestic transport captures the time and cost associated with transporting the shipment from a warehouse in the largest business city of the economy to the most widely used seaport, airport or land border of the economy. For 11 economies the data are also collected for the second largest business city (table 12A.1). This set of procedures captures the time for (and cost of) the actual transport; any traffic delays and road police checks; as well as time spent on loading or unloading at the warehouse or border. For a coastal economy with an overseas trading partner, domestic transport captures the time and cost from the loading of the shipment at the warehouse until the shipment reaches the economy’s port (figure 12.15). For an economy trading through a land border, domestic transport captures the time and cost from the loading of the shipment at the warehouse until the shipment reaches the economy’s land border (figure 12.16).

The time and cost estimates are based on the most widely used mode of transport (truck, train, riverboat) and the most widely used route (road, border posts) as reported by contributors. In the overwhelming majority of cases all contributors in an economy agree on the mode and route. In the few remaining cases Doing Business consulted additional contributors to get a sense of why there was disagreement. In these cases time and cost estimates are based on the mode and route chosen by the majority of contributors. For the 11 economies for which data are collected for both the largest and the second largest business city, Doing Business allows the most widely used route and the most widely used mode of transport to be different for the two cities. For example, shipments from Delhi are transported by train to Mundra port for export, while shipments from Mumbai travel by truck to Nhava Sheva port to be exported.

In the export case study, as noted, Doing Business does not assume a containerized shipment, and time and cost estimates may be based on the transport of 15 tons of noncontainerized products. In the import case study auto parts are assumed to be containerized. In the cases where cargo is containerized, the time and cost for transport and other procedures are based on a shipment consisting of homogeneous cargo belonging to a single Harmonized System (HS) classification code. This assumption is particularly important for inspections, because shipments of homogeneous products are often subject to fewer and shorter inspections than shipments of products belonging to various HS codes.

In some cases the shipment travels from the warehouse to a customs port or terminal for clearance or inspections and then travels onward to the port or border. In these cases the domestic transport time is the sum of the time for both transport segments. The time and cost for clearance or inspections...
are included in the measures for border compliance, however, not in those for domestic transport.

**REFORMS**
The trading across borders indicator set records the time and cost associated with the logistical process of exporting and importing goods every year. Depending on the impact on the data, certain changes are classified as reforms and listed in the summaries of Doing Business reforms in 2015/16 section of the report in order to acknowledge the implementation of significant changes. Reforms are divided into two types: those that make it easier to do business and those that make it more difficult to do business. The trading across borders indicator uses a standard criterion to recognize a reform.

The aggregate gap on the overall distance to frontier of the indicator set is used to assess the impact of data changes. Any data update that leads to a change of 2 or more percentage points on the relative distance to frontier gap is classified as a reform (for more details on the relative gap, see the chapter on the distance to frontier and ease of doing business ranking). For example if the implementation of a single window system reduces time or cost in a way that the overall relative gap decreases by 2 percentage points or more, such change is classified as a reform. Minor shipping fee updates or other small changes on the indicators that have an aggregate impact of less than 2 percentage points on the relative gap are not classified as a reform, yet, but their impact is still reflected on the most updated indicators for this indicator set.

The data details on trading across borders can be found for each economy at http://www.doingbusiness.org.

**ENFORCING CONTRACTS**
Doing Business measures the time and cost for resolving a commercial dispute through a local first-instance court (table 12.16) and the quality of judicial processes index, evaluating whether each economy has adopted a series of good practices that promote quality and efficiency in the court system. The data are collected through study of the codes of civil procedure and other court regulations as well as questionnaires completed by local litigation lawyers and judges. The ranking of economies on the ease of enforcing contracts is determined by sorting their distance to frontier scores for enforcing contracts. These scores are the simple average of the distance to frontier scores for each of the component indicators (figure 12.18).

**EFFICIENCY OF RESOLVING A COMMERCIAL DISPUTE**
The data on time and cost are built by following the step-by-step evolution of a commercial sale dispute (figure 12.19). The data are collected for a specific court for each city covered, under the assumptions about the case described below. The court is the one with jurisdiction over disputes worth 200% of income per capita or $5,000, whichever is greater. The name of the relevant court in each economy is published on the Doing Business website at http://www.doingbusiness.org/data/exploretopics/enforcing-contracts. For the 11 economies for which the data are also collected for the second largest business city, the name of the relevant court in that city is given as well.

**Assumptions about the case**
- The value of the claim is equal to 200% of the economy’s income per capita or $5,000, whichever is greater.
- The dispute concerns a lawful transaction between two businesses (Seller and Buyer), both located in the economy’s largest business city. For 11 economies the data are also collected for the second largest business city (table 12A.1). Pursuant to a contract between the businesses, Seller sells some custom-made furniture to Buyer worth 200% of the economy’s income per capita or $5,000, whichever is greater. After Seller delivers the goods

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**TABLE 12.16  What do the indicators on the efficiency of resolving a commercial dispute measure?**

<table>
<thead>
<tr>
<th>Time required to enforce a contract through the courts (calendar days)</th>
<th>Cost required to enforce a contract through the courts (% of claim)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time to file and serve the case</td>
<td>Average attorney fees</td>
</tr>
<tr>
<td>Time for trial and to obtain the judgment</td>
<td>Court costs</td>
</tr>
<tr>
<td>Time to enforce the judgment</td>
<td>Enforcement costs</td>
</tr>
</tbody>
</table>

**FIGURE 12.18  Enforcing contracts: efficiency and quality of commercial dispute resolution**

Rankings are based on distance to frontier scores for three indicators:

- **Time**
- **Cost**
- **Quality of judicial processes index**

Use of good practices promoting quality and efficiency

**FIGURE 12.19  What are the time and cost to resolve a commercial dispute through a local first-instance court?**

- **Company A (seller & plaintiff)**
- **Commercial dispute**
- **Company B (buyer & defendant)**

- **Filing & service**
- **Trial & judgment**
- **Enforcement**

---
to Buyer, Buyer refuses to pay the contract price, alleging that the goods are not of adequate quality. Because they were custom-made, Seller is unable to sell them to anyone else.

- Seller (the plaintiff) sues Buyer (the defendant) to recover the amount under the sales agreement. The dispute is brought before the court located in the economy’s largest business city with jurisdiction over commercial cases worth 200% of income per capita or $5,000, whichever is greater. As noted, for 11 economies the data are also collected for the second largest business city.
- At the outset of the dispute, Seller decides to attach Buyer’s movable assets (for example, office equipment and vehicles) because Seller fears that Buyer may hide its assets or otherwise become insolvent.
- The claim is disputed on the merits because of Buyer’s allegation that the quality of the goods was not adequate. Because the court cannot decide the case on the basis of documentary evidence or legal title alone, an expert opinion is given on the quality of the goods. If it is standard practice in the economy for each party to call its own expert witness, the parties each call one expert witness. If it is standard practice for the judge to appoint an independent expert, the judge does so. In this case the judge does not allow opposing expert testimony.
- Following the expert opinion, the judge decides that the goods delivered by Seller were of adequate quality and that Buyer must pay the contract price. The judge thus renders a final judgment that is 100% in favor of Seller.
- Buyer does not appeal the judgment. Seller decides to start enforcing the judgment as soon as the time allocated by law for appeal lapses.
- Seller takes all required steps for prompt enforcement of the judgment. The money is successfully collected through a public sale of Buyer’s movable assets (for example, office equipment and vehicles).

**Time**

Time is recorded in calendar days, counted from the moment the plaintiff decides to file the lawsuit in court until payment. This includes both the days when actions take place and the waiting periods in between. The average duration of three different stages of dispute resolution is recorded: the completion of service of process (time to file and serve the case), the issuance of judgment (time for trial and to obtain the judgment) and the recovery of the claim value through a public sale (time for enforcement of the judgment).

**Cost**

Cost is recorded as a percentage of the claim value, assumed to be equivalent to 200% of income per capita or $5,000, whichever is greater. Three types of costs are recorded: court costs, enforcement costs and average attorney fees.

Court costs include all costs that Seller (plaintiff) must advance to the court, regardless of the final cost borne by Seller. Court costs include the fees that must be paid to obtain an expert opinion. Enforcement costs are all costs that Seller (plaintiff) must advance to enforce the judgment through a public sale of Buyer’s movable assets, regardless of the final cost borne by Seller. Average attorney fees are the fees that Seller (plaintiff) must advance to a local attorney to represent Seller in the standardized case, regardless of final reimbursement. Bribes are not taken into account.

**QUALITY OF JUDICIAL PROCESSES**

The quality of judicial processes index measures whether each economy has adopted a series of good practices in its court system in four areas: court structure and proceedings, case management, court automation and alternative dispute resolution (table 12.17).

**Court structure and proceedings index**

The court structure and proceedings index has five components:

- Whether a specialized commercial court or a fast-track procedure for small claims is in place. A score of 1.5 is assigned if yes; 0 if no.
- Whether a small claims court or a fast-track procedure for small claims is in place. A score of 1 is assigned if such a court or procedure is in place, it is applicable to all civil cases and the law sets a cap on the value of cases that can be handled through this court or procedure. If small claims are handled by a stand-alone court, the point is assigned only if this court applies a simplified procedure. An additional score of 0.5 is assigned if parties can represent themselves before this court or during this procedure. If no small claims court or simplified procedure is in place, a score of 0 is assigned.
- Whether plaintiffs can obtain pretrial attachment of the defendant’s movable assets if they fear the assets may be moved out of the jurisdiction or otherwise dissipated. A score of 1 is assigned if yes; 0 if no.
- Whether cases are assigned randomly and automatically to judges throughout the competent court. A score of 1 is assigned if the assignment of cases is random and automated; 0.5 if it is random but not automated; 0 if it is neither random nor automated.
- Whether a woman’s testimony carries the same evidentiary weight in court as a man’s. A score of -1 is assigned if the law differentiates between the evidentiary value of a woman’s testimony and that of a man; 0 if it does not.

The index ranges from 0 to 5, with higher values indicating a more sophisticated and streamlined court structure. In Bosnia and Herzegovina, for example, a specialized commercial court is in place (a score of 1.5), and small claims can be resolved through a dedicated court in which self-representation is allowed (a score of 1.5). Plaintiffs can obtain pretrial attachment...
of the defendant’s movable assets if they fear dissipation during trial (a score of 1). Cases are assigned randomly through an electronic case management system (a score of 1). A woman’s testimony carries the same evidentiary weight in court as a man’s (a score of 0). Adding these numbers gives Bosnia and Herzegovina a score of 5 on the court structure and proceedings index.

**Case management index**

The case management index has six components:

- Whether any of the applicable laws or regulations on civil procedure contain time standards for at least three of the following key court events: (i) service of process; (ii) first hearing; (iii) filing of the statement of defense; (iv) completion of the evidence period; (v) filing of testimony by expert; and (vi) submission of the final judgment. A score of 1 is assigned if such time standards are available and respected in more than 50% of cases; 0.5 if they are available but not respected in more than 50% of cases; 0 if there are time standards for less than three of these key court events or for none.

- Whether there are any laws regulating the maximum number of adjournments or continuances that can be granted, whether adjournments are limited by law to unforeseen and exceptional circumstances and whether these rules are respected in more than 50% of cases. A score of 1 is assigned if all three conditions are met; 0.5 if only two of the three conditions are met; 0 if only one of the conditions is met or if none are.

- Whether there are any performance measurement reports that can be generated about the competent court to monitor the court’s performance, to track the progress of cases through the court and to ensure compliance with established time standards. A score of 1 is assigned if at least two of the following four reports are made publicly available: (i) time to disposition report; (ii) clearance rate report; (iii) age of pending cases report; and (iv) single case progress report. A score of 0 is assigned if only one of these reports is available or if none are.

- Whether a pretrial conference is among the case management techniques used before the competent court and at least three of the following issues are discussed during the pretrial conference: (i) scheduling (including the time frame for filing motions and other documents with the court); (ii) case complexity and projected length of trial; (iii) possibility of settlement or alternative dispute resolution; (iv) exchange of witness lists; (v) evidence; (vi) jurisdiction and other procedural issues; and (vii) narrowing down of contentious issues. A score of 1 is assigned if a pretrial conference in which at least three of these events are discussed is held within the competent court; 0 if not.

- Whether judges within the competent court can use an electronic case management system for at least four of the following purposes: (i) to access laws, regulations and case law; (ii) to automatically generate a hearing schedule for all cases on their docket; (iii) to send notifications (for example, e-mails) to lawyers; (iv) to track the status of a case on their docket; (v) to view and manage case documents (briefs, motions); (vi) to assist in writing judgments; (vii) to semiautomatically generate court orders; and (viii) to view court orders and judgments in a particular case. A score of 1 is assigned if an electronic case management system is available that judges can use for at least four of these purposes; 0 if not.

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**TABLE 12.17 What do the indicators on the quality of judicial processes measure?**

<table>
<thead>
<tr>
<th>Court structure and proceedings index (0–5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Availability of specialized commercial court, division or section</td>
</tr>
<tr>
<td>Availability of small claims court and/or simplified procedure for small claims</td>
</tr>
<tr>
<td>Availability of pretrial attachment</td>
</tr>
<tr>
<td>Criteria used to assign cases to judges</td>
</tr>
<tr>
<td>Evidentiary weight of woman’s testimony</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Case management index (0–6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulations setting time standards for key court events</td>
</tr>
<tr>
<td>Regulations on adjournments and continuances</td>
</tr>
<tr>
<td>Availability of performance measurement mechanisms</td>
</tr>
<tr>
<td>Availability of pretrial conference</td>
</tr>
<tr>
<td>Availability of electronic case management system for judges</td>
</tr>
<tr>
<td>Availability of electronic case management system for lawyers</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Court automation index (0–4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability to file initial complaint electronically</td>
</tr>
<tr>
<td>Ability to serve initial complaint electronically</td>
</tr>
<tr>
<td>Ability to pay court fees electronically</td>
</tr>
<tr>
<td>Publication of judgments</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Alternative dispute resolution index (0–3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arbitration</td>
</tr>
<tr>
<td>Voluntary mediation and/or conciliation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quality of judicial processes index (0–18)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sum of the court structure and proceedings, case management, court automation and alternative dispute resolution indices</td>
</tr>
</tbody>
</table>
Whether lawyers can use an electronic case management system for at least four of the following purposes: (i) to access laws, regulations and case law; (ii) to access forms to be submitted to the court; (iii) to receive notifications (for example, e-mails); (iv) to track the status of a case; (v) to view and manage case documents (briefs, motions); (vi) to file briefs and documents with the court; and (vii) to view court orders and decisions in a particular case. A score of 1 is assigned if an electronic case management system is available that lawyers can use for at least four of these purposes; 0 if not.

The index ranges from 0 to 6, with higher values indicating a more qualitative and efficient case management system. In Croatia, for example, time standards for at least three key court events are established in applicable civil procedure instruments and are respected in more than 50% of cases (a score of 1). The law stipulates that adjournments can be granted only for unforeseen and exceptional circumstances and this rule is respected in more than 50% of cases (a score of 0.5). A time to disposition report and a clearance rate report can be generated about the competent court (a score of 1). A pretrial conference is among the case management techniques used before the Zagreb Commercial Court (a score of 1). An electronic case management system satisfying the criteria outlined above is available to judges (a score of 1) and to lawyers (a score of 1). Adding these numbers gives Croatia a score of 5.5 on the case management index, the highest score attained by any economy on this index.

**Court automation index**

The court automation index has four components:

- Whether the initial complaint can be served on the defendant electronically, through a dedicated system or by e-mail, fax or SMS (short message service). A score of 1 is assigned if yes; 0 if no.
- Whether court fees can be paid electronically, either through a dedicated platform or through online banking. A score of 1 is assigned if yes; 0 if no.
- Whether judgments rendered by local courts are made available to the general public through publication in official gazettes, in newspapers or on the internet. A score of 1 is assigned if judgments rendered in commercial cases at all levels are made available to the general public; 0.5 if only judgments rendered at the appeal and supreme court level are made available to the general public; 0 in all other instances.
- Whether voluntary mediation, conciliation or both are a recognized way of resolving commercial disputes. A score of 0.5 is assigned if yes; 0 if no.

The index ranges from 0 to 4, with higher values indicating a more automated, efficient and transparent court system. In Korea, for example, the initial summons can be filed online (a score of 1), it can be served on the defendant electronically (a score of 1), and court fees can be paid electronically as well (a score of 1). In addition, judgments in commercial cases at all levels are made publicly available through the internet (a score of 1). Adding these numbers gives Korea a score of 4 on the court automation index.

**Alternative dispute resolution index**

The alternative dispute resolution index has six components:

- Whether the initial complaint can be submitted to arbitration. A score of 0.5 is assigned if yes; 0 if no.
- Whether valid arbitration clauses or agreements are enforced by local courts in more than 50% of cases. A score of 0.5 is assigned if yes; 0 if no.
- Whether voluntary mediation, conciliation or both are recognized ways of resolving commercial disputes. A score of 0.5 is assigned if yes; 0 if no.
- Whether judgments rendered in commercial disputes can be submitted to arbitration. A score of 0.5 is assigned if yes; 0 if no.
- Whether bankruptcies or agreements are enforced by local courts in more than 50% of cases. A score of 0.5 is assigned if yes; 0 if no.
- Whether voluntary mediation, conciliation or both are a recognized way of resolving commercial disputes. A score of 0.5 is assigned if yes; 0 if no.

The index ranges from 0 to 3, with higher values associated with greater availability of alternative dispute resolution mechanisms. In Israel, for example, arbitration is regulated through a dedicated statute (a score of 0.5), all relevant commercial disputes can be submitted to arbitration (a score of 0.5), and valid arbitration clauses are usually enforced by the courts (a score of 0.5). Voluntary mediation is a recognized way of resolving commercial disputes (a score of 0.5), it is regulated through a dedicated statute (a score of 0.5), and part of the filing fees is reimbursed if the process is successful (a score of 0.5). Adding these numbers gives Israel a score of 3 on the alternative dispute resolution index.

**Quality of judicial processes index**

The quality of judicial processes index is the sum of the scores on the court structure and proceedings, case management, court automation and alternative dispute resolution indices. The index ranges from 0 to 18, with higher values...
indicating better and more efficient judicial processes.

**REFORMS**

The enforcing contracts indicator set tracks changes related to the efficiency and quality of commercial dispute resolution systems every year. Depending on the impact on the data, certain changes are classified as reforms and listed in the summaries of Doing Business reforms in 2015/2016 section of the report in order to acknowledge the implementation of significant changes. Reforms are divided into two types: those that make it easier to do business and those changes that make it more difficult to do business. The enforcing contracts indicator set uses three criteria to recognize a reform.

First, all changes in laws and regulations that have any impact on the economy’s score on the quality of judicial processes index are classified as reforms. Examples of reforms impacting the quality of judicial processes index include measures to introduce electronic filing of the initial complaint, the creation of a commercial court or division, or the introduction of dedicated systems to resolve small claims. Changes affecting the quality of judicial processes index can be different in magnitude and scope and still be considered a reform. For example, implementing a new electronic case management system for the use of judges and lawyers represents a reform with a 2-point increase in the index, while introducing incentives for the parties to use mediation represents a reform with a 0.5-point increase in the index.

Second, changes that have an impact on the time and cost to resolve a dispute may also be classified as reforms depending on the magnitude of the changes. According to the enforcing contracts methodology, any updates in legislation leading to a change of 2 or more percentage points on the relative distance to frontier gap (for more details, see the chapter on the distance to frontier and ease of doing business ranking) of the time and cost indicators is classified as a reform. Changes with lower impact are not classified as reforms but they are still reflected on the most updated indicators.

Third, occasionally the enforcing contracts indicator set will acknowledge legislative changes with no current impact on the data as reforms. This option is typically reserved to legislative changes of exceptional magnitude such as sizeable revisions of the applicable civil procedure laws.

The data details on enforcing contracts can be found for each economy at http://www.doingbusiness.org. This methodology was initially developed by Djankov and others (2003) and is adopted here with several changes. The quality of judicial processes index was introduced in Doing Business 2016. The good practices tested in this index were developed on the basis of internationally recognized good practices promoting judicial efficiency.

**RESOLVING INSOLVENCY**

Doing Business studies the time, cost and outcome of insolvency proceedings involving domestic entities as well as the strength of the legal framework applicable to judicial liquidation and reorganization proceedings. The data for the resolving insolvency indicators are derived from questionnaire responses by local insolvency practitioners and verified through a study of laws and regulations as well as public information on insolvency systems. The ranking of economies on the ease of resolving insolvency is determined by sorting their distance to frontier scores for resolving insolvency. These scores are the simple average of the distance to frontier scores for the recovery rate and the strength of insolvency framework index (figure 12.20).

**RECOVERY OF DEBT IN INSOLVENCY**

The recovery rate is calculated based on the time, cost and outcome of insolvency proceedings in each economy. To make the data on the time, cost and outcome of insolvency proceedings comparable across economies, several assumptions about the business and the case are used.

**Assumptions about the business**

The business:

- Is a limited liability company.
- Operates in the economy’s largest business city. For 11 economies the data are also collected for the second largest business city (table 12A.1).
- Is 100% domestically owned, with the founder, who is also chairman of the supervisory board, owning 51% (no other shareholder holds more than 5% of shares).
- Has downtown real estate, where it runs a hotel, as its major asset.
- Has a professional general manager.
- Has 201 employees and 50 suppliers, each of which is owed money for the last delivery.
- Has a 10-year loan agreement with a domestic bank secured by a mortgage over the hotel’s real estate property. A universal business charge (an enterprise charge) is also assumed in economies where such collateral is recognized. If the laws of the economy do not specifically provide for an enterprise charge but contracts commonly use some other provision to that effect, this provision is specified in the loan agreement.
Has observed the payment schedule and all other conditions of the loan up to now.
Has a market value, operating as a going concern, of 100 times income per capita or $200,000, whichever is greater. The market value of the company’s assets, if sold piecemeal, is 70% of the market value of the business.

Assumptions about the case
The business is experiencing liquidity problems. The company’s loss in 2015 reduced its net worth to a negative figure. It is January 1, 2016. There is no cash to pay the bank interest or principal in full, due the next day, January 2. The business will therefore default on its loan. Management believes that losses will be incurred in 2016 and 2017 as well. But it expects 2016 cash flow to cover all operating expenses, including supplier payments, salaries, maintenance costs and taxes, though not principal or interest payments to the bank.

The amount outstanding under the loan agreement is exactly equal to the market value of the hotel business and represents 74% of the company’s total debt. The other 26% of its debt is held by unsecured creditors (suppliers, employees, tax authorities).

The company has too many creditors to negotiate an informal out-of-court workout. The following options are available: a judicial procedure aimed at the rehabilitation or reorganization of the company to permit its continued operation; a judicial procedure aimed at the liquidation or winding-up of the company; or a judicial debt enforcement procedure (foreclosure or receivership) against the company.

Assumptions about the parties
The bank wants to recover as much as possible of its loan, as quickly and cheaply as possible. The unsecured creditors will do everything permitted under the applicable laws to avoid a piecemeal sale of the assets. The majority shareholder wants to keep the company operating and under his control. Management wants to keep the company operating and preserve its employees’ jobs. All the parties are local entities or citizens; no foreign parties are involved.

Time
Time for creditors to recover their credit is recorded in calendar years (table 12.18).

Cost
The cost of the proceedings is recorded as a percentage of the value of the debtor’s estate. The cost is calculated on the basis of questionnaire responses and includes court fees and government levies; fees of insolvency administrators, auctioneers, assessors and lawyers; and all other fees and costs.

Outcome
Recovery by creditors depends on whether the hotel business emerges from the proceedings as a going concern or the company’s assets are sold piecemeal. If the business continues operating, 100% of the hotel value is preserved. If the assets are sold piecemeal, the maximum amount that can be recovered is 70% of the value of the hotel.

Recovery rate
The recovery rate is recorded as cents on the dollar recovered by secured creditors through judicial reorganization, liquidation or debt enforcement (foreclosure or receivership) proceedings (figure 12.21).

The calculation takes into account the outcome: whether the business emerges from the proceedings as a going concern or the assets are sold piecemeal. Then the costs of the proceedings are deducted (1 cent for each percentage point of the value of the debtor’s estate). Finally, the value lost as a result of the time the money remains tied up in insolvency proceedings is taken into account, including the loss of value due to depreciation.

The table below summarizes the indicators on debt recovery in insolvency proceedings.

TABLE 12.18 What do the indicators on debt recovery in insolvency proceedings measure?

| Time required to recover debt (years) | Measured in calendar years |
| Appeals and requests for extension are included | |
| Cost required to recover debt (% of debtor’s estate) | Measured as percentage of estate value |
| Court fees | |
| Fees of insolvency administrators | |
| Lawyers’ fees | |
| Assessors’ and auctioneers’ fees | |
| Other related fees | |

| Outcome | Whether the business continues operating as a going concern or whether its assets are sold piecemeal |
| Recovery rate for secured creditors (cents on the dollar) | Measures the cents on the dollar recovered by secured creditors |
| Present value of debt recovered | |
| Official costs of the insolvency proceedings are deducted | |
| Depreciation of furniture is taken into account | |
| Outcome for the business (survival or not) affects the maximum value that can be recovered |

FIGURE 12.21 Recovery rate is a function of the time, cost and outcome of insolvency proceedings against a local company
of the hotel furniture. Consistent with international accounting practice, the annual depreciation rate for furniture is taken to be 20%. The furniture is assumed to account for a quarter of the total value of assets. The recovery rate is the present value of the remaining proceeds, based on end-2015 lending rates from the International Monetary Fund’s International Financial Statistics, supplemented with data from central banks and the Economist Intelligence Unit.

If an economy had zero completed cases a year over the past five years involving a judicial reorganization, judicial liquidation or debt enforcement procedure (foreclosure or receivership), the economy receives a “no practice” mark on the time, cost and outcome indicators. This means that creditors are unlikely to recover their money through a formal legal process. The recovery rate for “no practice” economies is zero. In addition, a “no practice” economy receives a score of 0 on the strength of insolvency framework index even if its legal framework includes provisions related to insolvency proceedings (liquidation or reorganization).

**STRENGTH OF INSOLVENCY FRAMEWORK**

The strength of insolvency framework index is based on four other indices: commencement of proceedings index, management of debtor’s assets index, reorganization proceedings index and creditor participation index (figure 12.22; table 12.19).

### Commencement of proceedings index

The commencement of proceedings index has three components:

- Whether debtors can initiate both liquidation and reorganization proceedings. A score of 1 is assigned if debtors can initiate both types of proceedings; 0.5 if they can initiate only one of these types (either liquidation or reorganization); 0 if they cannot initiate insolvency proceedings.

- What standard is used for commencement of insolvency proceedings. A score of 1 is assigned if a liquidity test (the debtor is generally unable to pay its debts as they mature) is used; 0.5 if the balance sheet test (the liabilities of the debtor exceed its assets) is used; 1 if both the liquidity and balance sheet tests are available but only one is required to initiate insolvency proceedings; 0.5 if both tests are required; 0 if a different test is used.

- Whether the debtor (or an insolvency representative on its behalf) can continue performing contracts essential to the debtor’s survival. A score of 1 is assigned if yes; 0 if continuation of contracts is not possible or if the law contains no provisions on this subject.

The index ranges from 0 to 3, with higher values indicating greater access to insolvency proceedings. In Bulgaria, for example, debtors can initiate both liquidation and reorganization proceedings (a score of 1), but creditors can initiate only liquidation proceedings (a score of 0.5). Either the liquidity test or the balance sheet test can be used to commence insolvency proceedings (a score of 1). Adding these numbers gives Bulgaria a score of 2.5 on the commencement of proceedings index.

### Management of debtor’s assets index

The management of debtor’s assets index has six components:

- Whether the debtor (or an insolvency representative on its behalf) can continue performing contracts essential to the debtor’s survival. A score of 1 is assigned if yes; 0 if continuation of contracts is not possible or if the law contains no provisions on this subject.

- Whether transactions entered into before commencement of insolvency proceedings that give preference to one or several creditors can be avoided after proceedings are initiated. A score of 1 is assigned if yes; 0 if avoidance of such transactions is not possible or if the law contains no provisions on this subject.

The index ranges from 0 to 6, with higher values indicating greater protection of creditors’ rights during insolvency. In Bulgaria, for example, creditors receive only 2 points on this index because the law makes it impossible to avoid preferential transactions entered into before commencement of insolvency proceedings.

- Whether the debtor (or an insolvency representative on its behalf) can reject overly burdensome contracts. A score of 1 is assigned if yes; 0 if rejection of contracts is not possible or if the law contains no provisions on this subject.

- Whether debtors and creditors can agree to reject the contract (or modify it) with the court’s approval. A score of 1 is assigned if yes; 0 if rejection of contracts is not possible or if the law contains no provisions on this subject.

The index ranges from 0 to 3, with higher values indicating greater protection of creditors’ rights during insolvency. In Bulgaria, for example, creditors receive only 2 points on this index because the law makes it impossible to avoid preferential transactions entered into before commencement of insolvency proceedings.

- Whether a credit agreement can be modified by the court after commencement of insolvency proceedings. A score of 1 is assigned if yes; 0 if modification of credit agreements is not possible or if the law contains no provisions on this subject.

- Whether the court has the power to punish an officer of a debtor that engaged in preferential transactions. A score of 1 is assigned if yes; 0 if modification of credit agreements is not possible or if the law contains no provisions on this subject.

- Whether debtors and creditors can agree to reject the contract (or modify it) with the court’s approval. A score of 1 is assigned if yes; 0 if rejection of contracts is not possible or if the law contains no provisions on this subject.

The index ranges from 0 to 3, with higher values indicating greater protection of creditors’ rights during insolvency. In Bulgaria, for example, creditors receive only 2 points on this index because the law makes it impossible to avoid preferential transactions entered into before commencement of insolvency proceedings.
of insolvency proceedings can be avoided after proceedings are initiated. A score of 1 is assigned if yes; 0 if avoidance of such transactions is not possible or if the law contains no provisions on this subject.

- Whether the insolvency framework includes specific provisions that allow the debtor (or an insolvency representative on its behalf), after commencement of insolvency proceedings, to obtain financing necessary to function during the proceedings. A score of 1 is assigned if yes; 0 if obtaining post-commencement finance is not possible or if the law contains no provisions on this subject.

- Whether post-commencement finance receives priority over ordinary unsecured creditors during distribution of assets. A score of 1 is assigned if yes; 0.5 if post-commencement finance is granted superpriority over all creditors, secured and unsecured; 0 if no priority is granted to post-commencement finance or if the law contains no provisions on this subject.

The index ranges from 0 to 6, with higher values indicating more advantageous treatment of the debtor’s assets from the perspective of the company’s stakeholders. In Mozambique, for example, debtors can continue essential contracts (a score of 1) and reject burdensome ones (a score of 1) during insolvency proceedings. The insolvency framework allows avoidance of preferential transactions (a score of 1) and undervalued ones (a score of 1). But the insolvency framework contains no provisions allowing post-commencement finance (a score of 0) or granting priority to such finance (a score of 0). Adding these numbers gives Mozambique a score of 4 on the management of debtor’s assets index.

**Reorganization proceedings index**

The reorganization proceedings index has three components:

- Whether the reorganization plan is voted on only by the creditors whose rights are modified or affected by the plan. A score of 1 is assigned if yes; 0.5 if all creditors vote on the plan, regardless of its impact on their interests; 0 if creditors do not vote on the plan or if reorganization is not available.

- Whether creditors entitled to vote on the plan are divided into classes, each class votes separately and the creditors within each class are treated equally. A score of 1 is assigned if the voting procedure has these three features; 0 if the voting procedure does not have these three features or if reorganization is not available.

- Whether the insolvency framework requires that dissenting creditors receive as much under the reorganization plan as they would have received in liquidation. A score of 1 is assigned if yes; 0 if no such provisions exist or if reorganization is not available.

The index ranges from 0 to 3, with higher values indicating greater compliance with internationally accepted practices. Nicaragua, for example, has no judicial reorganization proceedings and therefore receives a score of 0 on the reorganization proceedings index. In Estonia, another example, only creditors whose rights are affected by the reorganization plan are allowed to vote (a score of 1). The reorganization plan divides creditors into classes, each class votes separately and creditors within the same class are treated equally (a score of 1). But there are no provisions requiring that the return to dissenting creditors be equal to what they would have received in liquidation (a score of 0). Adding these numbers gives Estonia a score of 2 on the reorganization proceedings index.

**Creditor participation index**

The creditor participation index has four components:

- Whether creditors participate in the selection of an insolvency representative. A score of 1 is assigned if yes; 0 if no.

- Whether creditors are required to approve the sale of substantial assets of the debtor in the course of insolvency proceedings. A score of 1 is assigned if yes; 0 if no.

- Whether an individual creditor has the right to access financial information about the debtor during insolvency proceedings. A score of 1 is assigned if yes; 0 if no.

- Whether an individual creditor can object to a decision of the court or of the insolvency representative to approve or reject claims against the debtor brought by the creditor itself and by other creditors. A score of 1 is assigned if yes; 0 if no.

The index ranges from 0 to 4, with higher values indicating greater participation of creditors. In Iceland, for example, the court appoints the insolvency representative, without creditors’ approval (a score of 0). The insolvency representative decides unilaterally on the sale of the debtor’s assets (a score of 0). Any creditor can inspect the records kept by the insolvency representative (a score of 1). And any creditor is allowed to challenge a decision of the insolvency representative to approve all claims if this decision affects the creditor’s rights (a score of 1). Adding these numbers gives Iceland a score of 2 on the creditor participation index.

**Strength of insolvency framework index**

The strength of insolvency framework index is the sum of the scores on the commencement of proceedings index, management of debtor’s assets index, reorganization proceedings index and creditor participation index. The index ranges from 0 to 16, with higher values indicating insolvency legislation that is better designed for rehabilitating viable firms and liquidating nonviable ones.

**REFORMS**

The resolving insolvency indicator set tracks changes related to the efficiency and quality of insolvency framework every year. Depending on the impact on the data, certain changes are classified as reforms.
and listed in the summaries of Doing Business reforms in 2015/2016 section of the report in order to acknowledge the implementation of significant changes. Reforms are divided into two types: those that make it easier to do business and those changes that make it more difficult to do business. The resolving insolvency indicator set uses three criteria to recognize a reform.

First, all changes to laws and regulations that have any impact on the economy’s score on the strength of insolvency framework index are classified as reforms. Examples of reforms impacting the strength of insolvency framework index include changes in the commencement standard for insolvency proceedings, the introduction of reorganization procedures for the first time and measures to regulate post-commencement credit and its priority. Changes affecting the strength of insolvency framework index can be different in magnitude and scope and still be considered a reform. For example implementing a post-commencement credit provision and designating it with certain priorities represents a reform with a potential 2 point increase in the index, while changing the commencement standard from the balance sheet test to the liquidity test represents a reform with a 0.5 points increase in the index.

Second, changes that have an impact on the time, cost or outcome of insolvency proceedings may also be classified as reforms depending on the magnitude of the changes. According to the resolving insolvency methodology any update in legislation leading to a change of 2 or more percentage points on the relative distance to frontier gap (for more details, see the chapter on the distance to frontier and ease of doing business ranking) of the time, cost and outcome indicators is classified as a reform. Changes with lower impact are not classified as reforms but their impact is still reflected on the most updated indicators.

Third, occasionally the resolving insolvency indicator set will acknowledge legislative changes with no current impact on the data as reforms. This option is typically reserved to legislative changes of exceptional magnitude such as sizeable revisions of corporate insolvency laws.

This methodology was developed by Djankov, Hart and others (2008) and is adopted here with several changes. The strength of insolvency framework index was introduced in Doing Business 2015. The good practices tested in this index were developed on the basis of the World Bank’s Principles for Effective Insolvency and Creditor/Debtor Regimes (World Bank 2011) and the United Nations Commission on International Trade Law’s Legislative Guide on Insolvency Law (UNCITRAL 2004a).

LABOR MARKET REGULATION

Doing Business studies the flexibility of regulation of employment, specifically as it relates to the areas of hiring, working hours and redundancy. Doing Business also measures several aspects of job quality such as the availability of maternity leave, paid sick leave and the equal treatment of men and women at the workplace (figure 12.23).

Assumptions about the worker
The worker:
- Is a cashier in a supermarket or grocery store, age 19, with one year of work experience.
- Is a full-time employee.
- Is not a member of the labor union, unless membership is mandatory

Assumptions about the business
The business:
- Is a limited liability company (or the equivalent in the economy).

FIGURE 12.23 What do the labor market regulation indicators cover?
Operates a supermarket or grocery store in the economy’s largest business city. For 11 economies the data are also collected for the second largest business city (table 12A.1).

Has 60 employees.

Is subject to collective bargaining agreements if such agreements cover more than 50% of the food retail sector and apply even to firms that are not party to them.

Abides by every law and regulation but does not grant workers more benefits than those mandated by law, regulation or (if applicable) collective bargaining agreements.

**Employment**

Data on employment cover three areas: hiring, working hours and redundancy (table 12.20).

Data on hiring cover four questions: (i) whether fixed-term contracts are prohibited for permanent tasks; (ii) the maximum cumulative duration of fixed-term contracts; (iii) the minimum wage for a cashier, age 19, with one year of work experience and (iv) the ratio of the minimum wage to the average value added per worker.¹⁶

Data on working hours cover nine questions: (i) the maximum number of working days per week; (ii) the premium for night work (as a percentage of hourly pay); (iii) the premium for work on a weekly rest day (as a percentage of hourly pay); (iv) the premium for overtime work (as a percentage of hourly pay); (v) whether there are restrictions on night work; (vi) whether nonpregnant and nonnursing women can work the same night hours as men; (vii) whether there are restrictions on weekly holiday work; (viii) whether there are restrictions on overtime work; and (ix) the average paid annual leave for workers with 1 year of tenure, 5 years of tenure and 10 years of tenure.

Data on redundancy cover nine questions: (i) the length of the maximum probationary period (in months) for permanent employees; (ii) whether redundancy is allowed as a basis for terminating workers; (iii) whether the employer needs to notify a third party (such as a government agency) to terminate one redundant worker; (iv) whether the employer needs to notify a third party to terminate a group of nine redundant workers; (v) whether the employer needs approval from a third party to terminate one redundant worker; (vi) whether the employer needs approval from a third party to terminate a group of nine redundant workers; (vii) whether the law requires the employer to reassign or retrain a worker before making the worker redundant; (viii) whether priority rules apply for redundancies; and (ix) whether priority rules apply for reemployment.

**Redundancy cost**

Redundancy cost measures the cost of advance notice requirements and severance payments due when terminating a redundant worker, expressed in weeks of salary. The average value of notice requirements and severance payments applicable to a worker with 1 year of tenure, a worker with 5 years and a worker with 10 years is considered. One month is recorded as 4 and 1/3 weeks.

<table>
<thead>
<tr>
<th>TABLE 12.20</th>
<th>What do the labor market regulation indicators measure?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Employment</strong></td>
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<tr>
<td><strong>Hiring</strong></td>
<td>Whether fixed-term contracts are prohibited for permanent tasks</td>
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<td></td>
<td>Maximum duration of fixed-term contracts (in months), including renewals</td>
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<tr>
<td></td>
<td>Minimum wage for a cashier, age 19, with one year of work experience (US$/month)</td>
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<td></td>
<td>Ratio of minimum wage to value added per worker</td>
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<tr>
<td><strong>Working hours</strong></td>
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<tr>
<td></td>
<td>Maximum number of working days per week</td>
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<td></td>
<td>Premium for night work, work on weekly rest day and overtime work (% of hourly pay)</td>
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<td></td>
<td>Whether there are restrictions on night work, weekly holiday work and overtime work</td>
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<td></td>
<td>Whether nonpregnant and nonnursing women can work the same night hours as men</td>
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<tr>
<td></td>
<td>Paid annual vacation days for workers with 1 year of tenure, 5 years of tenure and 10 years of tenure.</td>
</tr>
<tr>
<td><strong>Redundancy</strong></td>
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<tr>
<td></td>
<td>Length of maximum probationary period (in months) for permanent employees</td>
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<tr>
<td></td>
<td>Whether redundancy is allowed as grounds for termination</td>
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<tr>
<td></td>
<td>Whether third-party notification is required for termination of a redundant worker or group of workers</td>
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<tr>
<td></td>
<td>Whether third-party approval is required for termination of a redundant worker or group of workers</td>
</tr>
<tr>
<td></td>
<td>Whether employer is obligated to reassign or retrain workers prior to making them redundant and to follow priority rules for redundancy and reemployment</td>
</tr>
<tr>
<td><strong>Redundancy cost (weeks of salary)</strong></td>
<td>Notice requirements and severance payments due when terminating a redundant worker, expressed in weeks of salary</td>
</tr>
<tr>
<td><strong>Job quality</strong></td>
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<tr>
<td></td>
<td>Whether the law mandates equal remuneration for work of equal value</td>
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<td></td>
<td>Whether the law mandates nondiscrimination based on gender in hiring</td>
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<td></td>
<td>Whether the law mandates paid or unpaid maternity leave</td>
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<td></td>
<td>Minimum length of paid maternity leave (calendar days)</td>
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<td></td>
<td>Whether employees on maternity leave receive 100% of wages</td>
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<tr>
<td></td>
<td>Availability of five fully paid days of sick leave a year</td>
</tr>
<tr>
<td></td>
<td>Whether unemployment protection is available after one year of employment</td>
</tr>
<tr>
<td></td>
<td>Minimum duration of contribution period (in months) required for unemployment protection</td>
</tr>
</tbody>
</table>
Job quality

Doing Business introduced new data on job quality in 2015. Doing Business 2017 covers eight questions on job quality (i) whether the law mandates equal remuneration for work of equal value; (ii) whether the law mandates nondiscrimination based on gender in hiring; (iii) whether the law mandates paid or unpaid maternity leave; (iv) the minimum length of paid maternity leave (in calendar days); (v) whether employees on maternity leave receive 100% of wages; (vi) the availability of five fully paid days of sick leave a year; (vii) whether a worker is eligible for an unemployment protection scheme after one year of service; and (viii) the minimum duration of the contribution period (in months) required for unemployment protection.

REFORMS

The labor market regulation indicator set tracks changes in labor rules every year. Depending on the impact on the data, certain changes are classified as reforms and listed in the summaries of Doing Business reforms in 2015/2016 section of the report in order to acknowledge the implementation of significant changes. Examples include a change in the maximum duration of fixed-term contracts, regulation of weekly holiday work, redundancy rules, notice requirements and severance payments for redundant workers, introduction of unemployment insurance and laws that mandate gender nondiscrimination in hiring and equal remuneration for work of equal value in line with ILO standards. The introduction of a minimum wage in the private sector is recognized as a major reform and acknowledged in the reform summary. Changes in minimum wages are reflected in the Doing Business data but not acknowledged in the reform summary. Similarly, the introduction of maternity leave would be acknowledged in the reform summary but not an increase in the duration of maternity leave. Occasionally the labor market regulation indicator set will acknowledge legislative changes in areas not directly measured by the indicators. This option is reserved for legislative changes of exceptional magnitude, such as the introduction of a new labor code.

The data details on labor market regulation can be found for each economy at http://www.doingbusiness.org. The Doing Business website also provides historical data sets. The methodology was developed by Botero and others (2004). Doing Business 2017 does not present rankings of economies on the labor market regulation indicators.

NOTES

1. The data for paying taxes refer to January-December 2015.
2. These are Bangladesh, Brazil, China, India, Indonesia, Japan, Mexico, Nigeria, Pakistan, the Russian Federation and the United States.
3. This correction rate reflects changes that exceed 5% up or down.
4. According to a study by Chakravorty, Pelli and Marchand (2014) based on evidence from India between 1994 and 2005, a higher-quality electricity supply, with no more than two outages a week (or no more than about 100 a year), leads to higher nonagricultural incomes.
5. This matter is usually regulated by stock exchange or securities laws. Points are awarded only to economies with more than 10 listed firms in their most important stock exchange.
6. When evaluating the regime of liability for company directors for a prejudicial related-party transaction, Doing Business assumes that the transaction was duly disclosed and approved. Doing Business does not measure director liability in the event of fraud.
7. This component is revised in Doing Business 2017.
8. This component is revised in Doing Business 2017.
9. This component is revised in Doing Business 2017.
10. This component is revised in Doing Business 2017.
11. PwC refers to the network of member firms of PricewaterhouseCoopers International Limited (PwCIL) or, as the context requires, individual member firms of the PwC network.
12. The nonlinear distance to frontier score for the total tax rate to the power of 0.8.
13. The economies for which a multiple of three times income per capita has been used are Honduras, Mozambique, West Bank and Gaza, and Zimbabwe. Those for which a multiple of two times income per capita has been used are Belize, Benin, Bosnia and Herzegovina, Burkina Faso, the Central African Republic, Chad, Fiji, Guatemala, Haiti, Kenya, Lesotho, Madagascar, the Federated States of Micronesia, Morocco, Nepal, Nicaragua, Niger, Nigeria, the Philippines, the Solomon Islands, South Africa, South Sudan, Tanzania, Togo, Vanuatu and Zambia.
14. To identify the trading partners and export product for each economy, Doing Business collected data on trade flows for the most recent four-year period from international databases such as the United Nations Commodity Trade Statistics Database (UN Comtrade). For economies for which trade flow data were not available, data from ancillary government sources (various ministries and departments) and World Bank Group country offices were used to identify the export product and natural trading partners.
15. The case study assumption that the worker is 19 years old with one year of work experience is considered only for the calculation of the minimum wage. For all other questions where the tenure of the worker is relevant, Doing Business collects data for workers with 1, 5 and 10 years of tenure.
16. The average value added per worker is the ratio of an economy’s GNI per capita to the working-age population as a percentage of the total population.
17. If no maternity leave is mandated by law, parental leave is measured if applicable.
18. The minimum number of days that legally have to be paid by the government, the employer or both, if no maternity leave is mandated by law, parental leave is measured if applicable.
19. If no maternity leave is mandated by law, parental leave is measured if applicable.
<table>
<thead>
<tr>
<th>Economy</th>
<th>City or cities</th>
<th>Economy</th>
<th>City or cities</th>
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<th>City or cities</th>
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<td>Ljubljana</td>
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<td>Lusaka</td>
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</tbody>
</table>

TABLE 12A.1 Cities covered in each economy by the Doing Business report
The Doing Business report presents results for two aggregate measures: the distance to frontier score and the ease of doing business ranking, which is based on the distance to frontier score. The ease of doing business ranking compares economies with one another; the distance to frontier score benchmarks economies with respect to regulatory best practice, showing the absolute distance to the best performance on each Doing Business indicator. When compared across years, the distance to frontier score shows how much the regulatory environment for local entrepreneurs in an economy has changed over time in absolute terms, while the ease of doing business ranking can show only how much the regulatory environment has changed relative to that in other economies.

DISTANCE TO FRONTIER

The distance to frontier score captures the gap between an economy’s performance and a measure of best practice across the entire sample of 41 indicators for 10 Doing Business topics (the labor market regulation indicators are excluded). For starting a business, for example, New Zealand has the smallest number of procedures required (1) and the shortest time to fulfill them (0.5 days). Slovenia has the lowest cost (0.0), and Australia, Colombia and 111 other economies have no paid-in minimum capital requirement (table 14.1).

Calculation of the distance to frontier score

Calculating the distance to frontier score for each economy involves two main steps. In the first step individual component indicators are normalized to a common unit where each of the 41 component indicators \( y \) (except for the total tax rate) is rescaled using the linear transformation \( \frac{\text{worst} - y}{\text{worst} - \text{frontier}} \).

In this formulation the frontier represents the best performance on the indicator across all economies since 2005 or the third year in which data for the indicator were collected. Both the best performance and the worst performance are established every five years based on the Doing Business data for the year in which they are established, and remain at that level for the five years regardless of any changes in data in interim years. Thus an economy may set the frontier for an indicator even though it is no longer at the frontier in a subsequent year.

For scores such as those on the strength of legal rights index or the quality of land administration index, the frontier is set at the highest possible value. For the total tax rate, consistent with the use of a threshold in calculating the rankings on this indicator, the frontier is defined as the total tax rate at the 15th percentile of the overall distribution for all years included in the analysis up to and including Doing Business 2015. For the time to pay taxes the frontier is defined as the lowest time recorded among all economies that levy the three major taxes: profit tax, labor
<table>
<thead>
<tr>
<th>Topic and indicator</th>
<th>Who set the frontier</th>
<th>Frontier</th>
<th>Worst performance</th>
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<td>Procedures (number)</td>
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<td>18&lt;sup&gt;a&lt;/sup&gt;</td>
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<tr>
<td>Time (days)</td>
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<td>100&lt;sup&gt;b&lt;/sup&gt;</td>
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<td>Cost (% of income per capita)</td>
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<td>Minimum capital (% of income per capita)</td>
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<td>0.0</td>
<td>400.0&lt;sup&gt;o&lt;/sup&gt;</td>
</tr>
<tr>
<td><strong>Dealing with construction permits</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Procedures (number)</td>
<td>No economy was at the frontier as of June 1, 2016.</td>
<td>5</td>
<td>30&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>Time (days)</td>
<td>Singapore</td>
<td>26</td>
<td>373&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Cost (% of warehouse value)</td>
<td>No economy was at the frontier as of June 1, 2016.</td>
<td>0.0</td>
<td>20.0&lt;sup&gt;o&lt;/sup&gt;</td>
</tr>
<tr>
<td>Building quality control index (0–15)</td>
<td>Luxembourg; New Zealand</td>
<td>15</td>
<td>0&lt;sup&gt;d&lt;/sup&gt;</td>
</tr>
<tr>
<td><strong>Getting electricity</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Procedures (number)</td>
<td>Germany; Republic of Korea&lt;sup&gt;a&lt;/sup&gt;</td>
<td>3</td>
<td>9&lt;sup&gt;c&lt;/sup&gt;</td>
</tr>
<tr>
<td>Time (days)</td>
<td>Republic of Korea; St. Kitts and Nevis</td>
<td>18</td>
<td>248&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Cost (% of income per capita)</td>
<td>Japan</td>
<td>0.0</td>
<td>8,100.0&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Reliability of supply and transparency of tariffs index (0–8)</td>
<td>Belgium; Ireland; Malaysia&lt;sup&gt;f&lt;/sup&gt;</td>
<td>8</td>
<td>0&lt;sup&gt;d&lt;/sup&gt;</td>
</tr>
<tr>
<td><strong>Registering property</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Procedures (number)</td>
<td>Georgia; Norway; Portugal; Sweden</td>
<td>1</td>
<td>13&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>Time (days)</td>
<td>Georgia; New Zealand; Portugal</td>
<td>1</td>
<td>210&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Cost (% of property value)</td>
<td>Saudi Arabia</td>
<td>0.0</td>
<td>15.0&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Quality of land administration index (0–30)</td>
<td>No economy has attained the frontier yet.</td>
<td>30</td>
<td>0&lt;sup&gt;d&lt;/sup&gt;</td>
</tr>
<tr>
<td><strong>Getting credit</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strength of legal rights index (0–12)</td>
<td>Colombia; Montenegro; New Zealand</td>
<td>12</td>
<td>0&lt;sup&gt;d&lt;/sup&gt;</td>
</tr>
<tr>
<td>Depth of credit information index (0–8)</td>
<td>Ecuador; United Kingdom&lt;sup&gt;g&lt;/sup&gt;</td>
<td>8</td>
<td>0&lt;sup&gt;d&lt;/sup&gt;</td>
</tr>
<tr>
<td><strong>Protecting minority investors</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extent of disclosure index (0–10)</td>
<td>China; Malaysia&lt;sup&gt;c&lt;/sup&gt;</td>
<td>10</td>
<td>0&lt;sup&gt;d&lt;/sup&gt;</td>
</tr>
<tr>
<td>Extent of director liability index (0–10)</td>
<td>Cambodia</td>
<td>10</td>
<td>0&lt;sup&gt;d&lt;/sup&gt;</td>
</tr>
<tr>
<td>Ease of shareholder suits index (0–10)</td>
<td>No economy has attained the frontier yet.</td>
<td>10</td>
<td>0&lt;sup&gt;d&lt;/sup&gt;</td>
</tr>
<tr>
<td>Extent of shareholder rights index (0–10)</td>
<td>Chile; India&lt;sup&gt;c&lt;/sup&gt;</td>
<td>10</td>
<td>0&lt;sup&gt;d&lt;/sup&gt;</td>
</tr>
<tr>
<td>Extent of ownership and control index (0–10)</td>
<td>No economy has attained the frontier yet.</td>
<td>10</td>
<td>0&lt;sup&gt;d&lt;/sup&gt;</td>
</tr>
<tr>
<td>Extent of corporate transparency index (0–10)</td>
<td>No economy has attained the frontier yet.</td>
<td>10</td>
<td>0&lt;sup&gt;d&lt;/sup&gt;</td>
</tr>
<tr>
<td><strong>Paying taxes</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Payments (number per year)</td>
<td>Hong Kong SAR, China; Saudi Arabia</td>
<td>3</td>
<td>63&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Time (hours per year)</td>
<td>Singapore</td>
<td>49</td>
<td>696&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Total tax rate (% of profit)</td>
<td>Singapore&lt;sup&gt;e&lt;/sup&gt;</td>
<td>26.1&lt;sup&gt;c&lt;/sup&gt;</td>
<td>84.0&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Postfiling index (0–100)</td>
<td>No economy has attained the frontier yet.</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>Time to comply with VAT refund (hours)</td>
<td>Croatia; Netherlands&lt;sup&gt;e&lt;/sup&gt;</td>
<td>0</td>
<td>50&lt;sup&gt;o&lt;/sup&gt;</td>
</tr>
<tr>
<td>Time to obtain VAT refund (weeks)</td>
<td>Austria</td>
<td>3.2</td>
<td>55&lt;sup&gt;o&lt;/sup&gt;</td>
</tr>
<tr>
<td>Time to comply with corporate income tax audit (hours)</td>
<td>Lithuania; Portugal&lt;sup&gt;e&lt;/sup&gt;</td>
<td>1.5</td>
<td>56&lt;sup&gt;o&lt;/sup&gt;</td>
</tr>
<tr>
<td>Time to complete a corporate income tax audit (weeks)</td>
<td>Sweden; United States&lt;sup&gt;e&lt;/sup&gt;</td>
<td>0</td>
<td>32&lt;sup&gt;o&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

(continued)
In the same formulation, to mitigate the effects of extreme outliers in the distributions of the rescaled data for most component indicators (very few economies need 700 days to complete the procedures to start a business, but many need 9 days), the worst performance is calculated after the removal of outliers. The definition of outliers is based on the distribution for each component indicator. To simplify the
process two rules were defined: the 95th percentile is used for the indicators with the most dispersed distributions (including minimum capital, number of payments to pay taxes, and the time and cost indicators), and the 99th percentile is used for the number of procedures. No outlier is removed for component indicators bound by definition or construction, including legal index scores (such as the depth of credit information index, extent of conflict of interest regulation index and strength of insolvency framework index) and the recovery rate (figure 14.1).

In the second step for calculating the distance to frontier score, the scores obtained for individual indicators for each economy are aggregated through simple averaging into one distance to frontier score, first for each topic and then across all 10 topics: starting a business, dealing with construction permits, getting electricity, registering property, getting credit, protecting minority investors, paying taxes, trading across borders, enforcing contracts and resolving insolvency. More complex aggregation methods—such as principal components and unobserved components—yield a ranking nearly identical to the simple average used by Doing Business. Thus Doing Business uses the simplest method: weighting all topics equally and, within each topic, giving equal weight to each of the topic components.

An economy’s distance to frontier score is indicated on a scale from 0 to 100, where 0 represents the worst performance and 100 the frontier. All distance to frontier calculations are based on a maximum of five decimals. However, indicator ranking calculations and the ease of doing business ranking calculations are based on two decimals.

The difference between an economy’s distance to frontier score in any previous year and its score in 2016 illustrates the extent to which the economy has closed the gap to the regulatory frontier over time. And in any given year the score measures how far an economy is from the best performance at that time.

**Treatment of the total tax rate**

The total tax rate component of the paying taxes indicator set enters the distance to frontier calculation in a different way than any other indicator. The distance to frontier score obtained for the total tax rate is transformed in a nonlinear fashion before it enters the distance to frontier score for paying taxes. As a result of the nonlinear transformation, an increase in the total tax rate has a smaller impact on the distance to frontier score for the total tax rate—and therefore on the distance to frontier score for paying taxes—for economies with a below-average total tax rate than it would have had before.

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**FIGURE 14.1** How are distance to frontier scores calculated for indicators? Two examples

A time-and-motion topic: dealing with construction permits

- Distance to frontier score for procedures
- Regulatory frontier
- Best performance (frontier): 5 procedures
- Worst performance (99th percentile): 30 procedures

A legal topic: protecting minority investors

- Distance to frontier score for extent of disclosure index
- Regulatory frontier
- Best performance (frontier): 10 points
- Worst performance: 0 points

Source: Doing Business database.
this approach was adopted in Doing Business 2015 (line B is smaller than line A in figure 14.2). And for economies with an extreme total tax rate (a rate that is very high relative to the average), an increase has a greater impact on both these distance to frontier scores than it would have had before (line D is bigger than line C in figure 14.2).

The nonlinear transformation is not based on any economic theory of an “optimal tax rate” that minimizes distortions or maximizes efficiency in an economy’s overall tax system. Instead, it is mainly empirical in nature. The nonlinear transformation along with the threshold reduces the bias in the indicator toward economies that do not need to levy significant taxes on companies like the Doing Business standardized case study company because they raise public revenue in other ways—for example, through taxes on foreign companies, through taxes on sectors other than manufacturing or from natural resources (all of which are outside the scope of the methodology). In addition, it acknowledges the need of economies to collect taxes from firms.

**Calculation of scores for economies with two cities covered**

For each of the 11 economies in which Doing Business collects data for the second largest business city as well as the largest one, the distance to frontier score is calculated as the population-weighted average of the distance to frontier scores for these two cities (table 14.2). This is done for the aggregate score, the scores for each topic and the scores for all the component indicators for each topic.

**Variability of economies’ scores across topics**

Each indicator set measures a different aspect of the business regulatory environment. The distance to frontier scores and associated rankings of an economy can vary, sometimes significantly, across indicator sets. The average correlation coefficient between the 10 indicator sets included in the aggregate distance to frontier score is 0.48, and the coefficients between 2 sets of indicators range from 0.32 (between getting credit and paying taxes) to 0.61 (between registering property and enforcing contracts). These correlations suggest that economies rarely score universally well or universally badly on the indicators (table 14.3).

Consider the example of Portugal. Its aggregate distance to frontier score is 77.40. Its score is 92.85 for starting a business and 100.00 for trading across borders. But its score is only 56.67 for protecting minority investors and 45.00 for getting credit.

Figure 2.1 in the chapter “About Doing Business” illustrates the degree of variability for each economy’s performance across the different areas of business regulation covered by Doing Business. The figure draws attention to economies

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**FIGURE 14.2** How the nonlinear transformation affects the distance to frontier score for the total tax rate

![Figure 14.2](image-url)

Source: Doing Business database.

Note: The nonlinear distance to frontier score for the total tax rate is equal to the distance to frontier score for the total tax rate to the power of 0.8.

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**TABLE 14.2** Weights used in calculating the distance to frontier scores for economies with two cities covered

<table>
<thead>
<tr>
<th>Economy</th>
<th>City</th>
<th>Weight (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>Dhaka</td>
<td>78</td>
</tr>
<tr>
<td></td>
<td>Chittagong</td>
<td>22</td>
</tr>
<tr>
<td>Brazil</td>
<td>Sao Paulo</td>
<td>61</td>
</tr>
<tr>
<td></td>
<td>Rio de Janeiro</td>
<td>39</td>
</tr>
<tr>
<td>China</td>
<td>Shanghai</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td>Beijing</td>
<td>45</td>
</tr>
<tr>
<td>India</td>
<td>Mumbai</td>
<td>47</td>
</tr>
<tr>
<td></td>
<td>Delhi</td>
<td>53</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Jakarta</td>
<td>78</td>
</tr>
<tr>
<td></td>
<td>Surabaya</td>
<td>22</td>
</tr>
<tr>
<td>Japan</td>
<td>Tokyo</td>
<td>65</td>
</tr>
<tr>
<td></td>
<td>Osaka</td>
<td>35</td>
</tr>
<tr>
<td>Mexico</td>
<td>Mexico City</td>
<td>83</td>
</tr>
<tr>
<td></td>
<td>Monterrey</td>
<td>17</td>
</tr>
<tr>
<td>Nigeria</td>
<td>Lagos</td>
<td>77</td>
</tr>
<tr>
<td></td>
<td>Kano</td>
<td>23</td>
</tr>
<tr>
<td>Pakistan</td>
<td>Karachi</td>
<td>65</td>
</tr>
<tr>
<td></td>
<td>Lahore</td>
<td>35</td>
</tr>
<tr>
<td>Russian Federation</td>
<td>Moscow</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td>St. Petersburg</td>
<td>30</td>
</tr>
<tr>
<td>United States</td>
<td>New York City</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>Los Angeles</td>
<td>40</td>
</tr>
</tbody>
</table>

with a particularly uneven performance by showing, for each economy, the distance between the average of its highest three distance to frontier scores and the average of its lowest three across the 10 topics included in this year’s aggregate distance to frontier score. While a relatively small distance between these two averages suggests a broadly consistent approach across the areas of business regulation measured by Doing Business, a relatively large distance suggests a more uneven approach, with greater room for improvements in some areas than in others.

Variation in performance across the indicator sets is not at all unusual. It reflects differences in the degree of priority that government authorities give to particular areas of business regulation measured by Doing Business, a relatively large distance suggests a more uneven approach, with greater room for improvements in some areas than in others.

**Economies improving the most across three or more Doing Business topics in 2015/16**

Doing Business 2017 uses a simple method to calculate which economies improved the ease of doing business the most. First, it selects the economies that in 2015/16 implemented regulatory reforms making it easier to do business in 3 or more of the 10 topics included in this year’s aggregate distance to frontier score. Twenty-nine economies meet this criterion: Algeria; Azerbaijan; Bahrain; Belarus; Brazil; Brunei Darussalam; Burkina Faso; Côte d’Ivoire; Georgia; India; Indonesia; Kazakhstan; Kenya; Madagascar; Mali; Mauritania; Morocco; Niger; Pakistan; Poland; Senegal; Serbia; Singapore; Thailand; Togo; Uganda; the United Arab Emirates; Uzbekistan and Vanuatu. Second, Doing Business sorts these economies on the increase in their distance to frontier score from the previous year using comparable data. Selecting the economies that implemented regulatory reforms in at least three topics and had the biggest improvements in their distance to frontier scores is intended to highlight economies with ongoing, broad-based reform programs. The improvement in the distance to frontier score is used to identify the top improvers because this allows a focus on the absolute improvement—in contrast with the relative improvement shown by a change in rankings—that economies have made in their regulatory environment for business.

### EASE OF DOING BUSINESS RANKING

The ease of doing business ranking ranges from 1 to 190. The ranking of economies is determined by sorting the aggregate distance to frontier scores, rounded to two decimals.

### NOTES

1. See Djankov, Manraj and others (2005). Principal components and unobserved components methods yield a ranking nearly identical to that from the simple average method because both these methods assign roughly equal weights to the topics, since the pairwise correlations among indicators do not differ much. An alternative to the simple average method is to give different weights to the topics, depending on which are considered of more or less importance in the context of a specific economy.

2. For getting credit, indicators are weighted proportionally, according to their contribution to the total score, with a weight of 60% assigned to the strength of legal rights index and 40% to the depth of credit information index. Indicators for all other topics are assigned equal weights.

3. Changes making it more difficult to do business are subtracted from the total number of those making it easier to do business.
Doing Business reforms affecting all sets of indicators included in this year’s report, implemented from June 2015 to June 2016.

- Reform making it easier to do business
- Change making it more difficult to do business

**Afghanistan**

- Trading across borders
  Afghanistan made exporting and importing easier by introducing a number of technical, human resource and infrastructure improvements to ASYCUDA World, an electronic data interchange system.
- Paying taxes
  Afghanistan made paying taxes more costly by increasing the business receipts tax rate.

**Albania**

- Dealing with construction permits
  Albania made dealing with construction permits easier by reintroducing the issuance of building permits and streamlining the process of receiving the final inspection and compliance certificate.
- Getting electricity
  Albania made getting electricity easier by speeding up the process for obtaining a new connection.
- Trading across borders
  Albania made trading across borders more difficult by introducing mandatory scanning inspections for exports and imports, which increased the time and cost for border compliance.

- Paying taxes
  Albania made paying taxes easier by introducing an online system for filing and paying taxes.

**Algeria**

- Starting a business
  Algeria made starting a business easier by eliminating the minimum capital requirement for business incorporation.
- Dealing with construction permits
  Algeria made dealing with construction permits faster by reducing the time to obtain a construction permit.
- Getting electricity
  Algeria made getting electricity more transparent by publishing electricity tariffs on the websites of the utility and the energy regulator.
- Paying taxes
  Algeria made paying taxes less costly by decreasing the tax on professional activities rate. The introduction of advanced accounting systems also made paying taxes easier.

**Angola**

- Starting a business
  Angola made starting a business easier by eliminating the paid-in minimum capital requirement.

Reforms affecting the labor market regulation indicators are included here but do not affect the ranking on the ease of doing business.
 Angola made paying taxes easier and less costly by reducing the frequency of advance payments of corporate income tax and increasing the allowable deductions for bad debt provisions. At the same time, Angola made interest income tax a final tax that is not deductible for the calculation of corporate income tax.

**Labor market regulation**
Angola adopted a new labor law that decreased the wage premium for overtime and night work and increased the wage premium for work on weekly holidays. The law also extended the maximum duration of fixed-term contracts and made fixed-term contracts able to be used for permanent tasks, reduced severance pay for redundancy dismissals of employees with five and ten years of continuous employment and increased severance pay for employees with one continuous year of service.

**Antigua and Barbuda**

сидеть

**Argentina**

* Dealing with construction permits
Argentina made dealing with construction permits more difficult by increasing municipal fees.

* Trading across borders
Argentina made trading across borders easier by introducing a new licensing system for importing, which reduced the time required for documentary compliance.

* Paying taxes
Argentina made paying taxes less costly by increasing the threshold for the 5% turnover tax. Argentina also made paying taxes easier by introducing improvements to the online portal for filing taxes.

**Armenia**

* Getting credit
Armenia strengthened access to credit by adopting a new law on secured transactions that establishes a modern and centralized collateral registry. Armenia improved its credit information system by adopting a new law on personal data protection.

* Enforcing contracts
Armenia made enforcing contracts easier by introducing a consolidated chapter regulating voluntary mediation and by establishing financial incentives for the parties to attempt mediation.

**Azerbaijan**

* Getting electricity
Azerbaijan streamlined the process of obtaining a new electricity connection by introducing an electronic capacity/availability of connection map, which reduced the time needed to determine new customer connection points.

* Trading across borders
Azerbaijan made trading across borders easier by introducing an electronic system for submitting export and import declarations.

* Paying taxes
Azerbaijan made paying taxes easier by abolishing vehicle tax for residents.

**Bahamas, The**

* Starting a business
The Bahamas made starting a business easier by allowing local limited liability companies to register online. On the other hand, The Bahamas made starting a business more costly by increasing the fees for registering a company name and incorporation.

* Registering property
The Bahamas made registering property easier by reducing the cost of transferring a property.

**Bahrain**

* Starting a business
Bahrain made starting a business easier by reducing the minimum capital requirement.

* Getting credit
Bahrain improved access to credit information by guaranteeing by law borrowers’ right to inspect their own data.

* Trading across borders
Bahrain made exporting easier by improving infrastructure and streamlining procedures at the King Fahad Causeway.

**Bangladesh**

* Paying taxes
Bangladesh made paying taxes more complicated by introducing a value added tax (VAT).

**Barbados**

* Starting a business
Barbados made starting a business easier by reducing the time needed to register a company.
✓ Getting credit
In Belarus the credit bureau started to provide credit scores, strengthening the credit reporting system.

✓ Protecting minority investors
Belarus strengthened minority investor protections by introducing remedies in cases where related-party transactions are harmful to the company and requiring greater corporate transparency.

Benin
✓ Starting a business
Benin made starting a business easier by eliminating the need to notarize company bylaws to activate a bank account after incorporation.

✓ Resolving insolvency
Benin made resolving insolvency easier by introducing a new conciliation procedure for companies in financial difficulties and a simplified preventive settlement procedure for small companies.

Bolivia
✓ Starting a business
Bolivia made starting a business easier by decreasing the time needed to register a company.

✓ Dealing with construction permits
Bolivia made dealing with construction permits more difficult by implementing a new requirement to pay for land registry certificates at the Judicial Council.

✓ Enforcing contracts
Bolivia made enforcing contracts easier by adopting a new code of civil procedure that introduces pre-trial conferences.

Bosnia and Herzegovina
✓ Starting a business
Bosnia and Herzegovina made starting a business easier by reducing the paid-in minimum capital requirement for limited liability companies and increasing the efficiency of the notary system.

✓ Paying taxes
Bosnia and Herzegovina made paying taxes easier by abolishing the tourist community fee.

Botswana
✓ Dealing with construction permits
Botswana made dealing with construction permits easier by eliminating the requirement to submit a rates clearance certificate to obtain a building permit.

Brazil
✓ Starting a business
Brazil reduced the time needed to start a business by implementing an online portal for business licenses in Rio de Janeiro. However, Brazil also made starting a business more difficult by shortening the opening hours of the business registry in Rio de Janeiro.

✓ Trading across borders
Brazil made trading across borders easier by implementing an electronic system for importing, which reduced the time required for documentary compliance. This reform applies to both Rio de Janeiro and São Paulo.

✓ Enforcing contracts
Brazil made enforcing contracts easier through a new mediation law—that includes financial incentives for parties to attempt mediation—and a new code of civil procedure. These reforms apply to both Rio de Janeiro and São Paulo.

Labor market regulation
Brazil expanded eligibility for unemployment benefits to employees with one year of continuous work experience. This reform applies to both Rio de Janeiro and São Paulo.

Brunei Darussalam
✓ Getting electricity
The utility in Brunei Darussalam streamlined the processes of reviewing applications, and the time to issue an excavation permit was reduced. In addition, Brunei Darussalam increased the reliability of power supply by rolling out a Supervisory Control and Data Acquisition (SCADA) automatic energy management system for the monitoring of outages and the restoration of service.

✓ Getting credit
Brunei Darussalam improved access to credit information by beginning to distribute data from two utility companies. In addition, Brunei Darussalam strengthened access to credit by adopting a new insolvency law that contemplates protections for secured creditors during an automatic stay in reorganization proceedings.

✓ Protecting minority investors
Brunei Darussalam strengthened minority investor protections by clarifying ownership and control structures, making it easier to sue directors in case of prejudicial related-party transactions and allowing the resis- sion of related-party transactions that harm the company.

✓ Paying taxes
Brunei Darussalam made paying taxes easier by fully implementing an electronic system for filing and paying corporate income tax.

✓ Enforcing contracts
Brunei Darussalam made enforcing contracts easier by introducing an electronic filing system as well as a platform that allows users to pay court fees electronically.

✓ Resolving insolvency
Brunei Darussalam made resolving insolvency easier by adopting a new insolvency law that introduced a reorganization procedure and facilitated continuation of the debtor’s business during insolvency proceedings. Brunei Darussalam also introduced regulations for insolvency practitioners.

Bulgaria
✓ Getting electricity
Bulgaria increased the reliability of power supply by implementing an automatic energy management system, the Supervisory Control and Data Acquisition (SCADA), to monitor outages and service restoration.
**Burkina Faso**

- **Starting a business**
  Burkina Faso made starting a business easier by reducing the paid-in minimum capital required to register a company.

- **Getting credit**
  Burkina Faso improved access to credit information by introducing regulations that govern the licensing and functioning of credit bureaus in West African Economic and Monetary Union (UEMOA) member states.

- **Resolving insolvency**
  Burkina Faso made resolving insolvency easier by introducing a new conciliation procedure for companies in financial difficulties and a simplified preventive settlement procedure for small companies.

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**Cameroon**

- **Dealing with construction permits**
  Cameroon made dealing with construction permits easier by reducing the time it takes to obtain the building permit and strengthening the Building Quality Control Index by increasing transparency.

- **Paying taxes**
  Cameroon made paying taxes more costly by increasing the minimum tax rate for companies.

- **Resolving insolvency**
  Cameroon made resolving insolvency easier by introducing a new conciliation procedure for companies in financial difficulties and a simplified preventive settlement procedure for small companies.

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**Burundi**

- **Paying taxes**
  Burundi made paying taxes easier by introducing a new tax return and eliminating the personalized VAT declaration form.

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**Cabo Verde**

- **Labor market regulation**
  Cabo Verde introduced unemployment insurance for workers with a contribution period of at least six months.

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**Cambodia**

- **Starting a business**
  Cambodia made starting a business more difficult by increasing the time required to register and by requiring companies to submit evidence of capital deposit after registration.

- **Getting credit**
  In Cambodia the credit bureau started to provide credit scores to banks and financial institutions, improving access to credit information.

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**Central African Republic**

- **Resolving insolvency**
  The Central African Republic made resolving insolvency easier by introducing a new conciliation procedure for companies in financial difficulties and a simplified preventive settlement procedure for small companies.

---

**Chad**

- **Starting a business**
  Chad made starting a business easier by reducing the paid-in minimum capital required to register a company.

- **Resolving insolvency**
  Chad made resolving insolvency easier by introducing a new conciliation procedure for companies in financial difficulties and a simplified preventive settlement procedure for small companies.

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**China**

- **Starting a business**
  China made starting a business easier by introducing a single form to obtain a business license, organization code and tax registration. This reform applies to both Shanghai and Beijing.

- **Getting credit**
  China improved access to credit information by starting to report payment histories from utility companies and providing credit scores to banks and financial institutions. This reform applies to both Shanghai and Beijing.

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**Colombia**

- **Starting a business**
  Colombia made starting a business easier by streamlining registration procedures.

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**Comoros**

- **Registering property**
  The Comoros made transferring a property less expensive by reducing transfer costs.

- **Resolving insolvency**
  The Comoros made resolving insolvency easier by introducing a new conciliation procedure for companies in financial difficulties and a simplified preventive settlement procedure for small companies.

- **Labor market regulation**
  The Comoros reduced the length of notice period and amount of severance payment for redundancy dismissals.

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**Congo, Dem. Rep.**

- **Dealing with construction permits**
  The Democratic Republic of Congo made dealing with construction permits easier by improving building quality control and reducing the time it takes to obtain the building permit.

- **Registering property**
  The Democratic Republic of Congo made it more expensive to transfer property by increasing the property transfer tax.

- **Resolving insolvency**
  The Democratic Republic of Congo made resolving insolvency easier by introducing a new conciliation procedure for companies in financial difficulties and a simplified preventive settlement procedure for small companies.
Labor market regulations
The Democratic Republic of Congo adopted legislation that prohibits discrimination in hiring on the basis of gender.

Congo, Rep.
✓ Resolving insolvency
The Republic of Congo made resolving insolvency easier by introducing a new conciliation procedure for companies in financial difficulties and a simplified preventive settlement procedure for small companies.

✓ Getting credit
Côte d’Ivoire made dealing with construction permits more transparent by making building regulations accessible online.

✓ Getting credit
Côte d’Ivoire improved access to credit information by establishing a new credit bureau.

✓ Enforcing contracts
Côte d’Ivoire made enforcing contracts easier by introducing a simplified fast-track procedure for small claims that allows for parties’ self-representation.

✓ Resolving insolvency
Côte d’Ivoire made resolving insolvency easier by introducing a new conciliation procedure for companies in financial difficulties and a simplified preventive settlement procedure for small companies.

Croatia
✗ Starting a business
Croatia made starting a business more difficult by increasing notary fees.

✓ Protecting minority investors
Croatia strengthened minority investor protections by requiring detailed internal disclosure of conflicts of interest by directors.

✗ Paying taxes
Croatia made paying taxes more complicated by introducing a radio and television fee, and eliminating the reduction of the Chamber of Economy fee for new companies.

Cyprus
✓ Starting a business
Cyprus made starting a business easier by merging the procedures to register for taxes and VAT, and making company name search and reservation faster.

✓ Getting credit
Cyprus made access to credit information more difficult by stopping the distribution of historical credit data.

✓ Paying taxes
Cyprus made paying taxes easier by introducing improvements to its internal processes and to the electronic tax filing system. Cyprus also made paying taxes less costly by increasing the discount rate applied on immovable property tax.

Labor market regulation
Cyprus amended its legislation to allow shops and supermarkets to operate seven days a week.

Czech Republic
✓ Starting a business
The Czech Republic made starting a business easier by reducing the cost and the time required to register a company in commercial courts by allowing notaries to directly register companies through an online system.

✓ Getting electricity
The Czech Republic made getting electricity faster by designating personnel to deal with all incoming connection applications.

Dominica
✓ Paying taxes
Dominica made paying taxes less costly by reducing the corporate income tax rate.

Dominican Republic
✓ Getting electricity
The Dominican Republic made getting an electricity connection faster by reducing the time required to approve electrical connection plans.

✓ Paying taxes
The Dominican Republic made paying taxes less costly by decreasing the corporate income tax rate.

Ecuador
✓ Starting a business
Ecuador made starting a business easier by eliminating the publication of company charters in local newspapers.

✓ Enforcing contracts
Ecuador adopted a new code of civil procedure that made enforcing contracts easier by introducing a pre-trial conference. The new code also made enforcing contracts more difficult by eliminating a dedicated procedure for the resolution of small claims.

Egypt, Arab Rep.
✓ Starting a business
The Arab Republic of Egypt made starting a business easier by merging procedures at the one-stop shop by introducing a follow-up unit in charge of liaising with the tax and labor authority on behalf of the company.

✓ Protecting minority investors
The Arab Republic of Egypt strengthened minority investor protections by increasing shareholder rights and role in major corporate decisions and by clarifying ownership and control structures.

✗ Trading across borders
The Arab Republic of Egypt made trading across borders more difficult by making the process of obtaining and processing documents more complex and by imposing a cap on foreign exchange deposits and withdrawals for imports.

El Salvador
✗ Getting credit
El Salvador made access to credit information more difficult by reducing the coverage of the credit bureau.
Paying taxes
El Salvador made paying taxes easier by encouraging the use of the electronic system for filing taxes.

Equatorial Guinea

- **Starting a business**
  Equatorial Guinea made starting a business easier by eliminating the requirement to obtain company founders’ criminal records.

- **Paying taxes**
  Equatorial Guinea made paying taxes more costly by increasing the minimum tax.

- **Resolving insolvency**
  Equatorial Guinea made resolving insolvency easier by introducing a new conciliation procedure for companies in financial difficulties and a simplified preventive settlement procedure for small companies.

Fiji

- **Starting a business**
  Fiji made starting a business easier by reducing the time required to start a business. Fiji also made starting a business less costly by reducing fees at the business registry.

- **Getting credit**
  The credit bureau in Fiji suspended operations making it more difficult to gain access to credit information.

- **Protecting minority investors**
  Fiji strengthened minority investor protections by introducing greater disclosure requirements for related-party transactions.

France

- **Dealing with construction permits**
  France made dealing with construction permits less expensive by reducing the cost of obtaining a building permit.

- **Registering property**
  France made transferring property more expensive by increasing property transfer tax rate and introducing an additional tax for businesses in Paris.

Labor market regulation
France reformed its labor legislation by introducing changes to the administration of labor tribunals, extending Sunday and evening work in areas designated as international tourist zones and facilitating employee-employer dialogue.

Gabon

- **Resolving insolvency**
  Gabon made resolving insolvency easier by introducing a new conciliation procedure for companies in financial difficulties and a simplified preventive settlement procedure for small companies.

Gambia, The

- **Getting credit**
  The Gambia strengthened access to credit by adopting a new law on secured transactions that implements a functional secured transactions system and establishes a centralized, notice-based collateral registry.

Georgia

- **Getting electricity**
  Georgia improved the reliability of electricity supply by introducing penalties for the utility for having worse scores on the annual system average interruption duration index (SAIDI) and system average interruption frequency index (SAIFI) than the previous year. Georgia also mandated the notification of customers by the utility of planned electricity outages.

- **Registering property**
  Georgia improved the quality of land administration by increasing coverage of all maps for privately held land plots in the main business city.

- **Protecting minority investors**
  Georgia strengthened minority investor protections by increasing shareholder rights and role in major corporate decisions and by clarifying ownership and control structures.

Ghana

- **Starting a business**
  Ghana made starting a business more costly by increasing registration and authentication fees.

- **Dealing with construction permits**
  Ghana made dealing with construction permits more expensive by increasing the cost of obtaining a building permit.

- **Trading across borders**
  Ghana made trading across borders easier by removing the mandatory pre-arrival assessment inspection at origin for imported goods.

Greece

- **Paying taxes**
  Greece made paying taxes more costly by increasing the corporate income tax rate.

- **Enforcing contracts**
  Greece made enforcing contracts easier by amending its rules of civil procedure to introduce tighter rules on adjournments, impose deadlines for key court events and limit the recourse that can be lodged during enforcement proceedings.

Grenada

- **Trading across borders**
  Grenada made trading across borders easier by streamlining import document submission procedures, reducing the time required for documentary compliance.
<table>
<thead>
<tr>
<th>Country</th>
<th>Category</th>
<th>Description</th>
<th>Reform applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guatemala</td>
<td>Paying taxes</td>
<td>Guatemala made paying taxes less costly by reducing the rate of corporate income tax.</td>
<td></td>
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<tr>
<td>Guinea</td>
<td>Resolving insolvency</td>
<td>Guinea made resolving insolvency easier by introducing a new conciliation procedure for companies in financial difficulties and a simplified preventive settlement procedure for small companies.</td>
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</tr>
<tr>
<td>Guinea-Bissau</td>
<td>Resolving insolvency</td>
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<tr>
<td>Guyana</td>
<td>Registering property</td>
<td>Guyana made registering property easier by increasing the transparency of the Lands and Survey Commission.</td>
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</tr>
<tr>
<td>Haiti</td>
<td>Trading across borders</td>
<td>Haiti made trading across borders easier by improving port infrastructure and further implementing the ASYCUDA World electronic data interchange system by allowing the online submission of supporting documents.</td>
<td></td>
</tr>
<tr>
<td>Honduras</td>
<td>Trading across borders</td>
<td>Honduras made trading across borders more difficult by increasing the number of intrusive inspections for importing, which increased the border compliance time.</td>
<td></td>
</tr>
<tr>
<td>Hong Kong SAR, China</td>
<td>Starting a business</td>
<td>Hong Kong SAR, China, made starting a business less costly by reducing the business registration fee.</td>
<td>Reform applies to both Mumbai and Delhi.</td>
</tr>
<tr>
<td></td>
<td>Getting electricity</td>
<td>Hong Kong SAR, China, streamlined the processes of reviewing applications for new electrical connections and also reduced the time needed to issue an excavation permit.</td>
<td></td>
</tr>
<tr>
<td>Hungary</td>
<td>Paying taxes</td>
<td>Hungary made paying taxes less costly for small and medium-size businesses by allowing tax relief by means of an additional deduction for new acquisitions of land and buildings.</td>
<td>Reform applies to both Jakarta and Surabaya.</td>
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<td></td>
<td>Enforcing contracts</td>
<td>Hungary made enforcing contracts easier by introducing an electronic filing system.</td>
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<tr>
<td></td>
<td>Labor market regulation</td>
<td>Hungary amended legislation to remove restrictions limiting the operating hours for retail shops.</td>
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<tr>
<td>India</td>
<td>Getting electricity</td>
<td>India made getting electricity faster and cheaper by streamlining the process of getting a new commercial electricity connection. This reform impacts Delhi.</td>
<td>Reform applies to both Jakarta and Surabaya.</td>
</tr>
<tr>
<td></td>
<td>Paying taxes</td>
<td>India made paying taxes easier by introducing an electronic system for paying employee state insurance contributions. This reform applies to both Mumbai and Delhi.</td>
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<tr>
<td></td>
<td>Enforcing contracts</td>
<td>India made enforcing contracts easier by creating dedicated divisions to resolve commercial cases. This reform applies to both Mumbai and Delhi.</td>
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<tr>
<td></td>
<td>Getting credit</td>
<td>Indonesia made getting an electricity connection faster by reducing the time for contractors to perform external work thanks to an increase in the stock of electrical material supplied by the utility. In Surabaya, getting electricity was also made easier after the utility streamlined the process for new connection requests.</td>
<td>Reform applies to both Jakarta and Surabaya.</td>
</tr>
<tr>
<td></td>
<td>Registering property</td>
<td>Indonesia made it easier to register property by digitizing its cadastral records and setting up a geographic information system. This reform applies to both Jakarta and Surabaya.</td>
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<tr>
<td></td>
<td>Getting credit</td>
<td>Indonesia strengthened access to credit by establishing a modern collateral registry. This reform applies to both Jakarta and Surabaya.</td>
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<tr>
<td></td>
<td>Paying taxes</td>
<td>Indonesia made paying taxes easier by introducing an online system for filing and paying health contributions. Indonesia also made paying taxes more costly by levying a new pension contribution at a rate of 2% paid by employers. These reforms apply to both Jakarta and Surabaya.</td>
<td></td>
</tr>
</tbody>
</table>
Trading across borders
Indonesia made exporting and importing easier by improving the customs services and document submission functions of the national single window. This reform applies to both Jakarta and Surabaya.

Enforcing contracts
Indonesia made enforcing contracts easier by introducing a dedicated procedure for small claims that allows for parties’ self-representation. This reform applies to both Jakarta and Surabaya.

Iran, Islamic Rep.
Trading across borders
The Islamic Republic of Iran made exporting and importing easier by improving and expanding the services offered by the national single window.

Iraq
Dealing with construction permits
Iraq made dealing with construction permits easier by allowing the simultaneous processing of utility clearances and building permit applications.

Getting electricity
The Ministry of Electricity made getting electricity faster by enforcing tighter deadlines on electricity connections.

Ireland
Starting a business
Ireland made starting a business easier by removing the requirement that a founder seeking to incorporate a company swear before a commissioner of oaths.

Israel
Starting a business
Israel made starting a business easier by merging registration for tax and social security.

Italy
Paying taxes
Italy made paying taxes easier by allowing full cost of labor to be deductible for regional tax on productive activities (IRAP) purposes, as well as updating coefficients used for calculation of tax on real estate (IMU) and municipal service tax (TASI). Furthermore the electronic system for preparing and paying labor taxes was improved.

Jamaica
Starting a business
Jamaica made starting a business more difficult by removing the ability to complete next-day company incorporation.

Paying taxes
Jamaica made paying taxes less costly by increasing tax depreciation rates and the initial capital allowance for assets acquired on or after January 1, 2014. Furthermore, companies incorporated for less than 24 months are exempted from paying the minimum business tax. Jamaica also made paying taxes easier by implementing an electronic system for filing of corporate income tax, VAT and social security contributions.

Trading across borders
Jamaica reduced the time of documentary compliance for exporting by implementing ASYCUDA World, an automated customs data management system.

Japan
Paying taxes
Japan made paying taxes easier by disclosing the technical specifications of the eTax platform and allowing the upload of additional information in comma separated value (CSV) format. The restoration surtax was also abolished. However, a local corporation tax was introduced and the rates of special local corporation tax, inhabitants tax and enterprise tax were raised.

Welfare pension premiums were also raised. These reforms apply to both Tokyo and Osaka. However, the rate for health insurance contributions paid by employers was reduced only in Osaka.

Jordan
Paying taxes
Jordan made paying taxes less costly by increasing the depreciation rates for some fixed assets.

Trading across borders
Jordan made exporting and importing easier by streamlining customs clearance processes, advancing the use of a single window and improving infrastructure at the Port of Aqaba.

Kazakhstan
Starting a business
Kazakhstan simplified the process of starting a business by abolishing the requirement to notarize company documents and founders’ signatures.

Dealing with construction permits
Kazakhstan made dealing with construction permits easier by introducing a single window and streamlining procedures.

Getting electricity
Kazakhstan streamlined the process of obtaining an electricity connection by eliminating the need for an official excavation permit and an inspection by the State Energy Supervision Committee. Kazakhstan also reduced the time needed to fulfill utility technical requirements and to sign supply contracts. The reliability of the power supply in Kazakhstan was also improved following the establishment of normative levels for the annual system average interruption duration index (SAIDI) and system average interruption frequency index (SAIFI).

Protecting minority investors
Kazakhstan strengthened minority investor protections by introducing greater requirements for immediate disclosure of related-party transactions.
to the public, increasing shareholder rights and role in major corporate decisions, clarifying ownership and control structures and requiring greater corporate transparency.

✓ Trading across borders
Kazakhstan made exporting less costly by removing two export documents required for customs clearance.

✓ Enforcing contracts
Kazakhstan made enforcing contracts easier by adopting a new code of civil procedure and by regulating the maximum number of adjournments that can be granted by a judge in a given case.

✓ Resolving insolvency
Kazakhstan made resolving insolvency easier by changing voting procedures for reorganization plans and providing protections to creditors who vote against such plans. Additionally, creditors were granted greater access to information about the debtor during insolvency proceedings and allowed to challenge decisions affecting their rights.

Labor market regulation
Kazakhstan adopted a new labor code that decreased the wage premium for work on weekly holidays, eliminated the requirement to reassign employees before making them redundant, extended the maximum duration of probationary periods and introduced mandatory out-of-court mediation procedures before parties can file claims in court.

Kenya

✓ Starting a business
Kenya made starting a business easier by removing the stamp duty fees required for the nominal capital, memorandum and articles of association. Kenya also eliminated requirements to sign the declaration of compliance before a commissioner of oaths. However, Kenya also made starting a business more expensive by introducing a flat fee for company incorporation.

✓ Getting electricity
Kenya streamlined the process of getting electricity by introducing the use of a geographic information system which eliminates the need to conduct a site visit, thereby reducing the time and interactions needed to obtain an electricity connection.

✓ Registering property
Kenya made registering property easier by increasing the transparency at its land registry and cadaster.

✓ Protecting minority investors
Kenya strengthened minority investor protections by introducing greater requirements for disclosure of related-party transactions to the board of directors, by making it easier to sue directors in cases of prejudicial related-party transactions and by allowing the rescission of related-party transactions that are shown to harm the company.

✓ Resolving insolvency
Kenya made resolving insolvency easier by introducing a reorganization procedure, facilitating continuation of the debtor’s business during insolvency proceedings and by introducing regulations for insolvency practitioners.

Korea, Rep.

✓ Starting a business
Korea made starting a business faster by eliminating post-registration procedures.

Kosovo

✓ Paying taxes
Kosovo made paying taxes easier by introducing an online system for filing and paying VAT and social security contributions, and it made paying taxes less costly by allowing more types of expenses to be deducted for the calculation of corporate income tax.

✓ Trading across borders
Kosovo reduced the time and cost of documentary compliance and the time of border compliance for exporting by improving its automated customs data management system, streamlining customs clearance processes and implementing the Albania-Kosovo Transit Corridor.

Kuwait

✓ Starting a business
Kuwait made starting a business more difficult by increasing the time needed to register by requiring companies to submit the original documents both online and in person.

✓ Trading across borders
Kuwait made exporting and importing easier by introducing customs electronic links and facilitating the electronic exchange of information among various agencies.

Kyrgyz Republic

✓ Trading across borders
The Kyrgyz Republic decreased the time and cost needed for exporting by becoming a member of the Eurasian Economic Union.

Lao PDR

✓ Starting a business
The Lao People's Democratic Republic made the process of starting a business faster by implementing simplified procedures for obtaining a license and a registered company seal.

✓ Getting electricity
Lao PDR improved the regulation of outages by beginning to record data for the annual system average interruption duration index (SAIDI) and system average interruption frequency index (SAIFI).

Latvia

✓ Getting credit
Latvia improved access to credit information by launching a private credit bureau.

✓ Paying taxes
Latvia made paying taxes less complicated by improving its online systems for filing corporate income tax returns and mandatory labor contributions.
Lesotho

✓ Getting credit
Lesotho improved access to credit information by expanding the coverage of its credit bureau.

Liberia

Labor market regulation
Liberia shortened the workweek by increasing the mandatory number of weekly rest hours to 36 consecutive hours with Sunday designated as the weekly holiday. It also mandated a maximum of five overtime hours per week. Liberia also introduced paid annual leave entitlements to employees after one year of employment, extended the duration of paid maternity leave and mandated equal remuneration for work of equal value.

Lithuania

✓ Getting electricity
Lithuania made getting electricity faster by introducing time limits on the utility to conduct necessary connection procedures and lowering the connection tariff.

Macedonia, FYR

✓ Getting credit
The former Yugoslav Republic of Macedonia improved access to credit by amending its laws to implement a functional secured transactions system, provide modern features for the collateral registry and allow parties to grant nonpossessory security rights in a single category of assets with general descriptions.

✓ Protecting minority investors
FYR Macedonia strengthened minority investor protections by increasing shareholder rights and role in major corporate decisions, allowing greater access to corporate information during trial and clarifying ownership and control structures.

✓ Enforcing contracts
FYR Macedonia made enforcing contracts more difficult by adopting amendments to the Law on Civil Procedure that mandate mediation before filing a claim, thus lengthening the initial phase of judicial proceedings.

✓ Resolving insolvency
FYR Macedonia made resolving insolvency easier by changing voting procedures for the reorganization plans and allowing creditors greater participation in insolvency proceedings.

Madagascar

✓ Starting a business
Madagascar made starting a business easier by reducing the number of procedures needed to register a company.

✓ Dealing with construction permits
Madagascar increased the transparency of dealing with construction permits by publishing construction-related regulations online and free of charge.

✓ Trading across borders
Madagascar made trading across borders easier by simplifying and streamlining customs procedures and implementing an electronic data interchange system, reducing the time for preparation and submission of trade documents for exporting and importing.

Malawi

✓ Starting a business
Malawi made starting a business easier by eliminating the legal requirement to use a company seal.

✓ Getting credit
Malawi strengthened access to credit by adopting a new law on secured transactions that implements a functional secured transactions system and establishes a centralized, notice-based, online collateral registry.

Malaysia

✓ Starting a business
Malaysia made starting a business more difficult by requiring that companies with an annual revenue of more than MYR 500,000 register as a GST payer.

✓ Getting credit
In Malaysia the credit bureau began to provide consumer credit scores.

✓ Paying taxes
Malaysia made paying taxes easier by introducing an online system for filing and paying goods and services tax (GST) while also making it more complex by replacing sales tax with GST.

Mali

✓ Starting a business
Mali made starting a business easier by reducing the paid-in minimum capital required to register a company.

✓ Getting credit
Mali improved access to credit information by establishing a new credit bureau.

✓ Resolving insolvency
Mali made resolving insolvency easier by introducing a new conciliation procedure for companies in financial difficulties and a simplified preventive settlement procedure for small companies.

Malta

✓ Starting a business
Malta made starting a business easier by offering automatic registration with the Inland Revenue Department following the receipt of the company registration number.

✓ Getting credit
Malta improved access to credit information by launching a new credit registry.

✓ Paying taxes
Malta made paying taxes more costly by replacing the capital gains tax with a property transfer tax, and increasing
the maximum social security contribution paid by employers.

**Mauritania**

- **Getting credit**
  Mauritania improved access to credit information by providing banks and financial institutions with online access to credit registry data.

- **Protecting minority investors**
  Mauritania strengthened minority investor protections by requiring prior external review of related-party transactions, by increasing director liability and by expanding shareholders’ role in major transactions.

- **Paying taxes**
  Mauritania made paying taxes easier by reducing the frequency of both tax filing and payment of social security contributions.

- **Trading across borders**
  Mauritania made trading across borders easier by upgrading to the ASYCUDA World electronic data interchange system, which reduced the time for preparation and submission of customs declarations for both exports and imports.

**Mauritius**

- **Registering property**
  Mauritius made registering property easier by digitizing its land records.

**Mexico**

- **Starting a business**
  Mexico made starting a business more difficult by discontinuing the use of an online portal for tax and business registration. This reform applies to Mexico City.

- **Registering property**
  Mexico made registering property easier by digitizing its land records, improving the quality of the land registry infrastructure and making the registration process more efficient. This reform applies to Mexico City.

**Labor market regulation**

Mexico adopted a resolution that eliminated geographic differences in national minimum wages. Prior to the reform Mexico was divided into two zones—zone A and zone B—with different applicable minimum wages. This reform applies to both Mexico City and Monterrey.

**Moldova**

- **Starting a business**
  Moldova made starting a business more costly by increasing the cost of company registration.

- **Getting electricity**
  Moldova streamlined the process of obtaining a new electricity connection by eliminating the need for new customers with a capacity of less than 200 kilowatts to obtain an inspection from the State Energy Inspectorate.

- **Paying taxes**
  Moldova made paying taxes easier by eliminating a requirement to submit social security documents in hard copy. However, Moldova also made paying taxes more costly by raising rates for road tax, environmental levy and health insurance contributions paid by employers.

- **Enforcing contracts**
  Moldova made enforcing contracts easier by adopting a new mediation law establishing financial incentives for the parties to attempt mediation.

**Mongolia**

- **Paying taxes**
  Mongolia made paying taxes easier by introducing an electronic system for filing and payment of taxes.

- **Enforcing contracts**
  At the same time, Montenegro made paying taxes more costly by increasing the health contribution rate paid by employers.

**Morocco**

- **Starting a business**
  Morocco made the process of starting a business easier by introducing an online platform to reserve a company name and reducing registration fees.

- **Registering property**
  Morocco made registering property easier by streamlining the property registration process.

- **Getting credit**
  In Morocco the credit bureau began to provide credit scores.

- **Protecting minority investors**
  Morocco strengthened minority investor protections by clarifying ownership and control structures and by requiring greater corporate transparency.

- **Trading across borders**
  Morocco reduced the time for border compliance for importing by further developing its single window system.

**Mozambique**

- **Starting a business**
  Mozambique made starting a business more difficult by increasing registration and notary fees.

- **Getting credit**
  Mozambique improved access to credit information by enacting a law that allows the establishment of a new credit bureau.

**Myanmar**

- **Starting a business**
  Myanmar made starting a business easier by reducing the cost to register a company. It also simplified the process by removing the requirement to submit a reference letter and a criminal history certificate in order to incorporate a company.
Getting credit
Myanmar improved its credit information system by enacting a law that allows the establishment of a new credit bureau.

Trading across borders
Myanmar made trading across borders more difficult for traders as they experience higher cost and time delays due to congestion at the port of Yangon.

Labor market regulation
Myanmar introduced a minimum wage and changed the regulation of severance pay.

Nepal
Dealing with construction permits
Nepal made dealing with construction permits more difficult by increasing the cost of obtaining a building permit.

Trading across borders
Nepal made exporting and importing easier by implementing ASYCUDA World, an electronic data interchange system.

New Zealand
Paying taxes
New Zealand made paying taxes easier by abolishing the cheque levy. New Zealand made paying less costly by decreasing the rate of accident compensation levy paid by employers. At the same time, New Zealand made paying taxes more costly by raising property tax and road user levy rates.

Nicaragua
Trading across borders
Nicaragua made trading across borders more expensive by introducing a new security fee, increasing the cost of border compliance for exporting and importing.

Niger
Starting a business
Niger made starting a business easier by reducing the time and cost needed to register a company. Niger also eliminated the requirement to notarize a company’s bylaws.

Getting credit
Niger improved access to credit information by establishing a new credit bureau.

Protecting minority investors
Niger strengthened minority investor protections by introducing a provision that requires the winning party’s legal expenses be reimbursed by the losing party.

Trading across borders
Niger made trading across borders easier by removing the mandatory pre-shipment inspection for imported products.

Enforcing contracts
Niger made enforcing contracts easier by creating a specialized commercial court in Niamey and by adopting a new code of civil procedure that establishes time standards for key court events.

Resolving insolvency
Niger made resolving insolvency easier by introducing a new conciliation procedure for companies in financial difficulties and a simplified preventive settlement procedure for small companies.

Nigeria
Starting a business
Nigeria made starting a business easier by improving online government portals. This reform applies to both Kano and Lagos.

Getting credit
Nigeria strengthened access to credit by creating a centralized collateral registry. This reform applies to both Kano and Lagos.

Norway
Enforcing contracts
Norway made enforcing contracts easier by introducing an electronic filing system for court users.

Labor market regulation
Norway allowed the use of fixed-term contracts for permanent tasks for 12 months.

Oman
Starting a business
Oman made starting a business easier by removing the requirement to pay the minimum capital within three months of incorporation and streamlining the registration of employees.

Trading across borders
Oman reduced the time for border and documentary compliance by introducing a new online single window that allows for rapid electronic clearance of goods.

Pakistan
Registering property
Pakistan improved the quality of land administration by digitizing ownership and land records. This reform applies to Lahore.
Getting credit
Pakistan improved access to credit information guaranteeing by law borrowers’ rights to inspect their own data. The credit bureau also expanded its borrower coverage. This reform applies to both Lahore and Karachi.

Trading across borders
Pakistan made exporting and importing easier by enhancing its electronic customs platform. This reform applies to both Lahore and Karachi.

Papua New Guinea

Starting a business
Papua New Guinea reduced the time required to start a business by streamlining business registration at the Investment Promotion Agency (IPA).

Getting credit
Papua New Guinea strengthened access to credit by adopting a new law on secured transactions that implemented a functional secured transactions system and established a centralized, notice-based collateral registry. The new law broadens the scope of assets that can be used as collateral and allows out-of-court enforcement of collateral.

Poland

Dealing with construction permits
Poland made dealing with construction permits simpler by streamlining the process of obtaining a building permit.

Getting electricity
Poland made getting an electricity connection faster by eliminating the need to secure an excavation permit for external connection works, which reduced the time of mentioned works.

Resolving insolvency
Poland made resolving insolvency easier by introducing new restructuring mechanisms, changing voting procedures for restructuring plans and allowing creditors greater participation in insolvency proceedings. It also established a central restructuring and bankruptcy register and released guidelines for the remuneration of insolvency representatives.

Labor market regulation
Poland reduced the maximum duration of fixed-term contracts to 33 months and limited the total number of fixed-term contracts between the same employer and employee to three.

Peru

Paying taxes
Peru made paying taxes less costly by decreasing the corporate income tax rate.

Portugal

Getting electricity
Portugal made getting an electricity connection faster by reducing the time required to approve electrical connection requests.

Paying taxes
Portugal made paying taxes easier and less costly by using better accounting software and enhancing the online filing system of taxes and decreasing the corporate income tax rate.

Labor market regulation
Portugal reduced the maximum duration of fixed-term contracts.

Puerto Rico (U.S.)

Registering property
Puerto Rico (U.S.) made registering property easier by digitizing its land records and improving the quality of infrastructure and transparency of its land administration system.

Paying taxes
Puerto Rico (U.S.) made paying taxes less costly by abolishing gross receipts tax. However, the capital gains tax rate was increased.

Qatar

Starting a business
Qatar made starting a business easier by abolishing the paid-in minimum capital requirement for limited liability companies.

Registering property
Qatar made registering property easier by increasing the transparency at its land registry.

Protecting minority investors
Qatar weakened minority investor protections by decreasing the rights of shareholders in major decisions, by diminishing ownership and control structures, by reducing requirements for approval of related-party transactions and their disclosure to the board of directors and by limiting the liability of interested directors and board of directors in the event of prejudicial related-party transactions.
Romania

- **Starting a business**
  Romania made starting a business more difficult by increasing the time needed to register for VAT.

Russian Federation

- **Dealing with construction permits**
  The Russian Federation made dealing with construction permits easier by removing the requirements to obtain permission to fence the construction site and to obtain approval of the architectural and urban planning design for non-residential buildings. This reform only applies to the city of St. Petersburg.

- **Enforcing contracts**
  Russia made enforcing contracts more difficult by mandating pre-trial resolution before filing a claim, thereby lengthening the initial phase of judicial proceedings. This reform applies to both Moscow and St. Petersburg.

Rwanda

- **Starting a business**
  Rwanda made starting a business easier by improving the online registration one-stop shop and streamlining post-registration procedures.

- **Dealing with construction permits**
  Rwanda made dealing with construction permits more cumbersome and expensive by introducing new requirements to obtain a building permit. At the same time, Rwanda also strengthened quality control by establishing required qualifications for architects and engineers.

- **Registering property**
  Rwanda made it easier to register property by introducing effective time limits and increasing the transparency of the land administration system.

- **Paying taxes**
  Rwanda made paying taxes more complicated by introducing a requirement that companies file and pay social security contributions monthly instead of quarterly.

- **Trading across borders**
  Rwanda made trading across borders easier by removing the mandatory pre-shipment inspection for imported products.

- **Enforcing contracts**
  Rwanda made enforcing contracts easier by introducing an electronic case management system for judges and lawyers.

San Marino

- **Dealing with construction permits**
  San Marino made dealing with construction permits easier and cheaper by reducing the cost and streamlining the process of obtaining a building permit.

- **Paying taxes**
  San Marino made paying taxes less costly by introducing a 50% reduction of corporate income tax for new companies.

São Tomé and Príncipe

- **Labor market regulation**
  São Tomé and Príncipe adopted a minimum wage for the private sector.

Saudi Arabia

- **Starting a business**
  Saudi Arabia made starting a business easier by reducing the time to notarize a company’s articles of association.

- **Protecting minority investors**
  Saudi Arabia strengthened minority investor protections by strengthening ownership and control structures of companies and by increasing corporate transparency requirements.

- **Paying taxes**
  Saudi Arabia made paying taxes more difficult by introducing a more complex income tax return.

Senegal

- **Registering property**
  Senegal made registering property easier by increasing transparency at its land registry and cadaster.

- **Getting credit**
  Senegal improved access to credit information by establishing a new credit bureau.

- **Paying taxes**
  Senegal made paying taxes less costly by reducing the maximum cap for corporate income tax and implementing more efficient accounting systems and software.

- **Resolving insolvency**
  Senegal made resolving insolvency easier by introducing a new conciliation procedure for companies in financial difficulties and a simplified preventive settlement procedure for small companies.

Serbia

- **Starting a business**
  Serbia simplified the process of starting a business by reducing the time to register a company.

- **Dealing with construction permits**
  Serbia made dealing with construction permits faster by implementing an online system and streamlining the process of obtaining building permits.

- **Registering property**
  Serbia simplified property transfer process by introducing effective time limits.

Sierra Leone

- **Starting a business**
  Sierra Leone made starting a business easier by reducing registration fees.
Singapore

✔ Dealing with construction permits
Singapore made dealing with construction permits easier by streamlining procedures and improving the online one-stop shop.

✔ Registering property
Singapore made it easier to transfer a property by introducing an independent mechanism for reporting errors on titles and maps.

✔ Paying taxes
Singapore made paying taxes easier by introducing improvements to the online system for filing corporate income tax returns and VAT returns. At the same time, the social security contribution rate paid by employers increased and the rebate of 30% on vehicle tax expired.

Slovak Republic

✔ Paying taxes
The Slovak Republic made paying taxes less costly and easier by reducing the motor vehicle tax and the number of property tax payments.

Solomon Islands

✔ Getting credit
The Solomon Islands improved access to credit information by establishing a credit bureau.

South Africa

✔ Starting a business
South Africa made starting a business easier by introducing an online portal to search for a company name.

✗ Registering property
South Africa made it more expensive to transfer property by increasing the property transfer tax.

✗ Paying taxes
South Africa made paying taxes more costly by increasing the rates of vehicle tax and property tax. At the same time the rate of social security contributions paid by employers was reduced. South Africa made paying taxes more complicated by increasing the time it takes to prepare VAT returns.

Spain

✔ Paying taxes
Spain made paying taxes less costly by reducing the property tax rate, vehicle tax rate, tax on property transfer, and abolishing the environmental fee. Spain made paying taxes easier by introducing a new electronic system for filing social security contributions.

✔ Enforcing contracts
Spain made enforcing contracts easier by introducing a mandatory electronic filing system for court users.

Sri Lanka

✔ Starting a business
Sri Lanka made starting a business easier by removing the stamp duty on newly issued shares.

✔ Protecting minority investors
Sri Lanka strengthened minority investor protections by requiring board and in some cases shareholder approval of related-party transactions and by requiring that such transactions undergo external review.

St. Kitts and Nevis

✗ Registering property
Saint Kitts and Nevis made it more difficult to transfer property due to a backlog of registration of property transfers at the Supreme Court Registry. However, the stamp duty was reduced for transferring property.

St. Lucia

✗ Getting electricity
The utility made getting electricity more difficult by introducing a requirement to obtain a current land registry extract to get a new connection.

✔ Trading across borders
St. Lucia made exporting and importing easier by upgrading its electronic data interchange system and linking the customs and port authorities through a common online platform.

Sudan

✗ Starting a business
Sudan made starting a business more difficult by increasing the cost of a company seal.

✗ Protecting minority investors
Sudan strengthened minority investor protections by introducing greater requirements for disclosure of related-party transactions to the board of directors and granting shareholders preemption rights in limited liability companies. However, Sudan weakened minority investor protections by making it more difficult to sue directors in case of prejudicial related-party transactions, decreasing shareholder rights and role in major corporate decisions and undermining ownership and control structures.

Sweden

✔ Registering property
Sweden made it easier to transfer a property by increasing administrative efficiency and introducing an independent and separate mechanism for reporting errors on maps.

Syrian Arab Republic

✗ Starting a business
The Syrian Arab Republic made starting a business more difficult by increasing the time for company registration and more costly by increasing fees for post-registration procedures.

✗ Registering property
Syria made registering property more complex by requiring a security clearance prior to transferring the property.
✓ **Enforcing contracts**
Syria made enforcing contracts easier by adopting a new code of civil procedure.

**Tajikistan**

✗ **Starting a business**
Tajikistan made starting a business more difficult by requiring that companies with annual revenue of more than SM 500,000 register as a VAT payer.

✓ **Paying taxes**
Tajikistan made paying taxes easier by introducing electronic invoices and expanding the electronic system for filing and paying taxes to include road tax. It also made paying taxes less costly by reducing road tax rates. On the other hand, land tax rates were increased.

**Tanzania**

✓ **Getting credit**
The credit bureau in Tanzania expanded credit bureau borrower coverage and began to distribute credit data from retailers.

✗ **Paying taxes**
Tanzania made paying taxes more complicated by increasing the frequency of filing of the skills development levy and more costly by introducing a workers’ compensation tariff paid by employers.

**Thailand**

✓ **Starting a business**
Thailand made starting a business easier by creating a single window for registration payment and reducing the time needed to obtain a company seal.

✓ **Getting credit**
Thailand improved access to credit information by starting to provide credit scores to banks and financial institutions.

✓ **Resolving insolvency**
Thailand made resolving insolvency easier by introducing new restructuring for small and medium-size companies and by streamlining provisions related to company liquidation.

**Togo**

✓ **Getting credit**
Togo improved access to credit information by introducing regulations that govern the licensing and functioning of credit bureaus in UEMOA member states.

✓ **Paying taxes**
Togo made paying taxes easier by streamlining the administrative process of complying with tax obligations.

✓ **Trading across borders**
Togo made trading across borders easier by implementing an electronic single window system, which reduced the time for border and documentary compliance for both exporting and importing.

✓ **Resolving insolvency**
Togo made resolving insolvency easier by introducing a new conciliation procedure for companies in financial difficulties and a simplified preventive settlement procedure for small companies.

**Tonga**

✗ **Dealing with construction permits**
Tonga made dealing with construction permits more complex by introducing two new procedures.

**Tunisia**

✓ **Getting credit**
Tunisia strengthened credit reporting by starting to distribute historical credit information and credit information from a telecommunications company.

**Turkey**

✓ **Starting a business**
Turkey made starting a business easier by allowing new companies to automatically receive potential tax identification number online through the Central Registration Recording System.

✓ **Paying taxes**
Turkey made paying taxes easier by introducing electronic invoicing and electronic bookkeeping. At the same time, however, Turkey also increased the rate of transaction tax applicable on checks.

**Uganda**

✓ **Starting a business**
Uganda made starting a business easier by eliminating the requirement that a commissioner of oaths must sign compliance declarations.

✓ **Paying taxes**
Uganda made paying taxes easier by eliminating a requirement for tax returns to be submitted in paper copy following online submission. At the same time, Uganda increased the stamp duty for insurance contracts.

✓ **Trading across borders**
Uganda made trading across borders easier by constructing the Malaba One-Stop Border Post, which reduced border compliance time for exports.

**Ukraine**

✓ **Protecting minority investors**
Ukraine strengthened minority investor protections by requiring interested director or shareholder to be excluded from the vote, by requiring that proposed related-party transactions undergo external review, by introducing remedies in cases where related-party transactions are harmful to the company and also clarifying ownership and control structures.

✓ **Enforcing contracts**
Ukraine made enforcing contracts easier by introducing a system that allows users to pay court fees electronically.

**United Arab Emirates**

✓ **Starting a business**
The United Arab Emirates made it easier to start a business by streamlining name reservation and articles of association notarization and...
merging registration procedures with the Ministry of Human Resources and General Pensions and Social Security Authority.

✔ Dealing with construction permits
The United Arab Emirates made dealing with construction permits easier by implementing risk-based inspections and merging the final inspection into the process of obtaining a completion certificate.

✔ Getting electricity
The United Arab Emirates reduced the time required to obtain a new electricity connection by implementing a new program with strict deadlines for reviewing applications, carrying out inspections and meter installations. The United Arab Emirates also introduced compensation for power outages.

✔ Registering property
The United Arab Emirates made registering property easier by increasing the transparency at its land registry.

✔ Protecting minority investors
The United Arab Emirates strengthened minority investor protections by increasing shareholder rights and role in major corporate decisions, clarifying ownership and control structures and requiring greater corporate transparency.

Labor market regulation
The United Arab Emirates reduced the duration of a single fixed-term contract from 48 to 24 month.

Uzbekistan
✔ Registering property
Uzbekistan made transferring a property easier by increasing transparency of information.

✔ Protecting minority investors
Uzbekistan strengthened minority investor protections by clarifying ownership and control structures.

✔ Paying taxes
Uzbekistan made paying taxes less costly by reducing the unified social payment rate paid by employers and the corporate income tax rate. However, the land tax rates in city of Tashkent increased.

Vanuatu
✔ Starting a business
Vanuatu made starting a business easier by removing registration requirements and digitizing the company register.

✔ Getting credit
Vanuatu improved access to credit by passing a law that allows secured creditors to realize their assets without being subject to priorities of other creditors.

✔ Protecting minority investors
Vanuatu strengthened minority investor protections by increasing shareholder rights and role in major corporate decisions and clarifying ownership and control structures.

✔ Resolving insolvency
Vanuatu made resolving insolvency easier by strengthening and modernizing its legal framework in relation to liquidation and receivership proceedings.

Venezuela, RB
✘ Starting a business
República Bolivariana de Venezuela made starting a business more expensive by raising the value of the tributary unit and lawyers’ fees. It also made the process more time consuming by limiting the work schedule of the public sector.

✔ Registering property
Uzbekistan made transferring a property easier by increasing transparency of information.

✔ Protecting minority investors
Uzbekistan strengthened minority investor protections by clarifying ownership and control structures.

✔ Paying taxes
Uzbekistan made paying taxes less costly by reducing the unified social payment rate paid by employers and the corporate income tax rate. However, the land tax rates in city of Tashkent increased.

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✔ Resolving insolvency
Vanuatu made resolving insolvency easier by strengthening and modernizing its legal framework in relation to liquidation and receivership proceedings.

Zambia
✔ Dealing with construction permits
Zambia made dealing with construction permits more costly by raising the costs associated with submitting a brief to the environmental agency.

✔ Registering property
Zambia made it more affordable to transfer property by decreasing the property transfer tax.

Labor market regulation
Zambia eliminated fixed-term contracts for permanent tasks.
Zimbabwe

✔ **Dealing with construction permits**
Zimbabwe made dealing with construction permits faster by streamlining the building plan approval process.

✔ **Registering property**
Zimbabwe made registering property easier by launching an official website containing information on the list of documents and fees for completing a property transaction, as well as, a specific time frame for delivering a legally binding document that proves property ownership.

✔ **Getting credit**
Zimbabwe improved access to credit information by allowing the establishment of a credit registry.

✗ **Trading across borders**
Zimbabwe made trading across borders more difficult by introducing a mandatory pre-shipment inspection for imported products.

**Labor market regulation**
Zimbabwe reduced severance payments and introduced stricter rules governing fixed-term contracts.
<table>
<thead>
<tr>
<th>Country</th>
<th>Starting a business (rank)</th>
<th>DTF score for starting a business (0–100)</th>
<th>Procedures (number)</th>
<th>Time (days)</th>
<th>Cost (% of income per capita)</th>
<th>Minimum capital (% of income per capita)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALBANIA</td>
<td>46</td>
<td>91.73</td>
<td>16</td>
<td>5</td>
<td>10.1</td>
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<tr>
<td></td>
<td>Deal with construction permits (rank)</td>
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<tr>
<td></td>
<td>Getting electricity (rank)</td>
<td>156</td>
<td>48.30</td>
<td>6</td>
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<tr>
<td></td>
<td>Registering property (rank)</td>
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</tbody>
</table>

Note: Most indicator sets refer to a case scenario in the largest business city of an economy, though for 11 economies the data are a population-weighted average for the two largest business cities. For some indicators a result of “no practice” may be recorded for an economy; see the data notes for more details. In starting a business, procedures (number), time (days) and cost (% of income per capita) are calculated as the average of both men and women. For the postfilling index, a result of “not applicable” may be recorded for an economy.
Reform making it easier to do business  Change making it more difficult to do business

ALGERIA

Ease of doing business rank (1–190) 156
Middle East & North Africa

Overall distance to frontier (DTF) score (0–100) 47.76
GNI per capita (US$) 4,870
Population 39,666,519

Starting a business (rank) 142
DTF score for starting a business (0–100) 77.54
Procedures (number) 12
Time (days) 20
Cost (% of income per capita) 11.1
Minimum capital (% of income per capita) 0.0

Dealing with construction permits (rank) 77
DTF score for dealing with construction permits (0–100) 71.10
Procedures (number) 17
Time (days) 130
Cost (% of warehouse value) 0.9
Building quality control index (0–15) 10.0

Getting electricity (rank) 118
DTF score for getting electricity (0–100) 60.58
Procedures (number) 5
Time (days) 180
Cost (% of income per capita) 1,330.4
Reliability of supply and transparency of tariffs index (0–8) 5

Registering property (rank) 162
DTF score for registering property (0–100) 43.83
Procedures (number) 10
Time (days) 55
Cost (% of property value) 7.1
Quality of land administration index (0–30) 7.0

ANGLA

Ease of doing business rank (1–190) 182
Sub-Saharan Africa

Overall distance to frontier (DTF) score (0–100) 38.41
GNI per capita (US$) 4,180
Population 25,021,974

Starting a business (rank) 144
DTF score for starting a business (0–100) 77.34
Procedures (number) 8
Time (days) 36
Cost (% of income per capita) 27.5
Minimum capital (% of income per capita) 0.0

Dealing with construction permits (rank) 111
DTF score for dealing with construction permits (0–100) 66.51
Procedures (number) 10
Time (days) 203
Cost (% of warehouse value) 0.6
Building quality control index (0–15) 6.0

Getting electricity (rank) 171
DTF score for getting electricity (0–100) 40.84
Procedures (number) 7
Time (days) 145
Cost (% of income per capita) 1,195.7
Reliability of supply and transparency of tariffs index (0–8) 0

Registering property (rank) 170
DTF score for registering property (0–100) 40.64
Procedures (number) 7
Time (days) 190
Cost (% of property value) 3.0
Quality of land administration index (0–30) 7.0

ANTIGUA AND BARBUDA

Ease of doing business rank (1–190) 113
Latin America & Caribbean

Overall distance to frontier (DTF) score (0–100) 58.04
GNI per capita (US$) 13,390
Population 91,818

Starting a business (rank) 124
DTF score for starting a business (0–100) 81.66
Procedures (number) 9
Time (days) 22
Cost (% of income per capita) 9.4
Minimum capital (% of income per capita) 0.0

Dealing with construction permits (rank) 107
DTF score for dealing with construction permits (0–100) 67.41
Procedures (number) 16
Time (days) 110
Cost (% of warehouse value) 0.4
Building quality control index (0–15) 6.0

Getting electricity (rank) 35
DTF score for getting electricity (0–100) 83.49
Procedures (number) 4
Time (days) 42
Cost (% of income per capita) 117.6
Reliability of supply and transparency of tariffs index (0–8) 5

Registering property (rank) 150
DTF score for registering property (0–100) 47.51
Procedures (number) 7
Time (days) 108
Cost (% of property value) 13.6
Quality of land administration index (0–30) 19.0

Additional note: Most indicator sets refer to a case scenario in the largest business city of an economy, though for 11 economies the data are a population-weighted average for the two largest business cities. For some indicators a result of “no practice” may be recorded for an economy; see the data notes for more details. In starting a business, procedures (number), time (days) and cost (% of income per capita) are calculated as the average of both men and women. For the postfiling index, a result of “not applicable” may be recorded for an economy.
<table>
<thead>
<tr>
<th>Country</th>
<th>Ease of doing business rank (1–190)</th>
<th>GNI per capita (US$)</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARGENTINA</td>
<td>116</td>
<td>60,076</td>
<td>43,416,755</td>
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<tr>
<td>ARMENIA</td>
<td>38</td>
<td>65,676</td>
<td>3,017,712</td>
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<tr>
<td>AUSTRALIA</td>
<td>15</td>
<td>70,076</td>
<td>23,781,169</td>
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</table>

**Getting credit**

<table>
<thead>
<tr>
<th>DTF score for getting credit (0–100)</th>
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<th>69.71</th>
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<tbody>
<tr>
<td>Extent of disclosure index (0–10)</td>
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<tr>
<td>Credit bureau coverage (% of adults)</td>
<td>100.0</td>
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<td>100.0</td>
</tr>
<tr>
<td>Credit registry coverage (% of adults)</td>
<td>41.6</td>
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<td>41.6</td>
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**Dealing with construction permits**

<table>
<thead>
<tr>
<th>DTF score for dealing with construction permits (0–100)</th>
<th>50.00</th>
<th>69.68</th>
<th>69.71</th>
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<tr>
<td>Time (days)</td>
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<tr>
<td>Cost (% of warehouse value)</td>
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<tr>
<td>Building quality control index (0–15)</td>
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**Getting electricity**

<table>
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<tr>
<th>DTF score for getting electricity (0–100)</th>
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<tr>
<td>Time (days)</td>
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<tr>
<td>Cost (% of income per capita)</td>
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<tr>
<td>Minimum capital (% of income per capita)</td>
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</tbody>
</table>

**Registering property**

<table>
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<tr>
<th>DTF score for registering property (0–100)</th>
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<tbody>
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<td>Procedures (number)</td>
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</tr>
<tr>
<td>Time (days)</td>
<td>51.5</td>
<td>51.5</td>
<td>51.5</td>
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<tr>
<td>Cost (% of property value)</td>
<td>0.6</td>
<td>0.6</td>
<td>0.6</td>
</tr>
<tr>
<td>Quality of land administration index (0–30)</td>
<td>13.0</td>
<td>13.0</td>
<td>13.0</td>
</tr>
</tbody>
</table>

**PROGRESS IN ENFORCING THE LAW**

- **Trading across borders**
  - **DTF score for trading across borders (0–100)**: 65.36
  - **Time to export**: 65.36
  - **Documentary compliance (hours)**: 30
  - **Border compliance (hours)**: 21
  - **Documentary compliance (US$)**: 60
  - **Border compliance (US$)**: 150

- **Enforcing contracts**
  - **DTF score for enforcing contracts (0–100)**: 64.81
  - **Time (days)**: 64.81
  - **Cost (% of claim)**: 22.5
  - **Quality of judicial processes index (0–18)**: 11.5

- **Resolving insolvency**
  - **DTF score for resolving insolvency (0–100)**: 41.87
  - **Time (years)**: 41.87
  - **Cost (% of estate)**: 14.5
  - **Recovery rate (cents on the dollar)**: 22.6
  - **Strength of insolvency framework index (0–16)**: 9.5

Note: Most indicator set refers to a case scenario in the largest business city of an economy, though for 11 economies the data are a population-weighted average for the two largest business cities. For some indicators a result of “no practice” may be recorded for an economy; see the data notes for more details. In starting a business, procedures (number), time (days) and cost (% of income per capita) are calculated as the average of both men and women. For the posting index, a result of “not applicable” may be recorded for an economy.
AUSTRIA
OECD high income
GNI per capita (US$)
Population
Overall distance to frontier (DTF) score (0–100) 78.92
47,120
5,8,11,088
Easing doing business rank (1–190) 19
Getting credit (rank) 62
DTF score for getting credit (0–100) 60.00
Start a business (rank) 17
Strength of legal rights index (0–12) 5
Paying taxes (rank) 82
Depth of credit information index (0–8) 7
DTF score for paying taxes (0–100) 83.39
Cost (% of income per capita) 0.3
Payments (number per year) 12
Building quality control index (0–15) 13.0
Tax hours (per year) 131
Overall distance to frontier (DTF) score (0–100) 78.92
Quality of land administration index (0–30) 23.0
Paying taxes (rank) 82
Posting loss index (0–100) 98.45
Azerbaijan
Europe & Central Asia
OECD high income
GNI per capita (US$)
Population
Overall distance to frontier (DTF) score (0–100) 67.99
6,560
9,651,349
Easing doing business rank (1–190) 65
Getting credit (rank) 118
DTF score for getting credit (0–100) 40.00
Paying taxes (rank) 40
DTF score for paying taxes (0–100) 83.52
Procedures (number) 7
Payments (number per year) 12
Time (hours per year) 195
Tax rate (% of profit) 3.91
Amerca, The
Latin America & Caribbean
OECD high income
GNI per capita (US$)
Population
Overall distance to frontier (DTF) score (0–100) 56.65
21,310
388,019
Easing doing business rank (1–190) 121
Getting credit (rank) 139
DTF score for getting credit (0–100) 30.00
Paying taxes (rank) 95
DTF score for paying taxes (0–100) 71.39
Payment (number per year) 31
Time (hours per year) 233
Total tax rate (% of profit) 31.8
Post loss index (0–100) NOT APPLICABLE
Note: Most indicator sets refer to a case scenario in the largest business city of an economy, though for 11 economies the data are a population-weighted average for the two largest business cities. For some indicators a result of “no practice” may be recorded for an economy; see the data notes for more details. In starting a business, procedures (number), time (days) and cost (% of income per capita) are calculated as the average of both men and women. For the posting loss index, a result of “not applicable” may be recorded for an economy.

REFORM: Making it easier to do business
CHANGE: Making it more difficult to do business
## DOING BUSINESS 2017

**Middle East & North Africa**

<table>
<thead>
<tr>
<th>Ease of doing business rank (1–190)</th>
<th>63</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall distance to frontier (DTF) score (0–100)</td>
<td>68.44</td>
</tr>
<tr>
<td>GNI per capita (US$)</td>
<td>20,350</td>
</tr>
<tr>
<td>Population</td>
<td>1,377,237</td>
</tr>
</tbody>
</table>

- **Starting a business (rank)**: 73
  - DTF score for starting a business (0–100): 87.82
  - Procedures (number): 7.5
  - Time (days): 9.5
  - Cost (% of income per capita): 1.2
  - Minimum capital (% of income per capita): 3.4

- **Getting credit (rank)**: 101
  - DTF score for getting credit (0–100): 45.00
  - Strength of legal rights index (0–12): 1
  - Depth of credit information index (0–8): 8
  - Credit bureau coverage (% of adults): 25.7
  - Credit registry coverage (% of adults): 0.0

- **Protection of minority investors (rank)**: 106
  - DTF score for protecting minority investors (0–100): 50.00
  - Extent of disclosure index (0–10): 8
  - Extent of director liability index (0–10): 4
  - Ease of shareholder suits index (0–10): 4
  - Extent of ownership and control index (0–10): 4
  - Extent of corporate transparency index (0–10): 4

- **Taxing (rank)**: 4
  - DTF score for paying taxes (0–100): 94.44
  - Payments (number per year): 13
  - Time (hours per year): 27
  - Total tax rate (% of profit): 13.5
  - Postfiling index (0–100): NOT APPLICABLE

### BAHRAIN

- **Ease of doing business rank (1–190)**: 122
- **Overall distance to frontier (DTF) score (0–100)**: 81.07
- **GNI per capita (US$)**: 160,995,642

### BANGLADESH

- **Ease of doing business rank (1–190)**: 176
- **Overall distance to frontier (DTF) score (0–100)**: 40.84
- **GNI per capita (US$)**: 1,190

### BARBADOS

- **Ease of doing business rank (1–190)**: 117
- **Overall distance to frontier (DTF) score (0–100)**: 57.42
- **GNI per capita (US$)**: 14,800

- **Starting a business (rank)**: 101
  - DTF score for starting a business (0–100): 85.10
  - Procedures (number): 9.5
  - Time (days): 15
  - Cost (% of income per capita): 7.7
  - Minimum capital (% of income per capita): 0.0

- **Getting credit (rank)**: 157
  - DTF score for getting credit (0–100): 25.00
  - Strength of legal rights index (0–12): 5
  - Depth of credit information index (0–8): 0
  - Credit bureau coverage (% of adults): 0.0
  - Credit registry coverage (% of adults): 0.9

- **Protection of minority investors (rank)**: 70
  - DTF score for protecting minority investors (0–100): 56.67
  - Extent of disclosure index (0–10): 6
  - Extent of director liability index (0–10): 7
  - Ease of shareholder suits index (0–10): 6
  - Extent of ownership and control index (0–10): 5
  - Extent of corporate transparency index (0–10): 6

- **Taxing (rank)**: 151
  - DTF score for paying taxes (0–100): 55.56
  - Payments (number per year): 33
  - Time (hours per year): 435
  - Total tax rate (% of profit): 34.4
  - Postfiling index (0–100): 43.57

---

Note: Most indicator sets refer to a case scenario in the largest business city of an economy, though for 11 economies the data are a population-weighted average for the largest two business cities. For some indicators a result of “no practice” may be recorded for an economy; see the data notes for more details. In starting a business, procedures (number), time (days) and cost (% of income per capita) are calculated as the average of both men and women. For the postfiling index, a result of “not applicable” may be recorded for an economy.
### Europe & Central Asia

#### GNI per capita (US$)

<table>
<thead>
<tr>
<th>Country</th>
<th>GNI per capita (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany</td>
<td>54,430</td>
</tr>
<tr>
<td>France</td>
<td>44,360</td>
</tr>
<tr>
<td>Switzerland</td>
<td>43,980</td>
</tr>
</tbody>
</table>

#### Overall distance to frontier (DTF score on 100)

<table>
<thead>
<tr>
<th>Country</th>
<th>Overall distance (rank)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany</td>
<td>13</td>
</tr>
<tr>
<td>France</td>
<td>28</td>
</tr>
<tr>
<td>Switzerland</td>
<td>31</td>
</tr>
</tbody>
</table>

#### Average of both men and women

- For the postfiling index, a result of “not applicable” may be recorded for an economy.
- In starting a business, procedures (number), time (days) and cost (% of income per capita) are calculated as the average of both men and women.

### Latin America & Caribbean

#### GNI per capita (US$)

<table>
<thead>
<tr>
<th>Country</th>
<th>GNI per capita (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latin America</td>
<td>4,420</td>
</tr>
<tr>
<td>Caribbean</td>
<td></td>
</tr>
</tbody>
</table>

#### Overall distance to frontier (DTF score on 100)

<table>
<thead>
<tr>
<th>Country</th>
<th>Overall distance (rank)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latin America</td>
<td>100</td>
</tr>
<tr>
<td>Caribbean</td>
<td>100</td>
</tr>
</tbody>
</table>

### Country Tables

#### Belgium

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Starting a business (rank)</td>
<td>17</td>
</tr>
<tr>
<td>Trading across borders (rank)</td>
<td>1</td>
</tr>
</tbody>
</table>

#### Costa Rica

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Starting a business (rank)</td>
<td>112</td>
</tr>
<tr>
<td>Trading across borders (rank)</td>
<td>101</td>
</tr>
</tbody>
</table>

#### Dominican Republic

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Starting a business (rank)</td>
<td>37</td>
</tr>
<tr>
<td>Trading across borders (rank)</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Others

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Starting a business (rank)</td>
<td>31</td>
</tr>
<tr>
<td>Trading across borders (rank)</td>
<td>30</td>
</tr>
</tbody>
</table>

### Note

- Reform making it easier to do business
- Change making it more difficult to do business
- All data points are as of the latest available data.
- The tables include indicators such as “Getting credit,” “Paying taxes,” and “Enforcing contracts,” among others.
## Start a business

<table>
<thead>
<tr>
<th>Country</th>
<th>Ease of doing business rank (1–190)</th>
<th>Overall distance to frontier (DFI score)</th>
<th>GNI per capita (US$)</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>BENIN</td>
<td>155</td>
<td>48.52</td>
<td>860</td>
<td>10,079,829</td>
</tr>
<tr>
<td>BHUTAN</td>
<td>73</td>
<td>65.37</td>
<td>2,370</td>
<td>774,830</td>
</tr>
<tr>
<td>BOLIVIA</td>
<td>149</td>
<td>49.85</td>
<td>3,080</td>
<td>10,724,705</td>
</tr>
</tbody>
</table>

### Dealing with construction permits

- **Starting a business (rank)**: 57
- **DFI score for starting a business (0–100)**: 90.96
- **Registering property (rank)**: 173
- **DFI score for registering property (0–100)**: 39.96

### Registering property

- **Time (years)**: 4.0
- **Cost (% of income per capita)**: 525.4
- **Credit registry coverage (% of adults)**: 26.0
- **Border compliance (US$)**: 315

### Getting electricity

- **Time (days)**: 85
- **Cost (% of income per capita)**: 2,470
- **Quality of water services index (0–100)**: 7.0
- **Quality of education index (0–100)**: 7.0

### Enforcing contracts

- **Time (days)**: 40
- **Cost (% of claim)**: 23.1
- **Quality of judicial processes index (0–18)**: 6.0
- **Quality of judicial processes index (0–18)**: 6.0

### Trading across borders

- **Time (days)**: 591
- **Cost (% of income per capita)**: 33.2
- **Quality of judicial processes index (0–18)**: 5.5
- **Quality of judicial processes index (0–18)**: 5.5

### Resolving insolvency

- **Time (days)**: 96
- **Quality of judicial processes index (0–18)**: 26.0
- **Quality of judicial processes index (0–18)**: 48.0

### Credit

- **Time (days)**: 105
- **Cost (% of income per capita)**: 23.1
- **Quality of judicial processes index (0–18)**: 6.0
- **Quality of judicial processes index (0–18)**: 6.0
### BOSNIA AND HERZEGOVINA

Starting a business (

<table>
<thead>
<tr>
<th>Year</th>
<th>DTF score (rank)</th>
<th>Procedures (number)</th>
<th>Time (days)</th>
<th>Cost (% of income per capita)</th>
<th>Minimum capital (% of income per capita)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2022</td>
<td>71</td>
<td>8</td>
<td>12</td>
<td>65</td>
<td>13.5</td>
</tr>
</tbody>
</table>

Dealing with construction permits (rank) 170

<table>
<thead>
<tr>
<th>Year</th>
<th>DTF score for dealing with construction permits (rank)</th>
<th>Procedures (number)</th>
<th>Time (days)</th>
<th>Cost (% of household value)</th>
<th>Building quality control index (0–15)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2022</td>
<td>52.54</td>
<td>15</td>
<td>179</td>
<td>18.5</td>
<td>13.0</td>
</tr>
</tbody>
</table>

Registering property (rank) 99

<table>
<thead>
<tr>
<th>Year</th>
<th>DTF score for registering property (rank)</th>
<th>Procedures (number)</th>
<th>Time (days)</th>
<th>Cost (% of property value)</th>
<th>Quality of land administration index (0–30)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2022</td>
<td>61.54</td>
<td>8</td>
<td>24</td>
<td>40.2</td>
<td>12.5</td>
</tr>
</tbody>
</table>

### BOTSWANA

Starting a business (rank) 71

<table>
<thead>
<tr>
<th>Year</th>
<th>DTF score for starting a business (rank)</th>
<th>Procedures (number)</th>
<th>Time (days)</th>
<th>Cost (% of income per capita)</th>
<th>Minimum capital (% of income per capita)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2022</td>
<td>76.21</td>
<td>9</td>
<td>48</td>
<td>24</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Dealing with construction permits (rank) 50

<table>
<thead>
<tr>
<th>Year</th>
<th>DTF score for dealing with construction permits (rank)</th>
<th>Procedures (number)</th>
<th>Time (days)</th>
<th>Cost (% of warehouse value)</th>
<th>Building quality control index (0–15)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2022</td>
<td>74.81</td>
<td>17</td>
<td>100</td>
<td>0.3</td>
<td>10.5</td>
</tr>
</tbody>
</table>

Registering property (rank) 70

<table>
<thead>
<tr>
<th>Year</th>
<th>DTF score for registering property (rank)</th>
<th>Procedures (number)</th>
<th>Time (days)</th>
<th>Cost (% of property value)</th>
<th>Quality of land administration index (0–30)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2022</td>
<td>67.27</td>
<td>4</td>
<td>12</td>
<td>6.4</td>
<td>10.0</td>
</tr>
</tbody>
</table>

### BRAZIL

Starting a business (rank) 175

<table>
<thead>
<tr>
<th>Year</th>
<th>DTF score for starting a business (rank)</th>
<th>Procedures (number)</th>
<th>Time (days)</th>
<th>Cost (% of income per capita)</th>
<th>Minimum capital (% of income per capita)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2022</td>
<td>65.04</td>
<td>12</td>
<td>79.5</td>
<td>5.2</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Dealing with construction permits (rank) 172

<table>
<thead>
<tr>
<th>Year</th>
<th>DTF score for dealing with construction permits (rank)</th>
<th>Procedures (number)</th>
<th>Time (days)</th>
<th>Cost (% of warehouse value)</th>
<th>Building quality control index (0–15)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2022</td>
<td>51.28</td>
<td>18.2</td>
<td>425.7</td>
<td>0.4</td>
<td>9.0</td>
</tr>
</tbody>
</table>

Registering property (rank) 128

<table>
<thead>
<tr>
<th>Year</th>
<th>DTF score for registering property (rank)</th>
<th>Procedures (number)</th>
<th>Time (days)</th>
<th>Cost (% of property value)</th>
<th>Quality of land administration index (0–30)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2022</td>
<td>52.62</td>
<td>13.6</td>
<td>31.4</td>
<td>15.8</td>
<td>13.0</td>
</tr>
</tbody>
</table>

### COUNTRY TABLES

Europe & Central Asia

<table>
<thead>
<tr>
<th>Country</th>
<th>GNI per capita (US$)</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europe &amp; Central Asia</td>
<td>6,510</td>
<td>2,262,485</td>
</tr>
</tbody>
</table>

Latin America & Caribbean

<table>
<thead>
<tr>
<th>Country</th>
<th>GNI per capita (US$)</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latin America &amp; Caribbean</td>
<td>9,855</td>
<td>207,847,528</td>
</tr>
</tbody>
</table>

Note: Most indicator sets refer to a case scenario in the largest business city of an economy, though for 11 economies the data are a population-weighted average for the two largest business cities. For some indicators a result of “no practice” may be recorded for an economy; see the data notes for more details. In starting a business, procedures (number), time (days) and cost (% of income per capita) are calculated as the average of both men and women. For the posfilling index, a result of “not applicable” may be recorded for an economy.
<table>
<thead>
<tr>
<th>Country</th>
<th>East Asia &amp; Pacific</th>
<th>GNI per capita (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRUNELI DARISSALAM</td>
<td>Ease of doing business rank (1–190) 72</td>
<td>Overall distance to frontier (DTF) score (0–100) 65.51</td>
</tr>
</tbody>
</table>

- **Getting credit** (rank) 62
  - DTF score for getting credit (0–100) 60.00
  - Strength of legal rights index (0–12) 5
  - Depth of credit information index (0–8) 7
  - Credit bureau coverage (% of adults) 0.0
  - Credit registry coverage (% of adults) 61.8

- **Trading across borders** (rank) 142
  - DTF score for trading across borders (0–100) 57.69
  - Time to export
  - Documentary compliance (hours) 163
  - Border compliance (hours) 117
  - Cost to export
  - Documentary compliance (US$) 90
  - Border compliance (US$) 340
  - Time to import
  - Documentary compliance (hours) 140
  - Border compliance (hours) 48
  - Cost to import
  - Documentary compliance (US$) 50
  - Border compliance (US$) 395

- **Enforcing contracts** (rank) 93
  - DTF score for enforcing contracts (0–100) 57.25
  - Time (days) 540
  - Cost (% of claim) 36.6
  - Recovery rate (cents on the dollar) 41.2
  - Quality of judicial processes index (0–18) 8.5

- **Resolving insolvency** (rank) 57
  - DTF score for resolving insolvency (0–100) 55.11
  - Time (years) 2.5
  - Cost (% of estate) 3.5
  - Recovery rate (cents on the dollar) 41.2
  - Strength of insolvency framework index (0–16) 9.5

| BULGARIA | Ease of doing business rank (1–190) 39 | Overall distance to frontier (DTF) score (0–100) 73.51 |

- **Getting credit** (rank) 72
  - DTF score for getting credit (0–100) 70.00
  - Strength of legal rights index (0–12) 9
  - Depth of credit information index (0–8) 5
  - Credit bureau coverage (% of adults) 0.0
  - Credit registry coverage (% of adults) 66.9

- **Trading across borders** (rank) 21
  - DTF score for trading across borders (0–100) 97.41
  - Time to export
  - Documentary compliance (hours) 183
  - Border compliance (hours) 4
  - Cost to export
  - Documentary compliance (US$) 52
  - Border compliance (US$) 55
  - Time to import
  - Documentary compliance (hours) 1
  - Border compliance (hours) 1
  - Cost to import
  - Documentary compliance (US$) 0
  - Border compliance (US$) 0

- **Enforcing contracts** (rank) 49
  - DTF score for enforcing contracts (0–100) 65.09
  - Time (days) 564
  - Cost (% of claim) 23.8
  - Quality of judicial processes index (0–18) 10.5

- **Resolving insolvency** (rank) 48
  - DTF score for resolving insolvency (0–100) 59.38
  - Time (years) 3.3
  - Cost (% of estate) 9.0
  - Recovery rate (cents on the dollar) 34.9
  - Strength of insolvency framework index (0–16) 13.0

| BURKINA FASO | Ease of doing business rank (1–190) 146 | Overall distance to frontier (DTF) score (0–100) 51.33 |

- **Getting credit** (rank) 139
  - DTF score for getting credit (0–100) 30.00
  - Strength of legal rights index (0–12) 6
  - Depth of credit information index (0–8) 0
  - Credit bureau coverage (% of adults) 0.0
  - Credit registry coverage (% of adults) 0.3

- **Trading across borders** (rank) 104
  - DTF score for trading across borders (0–100) 66.58
  - Time to export
  - Documentary compliance (hours) 84
  - Border compliance (hours) 75
  - Cost to export
  - Documentary compliance (US$) 86
  - Border compliance (US$) 261
  - Time to import
  - Documentary compliance (hours) 96
  - Border compliance (hours) 102
  - Cost to import
  - Documentary compliance (US$) 197
  - Border compliance (US$) 265

- **Enforcing contracts** (rank) 161
  - DTF score for enforcing contracts (0–100) 41.05
  - Time (days) 446
  - Cost (% of claim) 81.1
  - Recovery rate (cents on the dollar) 34.9
  - Quality of judicial processes index (0–18) 7.5

- **Resolving insolvency** (rank) 112
  - DTF score for resolving insolvency (0–100) 39.25
  - Time (years) 4.0
  - Cost (% of estate) 21.0
  - Recovery rate (cents on the dollar) 26.7
  - Strength of insolvency framework index (0–16) 9.0

---

Note: Most indicator sets refer to a case scenario in the largest business city of an economy, though for 11 economies the data are a population-weighted average for the two largest business cities. For some indicators a result of “no practice” may be recorded for an economy; see the data notes for more details. In starting a business, procedures (number), time (days) and cost (% of income per capita) are calculated as the average of both men and women. For the posting index, a result of “not applicable” may be recorded for an economy.
<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>Sub-Saharan Africa</th>
<th>East Asia &amp; Pacific</th>
<th>GNI per capita (US$)</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BURUNDI</strong></td>
<td></td>
<td></td>
<td>260</td>
<td>11,778,921</td>
</tr>
<tr>
<td>Ease of doing business rank (1–190)</td>
<td>157</td>
<td>Overall distance to frontier (DTF) score (0–100)</td>
<td>47.37</td>
<td></td>
</tr>
<tr>
<td>Starting a business (rank)</td>
<td>18</td>
<td>DTF score for starting a business (0–100)</td>
<td>94.45</td>
<td></td>
</tr>
<tr>
<td>Procedures (number)</td>
<td>3</td>
<td>Time (days)</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Cost (% of income per capita)</td>
<td>13.9</td>
<td>Minimum capital (% of income per capita)</td>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td>Dealing with construction permits (rank)</td>
<td>169</td>
<td>DTF score of dealing with construction permits (0–100)</td>
<td>52.72</td>
<td></td>
</tr>
<tr>
<td>Procedures (number)</td>
<td>14</td>
<td>Time (days)</td>
<td>99</td>
<td></td>
</tr>
<tr>
<td>Cost (% of warehouse value)</td>
<td>10.4</td>
<td>Building quality control index (0–15)</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>Getting electricity (rank)</td>
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<td>DTF score for getting electricity (0–100)</td>
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<td>Procedures (number)</td>
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<td>Cost (% of property value)</td>
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<td>Registering property (rank)</td>
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<td>DTF score for registering property (0–100)</td>
<td>62.52</td>
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<td>Procedures (number)</td>
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<td>Time (days)</td>
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<td>Cost (% of property value)</td>
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<td><strong>CAMEROON</strong></td>
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<td>Overall distance to frontier (DTF) score (0–100)</td>
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<td>Dealing with construction permits (rank)</td>
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<td>Procedures (number)</td>
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<tr>
<td>Getting electricity (rank)</td>
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<td>Procedures (number)</td>
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<tr>
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<td>Procedures (number)</td>
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<td>Dealing with construction permits (rank)</td>
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<td>Procedures (number)</td>
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<td>Cost (% of warehouse value)</td>
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<td>Building quality control index (0–15)</td>
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<tr>
<td>Getting electricity (rank)</td>
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<td>DTF score for getting electricity (0–100)</td>
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<tr>
<td>Procedures (number)</td>
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<td>Time (days)</td>
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<td>Cost (% of income per capita)</td>
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<td>Reliability of supply and transparency of tariffs index (0–8)</td>
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<td>Registering property (rank)</td>
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<td>Procedures (number)</td>
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<td>56</td>
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<td>Cost (% of property value)</td>
<td>4.3</td>
<td>Quality of land administration index (0–30)</td>
<td>7.5</td>
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</tr>
</tbody>
</table>

Note: Most indicator sets refer to a case scenario in the largest business city of an economy, though for 11 economies the data are a population-weighted average for the two largest business cities. For some indicators a result of “no practice” may be recorded for an economy; see the data notes for more details. In starting a business, procedures (number), time (days) and cost (% of income per capita) are calculated as the average of both men and women. For the postfiling index, a result of “not applicable” may be recorded for an economy.
Dealing with construction permits (rank) 141
DTF score for dealing with construction permits (0–100) 61.38
Procedures (number) 15
Time (days) 135
Cost (% of income per capita) 14.1
Building quality control index (0–15) 13.0

Getting electricity (rank) 99
DTF score for getting electricity (0–100) 70.28
Procedures (number) 4
Time (days) 64
Cost (% of income per capita) 1,509.7
Reliability of supply and transparency of tariffs index (0–8) 3

Registering property (rank) 177
DTF score for registering property (0–100) 37.33
Procedures (number) 5
Time (days) 86
Cost (% of property value) 18.8
Quality of land administration index (0–30) 7.0

CANADA

Ease of doing business rank (1–190) 22
Overall distance to frontier (DTF score (0–100) 78.57

Getting credit (rank) 7
DTF score for getting credit (0–100) 85.00
Strength of legal rights index (0–12) 9
Depth of credit information index (0–8) 8
Credit bureau coverage (% of adults) 100.0
Credit registry coverage (% of adults) 0.0

Protecting minority investors (rank) 7
DTF score for protecting minority investors (0–100) 76.67
Extent of disclosure index (0–10) 8
Extent of director liability index (0–10) 9
Ease of shareholder suits index (0–10) 9
Extent of shareholder rights index (0–10) 6
Extent of ownership and control index (0–10) 8

Trading across borders (rank) 46
DTF score for trading across borders (0–100) 88.36
Time to export
Documentary compliance (hours) 1
Border compliance (hours) 2
Cost to export
Documentary compliance (US$) 156
Border compliance (US$) 167

Enforcing contracts (rank) 112
DTF score for enforcing contracts (0–100) 54.35
Time (days) 910
Cost (% of claim) 22.3
Quality of judicial processes index (0–18) 9.5

Resolving insolvency (rank) 15
DTF score for resolving insolvency (0–100) 81.43
Time (years) 0.8
Cost (% of estate) 7.0
Recovery rate (cents on the dollar) 87.4
Strength of insolvency framework index (0–16) 11.0

CENRAL AFRICAN REPUBLIC

Ease of doing business rank (1–190) 185
Overall distance to frontier (DTF score (0–100) 36.25

Getting credit (rank) 139
DTF score for getting credit (0–100) 30.00
Strength of legal rights index (0–12) 10
Depth of credit information index (0–8) 0
Credit bureau coverage (% of adults) 0.0
Credit registry coverage (% of adults) 3.1

Protecting minority investors (rank) 145
DTF score for protecting minority investors (0–100) 40.00
Extent of disclosure index (0–10) 7
Extent of director liability index (0–10) 1
Ease of shareholder suits index (0–10) 5
Extent of shareholder rights index (0–10) 5
Extent of ownership and control index (0–10) 4

Trading across borders (rank) 138
DTF score for trading across borders (0–100) 58.64
Time to export
Documentary compliance (hours) 48
Border compliance (hours) 141
Cost to export
Documentary compliance (US$) 60
Border compliance (US$) 280

Enforcing contracts (rank) 182
DTF score for enforcing contracts (0–100) 30.46
Time (days) 660
Cost (% of claim) 82.0
Quality of judicial processes index (0–18) 5.0

Resolving insolvency (rank) 146
DTF score for resolving insolvency (0–100) 28.13
Time (years) 4.8
Cost (% of estate) 76.0
Recovery rate (cents on the dollar) 0.0
Strength of insolvency framework index (0–16) 9.0

Note: Most indicator sets refer to a case scenario in the largest business city of an economy, though for 11 economies the data are a population-weighted average for the two largest business cities. For some indicators a result of “no practice” may be recorded for an economy; see the data notes for more details. In starting a business, procedures (number), time (days) and cost (% of income per capita) are calculated as the average of both men and women. For the posilling index, a result of “not applicable” may be recorded for an economy.
<table>
<thead>
<tr>
<th>COUNTRY TABLES</th>
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<table>
<thead>
<tr>
<th>CHAD</th>
<th>Sub-Saharan Africa</th>
<th>GNI per capita (US$)</th>
<th>Population</th>
</tr>
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<tr>
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<td>Overall distance to frontier (DTF) score (0–100)</td>
<td>39.07</td>
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</tbody>
</table>

- **Starting a business** (rank) 182
  - DTF score for starting a business (0–100) 51.91
  - Procedures (number) 9
  -Time (days) 60
  - Cost (% of income per capita) 159.8
  - Minimum capital (% of income per capita) 22.4

- **Dealing with construction permits** (rank) 133
  - DTF score for dealing with construction permits (0–100) 62.00
  - Procedures (number) 13
  - Time (days) 221
  - Cost (% of warehouse value) 8.1
  - Building quality control index (0–15) 11.5

- **Getting electricity** (rank) 179
  - DTF score for getting electricity (0–100) 32.17
  - Procedures (number) 6
  - Time (days) 67
  - Cost (% of property value) 8.52
  - Reliability of supply and transparency of tariffs index (0–8) 0

- **Registering property** (rank) 157
  - DTF score for registering property (0–100) 44.74
  - Procedures (number) 6
  - Time (days) 44
  - Cost (% of property value) 12.8
  - Quality of land administration index (0–30) 8.0

<table>
<thead>
<tr>
<th>CHILE</th>
<th>OECD high income</th>
<th>GNI per capita (US$)</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ease of doing business rank (1–190)</td>
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<td>Overall distance to frontier (DTF) score (0–100)</td>
<td>69.56</td>
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</tbody>
</table>

- **Starting a business** (rank) 59
  - DTF score for starting a business (0–100) 89.84
  - Procedures (number) 27
  - Time (days) 55
  - Cost (% of income per capita) 0.7
  - Minimum capital (% of income per capita) 0.0

- **Dealing with construction permits** (rank) 26
  - DTF score for dealing with construction permits (0–100) 78.83
  - Procedures (number) 13
  - Time (days) 152
  - Cost (% of warehouse value) 0.6
  - Building quality control index (0–15) 13.0

- **Getting electricity** (rank) 64
  - DTF score for getting electricity (0–100) 78.31
  - Procedures (number) 6
  - Time (days) 43
  - Cost (% of income per capita) 70.5
  - Reliability of supply and transparency of tariffs index (0–8) 6

- **Registering property** (rank) 58
  - DTF score for registering property (0–100) 70.89
  - Procedures (number) 6
  - Time (days) 28.5
  - Cost (% of property value) 1.2
  - Quality of land administration index (0–30) 14.0

<table>
<thead>
<tr>
<th>CHINA</th>
<th>East Asia &amp; Pacific</th>
<th>GNI per capita (US$)</th>
<th>Population</th>
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<td>Overall distance to frontier (DTF) score (0–100)</td>
<td>64.28</td>
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</table>

- **Starting a business** (rank) 127
  - DTF score for starting a business (0–100) 81.02
  - Procedures (number) 16
  - Time (days) 28.9
  - Cost (% of income per capita) 0.7
  - Minimum capital (% of income per capita) 0.0

- **Registering property** (rank) 44
  - DTF score for registering property (0–100) 76.15
  - Procedures (number) 4
  - Time (days) 19.5
  - Cost (% of property value) 3.4
  - Quality of land administration index (0–30) 18.3

Note: Most indicator sets refer to a case scenario in the largest business city of an economy, though for 11 economies the data are a population-weighted average for the two largest business cities. For some indicators a result of “no practice” may be recorded for an economy; see the data notes for more details. In starting a business, procedures (number), time (days) and cost (% of income per capita) are calculated as the average of both men and women. For the postfiling index, a result of “not applicable” may be recorded for an economy.
### Starting a business (rank)
- **COLOMBIA**
  - Ease of doing business rank (1–190): 53
  - DITF score for starting a business (0–100): 89.57
  - Procedures (number): 6
  - Time (days): 11
  - Cost (% of income per capita): 9.7
  - Minimum capital (% of income per capita): 0.0

- **COMOROS**
  - Ease of doing business rank (1–190): 153
  - DITF score for starting a business (0–100): 71.59
  - Procedures (number): 6
  - Time (days): 11
  - Cost (% of income per capita): 10.8

- **CONGO, DEM. REP.**
  - Ease of doing business rank (1–190): 184
  - DITF score for starting a business (0–100): 74.61
  - Procedures (number): 7
  - Time (days): 13
  - Cost (% of income per capita): 11.5

### Dealing with construction permits (rank)
- **COLOMBIA**
  - DITF score for dealing with construction permits (0–100): 76.54
  - Procedures (number): 10
  - Time (days): 73
  - Cost (% of warehouse value): 13.7
  - Building quality control index (0–15): 10.0

- **COMOROS**
  - DITF score for dealing with construction permits (0–100): 68.88
  - Procedures (number): 10
  - Time (days): 108
  - Cost (% of warehouse value): 15.5
  - Building quality control index (0–15): 4.0

- **CONGO, DEM. REP.**
  - DITF score for dealing with construction permits (0–100): 63.89
  - Procedures (number): 12
  - Time (days): 122
  - Cost (% of warehouse value): 6.2
  - Building quality control index (0–15): 7.5

### Getting electricity (rank)
- **COLOMBIA**
  - DITF score for getting electricity (0–100): 73.73
  - Procedures (number): 5
  - Time (days): 109
  - Cost (% of income per capita): 58.4
  - Reliability of supply and transparency of tariffs index (0–8): 6.0

- **COMOROS**
  - DITF score for getting electricity (0–100): 56.35
  - Procedures (number): 3
  - Time (days): 120
  - Cost (% of income per capita): 2,495.0
  - Reliability of supply and transparency of tariffs index (0–8): 0.0

- **CONGO, DEM. REP.**
  - DITF score for getting electricity (0–100): 33.59
  - Procedures (number): 6
  - Time (days): 54
  - Cost (% of income per capita): 15,260.0
  - Reliability of supply and transparency of tariffs index (0–8): 0.0

### Registering property (rank)
- **COLOMBIA**
  - DITF score for registering property (0–100): 73.29
  - Procedures (number): 6
  - Time (days): 16
  - Cost (% of property value): 2.0
  - Quality of land administration index (0–30): 16.5

- **COMOROS**
  - DITF score for registering property (0–100): 63.47
  - Procedures (number): 4
  - Time (days): 30
  - Cost (% of property value): 4.6
  - Quality of land administration index (0–30): 7.0

- **CONGO, DEM. REP.**
  - DITF score for registering property (0–100): 33.59
  - Procedures (number): 6
  - Time (days): 44
  - Cost (% of property value): 11.5
  - Quality of land administration index (0–30): 10.0

### Getting credit (rank)
- **COLOMBIA**
  - DITF score for getting credit (0–100): 40.00
  - Procedures (number): 6
  - Total tax rate (% of profit): 5.5
  - Postfilining index (0–100): 47.48

- **COMOROS**
  - DITF score for getting credit (0–100): 4.00
  - Procedures (number): 6
  - Total tax rate (% of profit): 0.0
  - Postfilining index (0–100): 6.7

- **CONGO, DEM. REP.**
  - DITF score for getting credit (0–100): 33.59
  - Procedures (number): 6
  - Total tax rate (% of profit): 0.0
  - Postfilining index (0–100): 3.5

### Paying taxes (rank)
- **COLOMBIA**
  - DITF score for paying taxes (0–100): 58.81
  - Procedures (number per year): 16
  - Time (hours per year): 239
  - Total tax rate (% of profit): 69.8
  - Postfilining index (0–100): 47.48

- **COMOROS**
  - DITF score for paying taxes (0–100): 48.41
  - Procedures (number per year): 33
  - Time (hours per year): 100
  - Total tax rate (% of profit): 216.5
  - Postfilining index (0–100): 51.53

- **CONGO, DEM. REP.**
  - DITF score for paying taxes (0–100): 40.12
  - Procedures (number per year): 52
  - Time (hours per year): 346
  - Total tax rate (% of profit): 54.6
  - Postfilining index (0–100): 29.97

### Resolving insolvency (rank)
- **COLOMBIA**
  - DITF score for resolving insolvency (0–100): 71.74
  - Time (years): 1.7
  - Cost (% of estate): 4.8
  - Quality of judicial processes index (0–10): 9.0

- **COMOROS**
  - DITF score for resolving insolvency (0–100): 76.51
  - Time (years): 2.0
  - Cost (% of estate): 7.0
  - Quality of judicial processes index (0–10): 10.0

- **CONGO, DEM. REP.**
  - DITF score for resolving insolvency (0–100): 71.74
  - Time (years): 1.7
  - Cost (% of estate): 4.8
  - Quality of judicial processes index (0–10): 9.0

### Enforcing contracts (rank)
- **COLOMBIA**
  - DITF score for enforcing contracts (0–100): 38.42
  - Time (days): 288
  - Cost (% of claim): 49.8
  - Quality of judicial processes index (0–10): 3.0

- **COMOROS**
  - DITF score for enforcing contracts (0–100): 72.05
  - Time (days): 29
  - Cost (% of claim): 8.5
  - Quality of judicial processes index (0–10): 1.0

- **CONGO, DEM. REP.**
  - DITF score for enforcing contracts (0–100): 28.42
  - Time (days): 30
  - Cost (% of claim): 49.8
  - Quality of judicial processes index (0–10): 3.0

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### COSTA RICA

<table>
<thead>
<tr>
<th>Ease of doing business rank (1–190)</th>
<th>62</th>
<th>GNI per capita (US$)</th>
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<td>Overall distance to frontier (DTF score (0–100)</td>
<td>68.50</td>
<td>Population</td>
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### CÔTE D’IVOIRE

<table>
<thead>
<tr>
<th>Ease of doing business rank (1–190)</th>
<th>142</th>
<th>GNI per capita (US$)</th>
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<tr>
<td>Overall distance to frontier (DTF score (0–100)</td>
<td>52.31</td>
<td>Population</td>
<td>22,701,556</td>
</tr>
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</table>

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Starting a business (rank) 95
DIT score for starting a business (0–100) 85.56
Pipelines (number) 8
Time (days) 7
Cost (% of income per capita) 7.3
Minimum capital (% of income per capita) 25.5

Dealing with construction permits (rank) 128
DIT score for dealing with construction permits (0–100) 63.81
Procedures (number) 19
Time (days) 127
Cost (% of warehouse value) 8.3
Building quality control index (0–15) 12.0

Getting electricity (rank) 68
DIT score for getting electricity (0–100) 76.25
Procedures (number) 5
Time (days) 65
Cost (% of income per capita) 303.2
Reliability of supply and transparency of tariffs index (0–8) 5

Registering property (rank) 62
DIT score for registering property (0–100) 69.77
Procedures (number) 5
Time (days) 62
Cost (% of property value) 9
Quality of land administration index (0–30) 22.5

Trading across borders (rank) 1
DIT score for trading across borders (0–100) 100.00
Time (days) 8
Border compliance (hours) 1
Border compliance (hours) 0
Cost to export

Documentary compliance (US$) 0
Border compliance (US$) 0
Border compliance (US$) 0

Enforcing contracts (rank) 7
DIT score for enforcing contracts (0–100) 75.87
Time (days) 572
Cost (% of claim) 16.7
Quality of judicial processes index (0–18) 15.0

Resolving insolvency (rank) 54
DIT score for resolving insolvency (0–100) 55.62
Time (years) 3.1
Cost (% of estate) 14.5
Recovery rate (cents on the dollar) 33.7
Strength of insolvency framework index (0–16) 12.0

Note: Most indicator sets refer to a case scenario in the largest business city of an economy, though for 11 economies the data are a population-weighted average for the two largest business cities. For some indicators a result of “no practice” may be recorded for an economy; see the data notes for more details. In starting a business, procedures (number), time (days) and cost (% of income per capita) are calculated as the average of both men and women. For the postfiling index, a result of “not applicable” may be recorded for an economy.
<table>
<thead>
<tr>
<th>Country</th>
<th>OECD high income</th>
<th>GNI per capita (US$)</th>
<th>Population</th>
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<tbody>
<tr>
<td><strong>DENMARK</strong></td>
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## DOING BUSINESS 2017

### Dominican Republic

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### Ecuador

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### Egypt, Arab Rep.

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### Latin America & Caribbean

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Resolving insolvency indicators a result of “no practice” may be recorded for an economy; see the data notes for more details. In starting a business, procedures (number), time (days) and cost (% of income per capita) are calculated.

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<td>Reliability of supply and transparency of tariffs index (0–8) 5</td>
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<td>Quality of land administration index (0–30) 12.5</td>
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**EQUATORIAL GUINEA**

<table>
<thead>
<tr>
<th>Country</th>
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<td>Depth of credit information index (0–8) 2</td>
</tr>
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<td></td>
<td></td>
<td>Credit registry coverage (% of adults) 9.0</td>
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<td></td>
<td></td>
<td>Ease of shareholder suits index (0–10) 6</td>
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<tr>
<td></td>
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<td>Extent of ownership and control index (0–10) 5</td>
</tr>
<tr>
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<td></td>
<td>Extent of corporate transparency index (0–10) 2</td>
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<td>Paying taxes (rank) 179</td>
<td>DTF score for paying taxes (0–100) 39.25</td>
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<td>Payments (number per year) 46</td>
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<td></td>
<td>Time (hours per year) 492</td>
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<td>Total tax rate (% of profit) 79.4</td>
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<td>Poshilling index (0–100) 83.94</td>
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**ERITREYA**

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<td>Depth of credit information index (0–8) 0</td>
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<td>Credit bureau coverage (% of adults) 0.0</td>
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<td></td>
<td></td>
<td>Credit registry coverage (% of adults) 0.0</td>
</tr>
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<td>DTF score for protecting minority investors (0–100) 35.00</td>
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<td></td>
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<td>Extent of disclosure index (0–10) 3</td>
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<td></td>
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<td></td>
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<td>Extent of ownership and control index (0–10) 3</td>
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<td>Paying taxes (rank) 147</td>
<td>DTF score for paying taxes (0–100) 56.82</td>
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<td>Payments (number per year) 30</td>
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<td></td>
<td></td>
<td>Time (hours per year) 216</td>
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<td></td>
<td></td>
<td>Total tax rate (% of profit) 83.7</td>
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<td>Poshilling index (0–100) 96.79</td>
</tr>
</tbody>
</table>

Note: Most indicator sets refer to a case scenario in the largest business city of an economy, though for 11 economies the data are a population-weighted average for the two largest business cities. For some indicators a result of “no practice” may be recorded for an economy; see the data notes for more details. In starting a business, procedures (number), time (days) and cost (% of income per capita) are calculated as the average of both men and women. For the poshilling index, a result of “not applicable” may be recorded for an economy.
### ESTONIA

<table>
<thead>
<tr>
<th>Ease of doing business rank (1–190)</th>
<th>12</th>
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<tbody>
<tr>
<td>Overall distance to frontier (DTF score (0–100))</td>
<td>81.05</td>
</tr>
<tr>
<td>GNI per capita (US$)</td>
<td>18,480</td>
</tr>
<tr>
<td>Population</td>
<td>1,311,998</td>
</tr>
</tbody>
</table>

#### Starting a business (rank)

- Procedures (number) | 14 |
- Time (days) | 3.5 |
- Cost (% of income per capita) | 1.2 |
- Minimum capital (% of income per capita) | 16.4 |

#### Protecting minority investors (rank)

- Extent of disclosure index | 8 |
- Extent of director liability index | 3 |
- Ease of shareholder suits index | 6 |
- Extent of ownership and control index | 4 |
- Extent of corporate transparency index | 6 |

#### Getting credit (rank)

- DTI score for getting credit | 32 |
- Credit bureau coverage (% of adults) | 35.1 |
- Credit registry coverage (% of adults) | 0.0 |

#### Enforcing contracts (rank)

- DTI score for enforcing contracts (0–100) | 75.16 |
- Cost (% of claim) | 21.3 |
- Quality of judicial processes index (0–18) | 13.5 |

#### Resolving insolvency (rank)

- DTI score for resolving insolvency (0–100) | 65.46 |
- Time (years) | 3.0 |
- Cost (% of estate) | 9.0 |
- Recovery rate (cents on the dollar) | 40.3 |
- Strength of insolvency framework index (0–16) | 14.0 |

Note: Most indicator sets refer to a case scenario in the largest business city of an economy, though for 11 economies the data are a population-weighted average for the two largest business cities. For some indicators a result of “no practice” may be recorded for an economy; see the data notes for more details. In starting a business, procedures (number), time (days) and cost (% of income per capita) are calculated as the average of both men and women. For the postfiling index, a result of “not applicable” may be recorded for an economy.

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### ETHIOPIA

<table>
<thead>
<tr>
<th>Ease of doing business rank (1–190)</th>
<th>159</th>
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<tbody>
<tr>
<td>Overall distance to frontier (DTF score (0–100))</td>
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<td>GNI per capita (US$)</td>
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<td>Population</td>
<td>99,390,750</td>
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</table>

#### Starting a business (rank)

- Procedures (number) | 14 |
- Time (days) | 35 |
- Cost (% of income per capita) | 69.1 |
- Minimum capital (% of income per capita) | 12.15 |

#### Protecting minority investors (rank)

- Extent of disclosure index | 8 |
- Extent of director liability index | 3 |
- Ease of shareholder suits index | 6 |
- Extent of ownership and control index | 4 |
- Extent of corporate transparency index | 4 |

#### Getting credit (rank)

- DTI score for getting credit | 170 |
- Credit bureau coverage (% of adults) | 0.0 |
- Credit registry coverage (% of adults) | 0.2 |

#### Resolving insolvency (rank)

- DTI score for resolving insolvency (0–100) | 37.60 |
- Time (years) | 3.0 |
- Cost (% of estate) | 14.5 |
- Recovery rate (cents on the dollar) | 29.2 |
- Strength of insolvency framework index (0–16) | 7.0 |

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### FIJI

<table>
<thead>
<tr>
<th>Ease of doing business rank (1–190)</th>
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</thead>
<tbody>
<tr>
<td>Overall distance to frontier (DTF score (0–100))</td>
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<tr>
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<tr>
<td>Population</td>
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#### Starting a business (rank)

- Procedures (number) | 11 |
- Time (days) | 40 |
- Cost (% of income per capita) | 17.9 |
- Minimum capital (% of income per capita) | 0.0 |

#### Protecting minority investors (rank)

- Extent of disclosure index | 8 |
- Extent of director liability index | 3 |
- Ease of shareholder suits index | 6 |
- Extent of ownership and control index | 4 |
- Extent of corporate transparency index | 4 |

#### Getting credit (rank)

- DTI score for getting credit | 157 |
- Credit bureau coverage (% of adults) | 0.0 |
- Credit registry coverage (% of adults) | 0.0 |

#### Resolving insolvency (rank)

- DTI score for resolving insolvency (0–100) | 43.75 |
- Time (years) | 1.8 |
- Cost (% of estate) | 10.0 |
- Recovery rate (cents on the dollar) | 46.4 |
- Strength of insolvency framework index (0–16) | 6.0 |

Note: Most indicator sets refer to a case scenario in the largest business city of an economy, though for 11 economies the data are a population-weighted average for the two largest business cities. For some indicators a result of “no practice” may be recorded for an economy; see the data notes for more details. In starting a business, procedures (number), time (days) and cost (% of income per capita) are calculated as the average of both men and women. For the postfiling index, a result of “not applicable” may be recorded for an economy.
<table>
<thead>
<tr>
<th>Country</th>
<th>Ease of doing business rank (1–190)</th>
<th>OECD high income</th>
<th>GNI per capita (US$)</th>
<th>Population</th>
<th>DTF score for dealing with construction permits (0–100)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FINLAND</td>
<td>13</td>
<td>80.84</td>
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<td>5,482,013</td>
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<td>88.97</td>
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<td>88.97</td>
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<td>82.94</td>
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<td>FRANCE</td>
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<td>Dealing with construction permits (rank)</td>
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<td>12.5</td>
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<td>47.05</td>
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<td>37.80</td>
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<td>37.80</td>
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Note: Most indicator sets refer to a case scenario in the largest business city of an economy, though for 11 economies the data are a population-weighted average for the two largest business cities. For some indicators a result of “no practice” may be recorded for an economy; see the data notes for more details. In starting a business, procedures (number), time (days) and cost (% of income per capita) are calculated as the average of both men and women. For the posting index, a result of “not applicable” may be recorded for an economy.
<table>
<thead>
<tr>
<th>GAMBIA, THE</th>
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<td>Depth of credit information index (0–8)</td>
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<td>Credit bureau coverage (of adults)</td>
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<td>Credit registry coverage (of adults)</td>
<td>0.0</td>
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<td>Extent of director liability index (0–10)</td>
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<td>Ease of shareholder suits index (0–10)</td>
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<td>Extent of shareholder rights index (0–10)</td>
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<td>Extent of corporate transparency index (0–10)</td>
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<table>
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<tr>
<td>Extent of ownership and control index (0–10)</td>
<td>8</td>
<td>Extent of corporate transparency index (0–10)</td>
<td>8</td>
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<td>Time (hours per year)</td>
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<tr>
<td>OECD high income</td>
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<td></td>
</tr>
<tr>
<td>Ease of doing business rank (1–190)</td>
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<td>Getting credit (rank)</td>
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<td>Depth of credit information index (0–8)</td>
<td>8</td>
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<tr>
<td>Credit bureau coverage (of adults)</td>
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<td>Credit registry coverage (of adults)</td>
<td>1.9</td>
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<tr>
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<td>DTF score for protecting minority investors (0–100)</td>
<td>60.00</td>
</tr>
<tr>
<td>Extent of disclosure index (0–10)</td>
<td>5</td>
<td>Extent of director liability index (0–10)</td>
<td>5</td>
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<tr>
<td>Ease of shareholder suits index (0–10)</td>
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<td>Extent of shareholder rights index (0–10)</td>
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<td>Extent of ownership and control index (0–10)</td>
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<td>DTF score for paying taxes (0–100)</td>
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</tr>
<tr>
<td>Payments (number per year)</td>
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<td>Time (hours per year)</td>
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<td>DTF score for registering property (0–100)</td>
<td>65.72</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GERMANY</th>
<th>OECD high income</th>
<th>GNI per capita (US$)</th>
<th>45,790</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ease of doing business rank (1–190)</td>
<td>17</td>
<td>Overall distance to frontier (DTF) score (0–100)</td>
<td>79.87</td>
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<tr>
<td>Getting credit (rank)</td>
<td>32</td>
<td>DTF score for getting credit (0–100)</td>
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<td>Extent of disclosure index (0–10)</td>
<td>6</td>
<td>Depth of credit information index (0–8)</td>
<td>8</td>
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<tr>
<td>Credit bureau coverage (of adults)</td>
<td>100.0</td>
<td>Credit registry coverage (of adults)</td>
<td>1.9</td>
</tr>
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<td>Protecting minority investors (rank)</td>
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<td>DTF score for protecting minority investors (0–100)</td>
<td>60.00</td>
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<tr>
<td>Extent of disclosure index (0–10)</td>
<td>5</td>
<td>Extent of director liability index (0–10)</td>
<td>5</td>
</tr>
<tr>
<td>Ease of shareholder suits index (0–10)</td>
<td>5</td>
<td>Extent of shareholder rights index (0–10)</td>
<td>8</td>
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<tr>
<td>Extent of ownership and control index (0–10)</td>
<td>6</td>
<td>Extent of corporate transparency index (0–10)</td>
<td>7</td>
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<tr>
<td>Paying taxes (rank)</td>
<td>48</td>
<td>DTF score for paying taxes (0–100)</td>
<td>82.10</td>
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<tr>
<td>Payments (number per year)</td>
<td>5</td>
<td>Time (hours per year)</td>
<td>218</td>
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<tr>
<td>Total tax rate (% of profit)</td>
<td>48.9</td>
<td>Postfilling index (0–100)</td>
<td>97.45</td>
</tr>
</tbody>
</table>

Note: Most indicator sets refer to a case scenario in the largest business city of an economy, though for 11 economies the data are a population-weighted average for the two largest business cities. For some indicators a result of “no practice” may be recorded for an economy; see the data notes for more details. In starting a business, procedures (number), time (days) and cost (% of income per capita) are calculated as the average of both men and women. For the postfilling index, a result of “not applicable” may be recorded for an economy.
### GHANA

<table>
<thead>
<tr>
<th>Ease of doing business rank (1–190)</th>
<th>Overall distance to frontier (DTF score (0–100))</th>
<th>GNI per capita (US$)</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>108</td>
<td>58.82</td>
<td>1,480</td>
<td>27,409,893</td>
</tr>
</tbody>
</table>

**Starting a business (rank)** 110
- DTF score for starting a business (0–100) 83.73
  - Procedures (number) 8
  - Time (days) 14
  - Cost (% of income per capita) 19.7
  - Minimum capital (% of income per capita) 2.0

**Dealing with construction permits (rank)** 117
- DTF score for dealing with construction permits (0–100) 65.34
  - Procedures (number) 14
  - Time (days) 170
  - Cost (% of warehouse value) 2.9
  - Building quality control index (0–15) 8.0

**Getting electricity (rank)** 120
- DTF score for getting electricity (0–100) 60.30
  - Procedures (number) 4
  - Time (days) 79
  - Cost (% of income per capita) 1,268.6
  - Reliability of supply and transparency of tariffs index (0–8) 0

**Registering property (rank)** 77
- DTF score for registering property (0–100) 65.99
  - Procedures (number) 5
  - Time (days) 46
  - Cost (% of property value) 1.2
  - Quality of land administration index (0–30) 8.0

### GREECE

<table>
<thead>
<tr>
<th>Ease of doing business rank (1–190)</th>
<th>Overall distance to frontier (DTF score (0–100))</th>
<th>GNI per capita (US$)</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>61</td>
<td>68.67</td>
<td>20,290</td>
<td>10,823,732</td>
</tr>
</tbody>
</table>

**Starting a business (rank)** 56
- DTF score for starting a business (0–100) 90.70
  - Procedures (number) 5
  - Time (days) 13
  - Cost (% of income per capita) 2.2
  - Minimum capital (% of income per capita) 0.0

**Dealing with construction permits (rank)** 58
- DTF score for dealing with construction permits (0–100) 73.63
  - Procedures (number) 17
  - Time (days) 124
  - Cost (% of warehouse value) 1.8
  - Building quality control index (0–15) 12.0

**Getting electricity (rank)** 52
- DTF score for getting electricity (0–100) 80.57
  - Procedures (number) 6
  - Time (days) 51
  - Cost (% of income per capita) 69.9
  - Reliability of supply and transparency of tariffs index (0–8) 7

**Registering property (rank)** 141
- DTF score for registering property (0–100) 49.67
  - Procedures (number) 10
  - Time (days) 20
  - Cost (% of property value) 4.8
  - Quality of land administration index (0–30) 4.5

### GRENADA

<table>
<thead>
<tr>
<th>Ease of doing business rank (1–190)</th>
<th>Overall distance to frontier (DTF score (0–100))</th>
<th>GNI per capita (US$)</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>138</td>
<td>53.75</td>
<td>8,430</td>
<td>106,825</td>
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</table>

**Starting a business (rank)** 77
- DTF score for starting a business (0–100) 87.02
  - Procedures (number) 6
  - Time (days) 15
  - Cost (% of income per capita) 15.8
  - Minimum capital (% of income per capita) 0.0

**Dealing with construction permits (rank)** 105
- DTF score for dealing with construction permits (0–100) 67.64
  - Procedures (number) 13
  - Time (days) 128
  - Cost (% of warehouse value) 0.3
  - Building quality control index (0–15) 5.0

**Getting electricity (rank)** 66
- DTF score for getting electricity (0–100) 76.40
  - Procedures (number) 5
  - Time (days) 38
  - Cost (% of income per capita) 191.1
  - Reliability of supply and transparency of tariffs index (0–8) 4

**Registering property (rank)** 137
- DTF score for registering property (0–100) 50.15
  - Procedures (number) 8
  - Time (days) 32
  - Cost (% of property value) 7.4
  - Quality of land administration index (0–30) 7.0

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### Guatemala

**Ease of doing business rank (1–190)**: 88

- **Getting credit (rank)**: 16
  - DTF score for getting credit (0–100): 80.00
  - Strength of legal rights index (0–12): 8
  - Depth of credit information index (0–8): 7
  - Credit bureau coverage (0–100): 10
  - Credit registry coverage (0–100): 10

- **Getting credit (rank)**: 16
  - DTF score for getting credit (0–100): 80.00
  - Strength of legal rights index (0–12): 8
  - Depth of credit information index (0–8): 7
  - Credit bureau coverage (0–100): 10
  - Credit registry coverage (0–100): 10

- **Quality of land administration index (0–30)**: 3.0
- **Strength of insolvency framework index (0–16)**: 0.0
  - Minimum capital (% of income per capita): 0.5
  - Minimum capital (% of property value): 0.5
- **Cost (% of property value)**: 8.5
- **Recovery rate (cents on the dollar)**: 0.0
  - Time (days): 51
- **Cost (% of estate)**: NO PRACTICE

- **Building quality control index (0–15)**: 6.5
- **Extent of shareholder rights index (0–10)**: 5
  - Minimum capital (% of income per capita): 0.5
  - Minimum capital (% of property value): 0.5
- **Quality of land administration index (0–30)**: 3.0

#### Dealing with construction permits (rank) 99

- **DTF score for dealing with construction permits (0–100)**: 69.40
  - Procedures (number): 7
  - Time (days): 113
  - Cost (% of income per capita): 24.1
  - Minimum capital (% of income per capita): 17.2

#### Getting electricity (rank) 19

- **Cost (% of income per capita)**: 88.95
  - Procedures (number): 4
  - Time (days): 24
  - Cost (% of property value): 47.6
  - Reliability of supply and transparency of tariffs index (0–8): 7

#### Registering property (rank) 74

- **DTF score for registering property (0–100)**: 66.47
  - Procedures (number): 6
  - Time (days): 24
  - Cost (% of property value): 3.7
  - Quality of land administration index (0–30): 13.0

### Guinea

**Ease of doing business rank (1–190)**: 163

- **Getting credit (rank)**: 139
  - DTF score for getting credit (0–100): 38.00
  - Strength of legal rights index (0–12): 7
  - Depth of credit information index (0–8): 7
  - Credit bureau coverage (0–100): 10
  - Credit registry coverage (0–100): 10

- **Quality of land administration index (0–30)**: 5.5
- **Strength of insolvency framework index (0–16)**: 9.0
  - Minimum capital (% of income per capita): 13.6
  - Minimum capital (% of property value): 13.6

#### Dealing with construction permits (rank) 164

- **DTF score for dealing with construction permits (0–100)**: 54.26
  - Procedures (number): 27
  - Time (days): 173
  - Cost (% of warehouse value): 1.9
  - Building quality control index (0–15): 8.5

#### Getting electricity (rank) 160

- **DTF score for getting electricity (0–100)**: 44.81
  - Procedures (number): 4
  - Time (days): 69
  - Cost (% of income per capita): 6,636.4
  - Reliability of supply and transparency of tariffs index (0–8): 0

#### Registering property (rank) 140

- **DTF score for registering property (0–100)**: 49.81
  - Procedures (number): 6
  - Time (days): 44
  - Cost (% of property value): 8.5
  - Quality of land administration index (0–30): 5.5

### Guinea-Bissau

**Ease of doing business rank (1–190)**: 172

- **Getting credit (rank)**: 139
  - DTF score for getting credit (0–100): 38.00
  - Strength of legal rights index (0–12): 7
  - Depth of credit information index (0–8): 7
  - Credit bureau coverage (0–100): 10
  - Credit registry coverage (0–100): 10

- **Quality of land administration index (0–30)**: 5.5
- **Strength of insolvency framework index (0–16)**: 9.0
  - Minimum capital (% of income per capita): 13.6
  - Minimum capital (% of property value): 13.6

#### Dealing with construction permits (rank) 155

- **DTF score for dealing with construction permits (0–100)**: 56.55
  - Procedures (number): 11
  - Time (days): 116
  - Cost (% of warehouse value): 13.4
  - Building quality control index (0–15): 6.5

#### Getting electricity (rank) 182

- **DTF score for getting electricity (0–100)**: 28.64
  - Procedures (number): 7
  - Time (days): 455
  - Cost (% of income per capita): 1,519.8
  - Reliability of supply and transparency of tariffs index (0–8): 0

#### Registering property (rank) 149

- **DTF score for registering property (0–100)**: 47.81
  - Procedures (number): 8
  - Time (days): 51
  - Cost (% of property value): 5.5
  - Quality of land administration index (0–30): 3.0

Note: Most indicator sets refer to a case scenario in the largest business city of an economy, though for 71 economies the data are a population-weighted average for the two largest business cities. For some indicators a result of “no practice” may be recorded for an economy; see the data notes for more details. In starting a business, procedures (number), time (days) and cost (% of income per capita) are calculated as the average of both men and women. For the posfilling index, a result of “not applicable” may be recorded for an economy.
<table>
<thead>
<tr>
<th>COUNTRY TABLES</th>
</tr>
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<tbody>
<tr>
<td><strong>GUYANA</strong></td>
</tr>
<tr>
<td>Ease of doing business rank (1–190)</td>
</tr>
<tr>
<td>Starting a business (rank)</td>
</tr>
<tr>
<td>DTF score for starting a business (0–100)</td>
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<tr>
<td>Procedures (number)</td>
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<tr>
<td>Time (days)</td>
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</tr>
<tr>
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<tr>
<td>Building quality control index (0–15)</td>
</tr>
<tr>
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<tr>
<td>Time (days)</td>
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<tr>
<td>Time (days)</td>
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<tr>
<td>Cost (% of income per capita)</td>
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<td>Reliability of supply and transparency of tariffs index (0–8)</td>
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<tr>
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<td>Time (days)</td>
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<tr>
<td>Cost (% of property value)</td>
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<tr>
<td>Quality of land administration index (0–30)</td>
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<td>Honduras</td>
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<td>DTF score for starting a business (0–100)</td>
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<td>Time (days)</td>
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<td>Cost (% of income per capita)</td>
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<tr>
<td>Minimum capital (% of income per capita)</td>
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<tr>
<td>Dealing with construction permits (rank)</td>
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<tr>
<td>Registering property (rank)</td>
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<tr>
<td>DTF score for registering property (0–100)</td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th>Country</th>
<th>Ease of doing business rank (1–190)</th>
<th>Overall distance to frontier (DTF) score (0–100)</th>
<th>GNI per capita (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HONG KONG SAR, CHINA</strong></td>
<td>4</td>
<td>84.21</td>
<td>41,000</td>
</tr>
<tr>
<td><strong>Trading across borders</strong></td>
<td>42</td>
<td>DTF score for trading across borders (0–100)</td>
<td>88.94</td>
</tr>
<tr>
<td><strong>Starting a business</strong></td>
<td>3</td>
<td>DTF score for starting a business (0–100)</td>
<td>98.20</td>
</tr>
<tr>
<td><strong>Dealing with construction permits</strong></td>
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<td>DTF score for dealing with construction permits (0–100)</td>
<td>84.80</td>
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<tr>
<td><strong>Getting electricity</strong></td>
<td>3</td>
<td>DTF score for getting electricity (0–100)</td>
<td>99.02</td>
</tr>
<tr>
<td><strong>Enforcing contracts</strong></td>
<td>21</td>
<td>DTF score for enforcing contracts (0–100)</td>
<td>72.57</td>
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<tr>
<td><strong>Registering property</strong></td>
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<td>DTF score for registering property (0–100)</td>
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<td><strong>HUNGARY</strong></td>
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<td><strong>Starting a business</strong></td>
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<td><strong>Registering property</strong></td>
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<td><strong>ICELAND</strong></td>
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<tr>
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<td><strong>Getting electricity</strong></td>
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<td>DTF score for getting electricity (0–100)</td>
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<tr>
<td><strong>Registering property</strong></td>
<td>15</td>
<td>DTF score for registering property (0–100)</td>
<td>86.61</td>
</tr>
</tbody>
</table>

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## South Asia

<table>
<thead>
<tr>
<th>Country</th>
<th>Ease of doing business rank (1–190)</th>
<th>Overall distance to frontier (DTF) score (0–100)</th>
<th>GNI per capita (US$)</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>130</td>
<td>55.27</td>
<td>1,590</td>
<td>1,311,050,527</td>
</tr>
</tbody>
</table>

### Starting a business (rank)
- **DTF score for starting a business (0–100)**: 74.31
- **Procedures (number)**: 12.9
- **Time (days)**: 26
- **Cost (% of income per capita)**: 13.8
- **Minimum capital (% of income per capita)**: 0.0

### Paying taxes (rank)
- **DTF score for paying taxes (0–100)**: 65.00
- **Procedures (number)**: 6
- **Time (days)**: 6
- **Depth of credit information index (0–8)**: 7
- **Credit bureau coverage (% of adults)**: 21.4
- **Credit registry coverage (% of adults)**: 0.0

### Enforcing contracts (rank)
- **DTF score for enforcing contracts (0–100)**: 23.38
- **Procedures (number)**: 11.2
- **Time (days)**: 241
- **Total tax rate (% of profit)**: 60.6
- **Postfiling index (0–100)**: 4.27

### Getting electricity (rank)
- **DTF score for getting electricity (0–100)**: 86.09
- **Procedures (number)**: 5
- **Time (days)**: 45.9
- **Cost (% of income per capita)**: 13.8
- **Reliability of supply and transparency of tariffs index (0–8)**: 7

### Registering property (rank)
- **DTF score for registering property (0–100)**: 50.00
- **Procedures (number)**: 7
- **Time (days)**: 46.8
- **Cost (% of property value)**: 7.7
- **Quality of land administration index (0–30)**: 7.0

### Registering property (rank)
- **DTF score for registering property (0–100)**: 55.72
- **Procedures (number)**: 5
- **Time (days)**: 27.4
- **Cost (% of property value)**: 10.8
- **Quality of land administration index (0–30)**: 12.3

### Resolving insolvency (rank)
- **DTF score for resolving insolvency (0–100)**: 35.19
- **Time (days)**: 1,420
- **Cost (% of claim)**: 39.6
- **Quality of judicial processes index (0–18)**: 9.0

### Enforcing contracts (rank)
- **DTF score for enforcing contracts (0–100)**: 166
- **Time (days)**: 4.3
- **Cost (% of estate)**: 9.0
- **Recourse rate (cents on the dollar)**: 26.0
- **Strength of insolvency framework index (0–16)**: 6.0

### Resolving insolvency (rank)
- **DTF score for resolving insolvency (0–100)**: 34.40
- **Time (days)**: 200.2
- **Cost (% of estate)**: 21.6
- **Recourse rate (cents on the dollar)**: 31.2
- **Strength of insolvency framework index (0–16)**: 9.5

### Getting credit (rank)
- **DTF score for getting credit (0–100)**: 44
- **Procedures (number)**: 8.5
- **Time (days)**: 155
- **Depth of credit information index (0–8)**: 7
- **Credit bureau coverage (% of adults)**: 50.5
- **Credit registry coverage (% of adults)**: 51.0

### Protecting minority investors (rank)
- **DTF score for protecting minority investors (0–100)**: 70
- **Procedures (number)**: 5
- **Time (days)**: 43
- **Total tax rate (% of profit)**: 30.6
- **Postfiling index (0–100)**: 76.49

### Trading across borders (rank)
- **DTF score for trading across borders (0–100)**: 57.61
- **Time to export**: 38.4
- **Border compliance (hours)**: 106.1
- **Cost to export**: 91.9
- **Border compliance (US$)**: 413.1

### Enforcing contracts (rank)
- **DTF score for enforcing contracts (0–100)**: 213
- **Time (days)**: 7
- **Cost (% of claim)**: 282.3
- **Border compliance (US$)**: 134.8
- **Border compliance (US$)**: 574

### Resolving insolvency (rank)
- **DTF score for resolving insolvency (0–100)**: 25.25
- **Time (days)**: 4.5
- **Cost (% of estate)**: 15.0
- **Recourse rate (cents on the dollar)**: 17.9
- **Strength of insolvency framework index (0–16)**: 5.0

### Note:
Most indicator sets refer to a case scenario in the largest business city of an economy, though for 11 economies the data are a population-weighted average for the two largest business cities. For some indicators a result of "no practice" may be recorded for an economy; see the data notes for more details. In starting a business, procedures (number), time (days) and cost (% of income per capita) are calculated as the average of both men and women. For the postfiling index, a result of “not applicable” may be recorded for an economy.

---

## East Asia & Pacific

<table>
<thead>
<tr>
<th>Country</th>
<th>Ease of doing business rank (1–190)</th>
<th>Overall distance to frontier (DTF) score (0–100)</th>
<th>GNI per capita (US$)</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan</td>
<td>91</td>
<td>61.52</td>
<td>3,440</td>
<td>257,563,815</td>
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### Starting a business (rank)
- **DTF score for starting a business (0–100)**: 76.43
- **Procedures (number)**: 11.2
- **Time (days)**: 249
- **Cost (% of income per capita)**: 19.4
- **Minimum capital (% of income per capita)**: 0.0

### Paying taxes (rank)
- **DTF score for paying taxes (0–100)**: 46.58
- **Procedures (number per year)**: 25
- **Time (hours per year)**: 241
- **Total tax rate (% of profit)**: 60.6
- **Postfiling index (0–100)**: 4.27

### Getting electricity (rank)
- **DTF score for getting electricity (0–100)**: 85.09
- **Procedures (number)**: 5
- **Time (days)**: 45.9
- **Cost (% of income per capita)**: 13.8
- **Reliability of supply and transparency of tariffs index (0–8)**: 7

### Registering property (rank)
- **DTF score for registering property (0–100)**: 91
- **Procedures (number)**: 7
- **Time (days)**: 46.8
- **Cost (% of property value)**: 7.7
- **Quality of land administration index (0–30)**: 7.0

### Resolving insolvency (rank)
- **DTF score for resolving insolvency (0–100)**: 32.75
- **Time (days)**: 4.3
- **Cost (% of estate)**: 9.0
- **Recourse rate (cents on the dollar)**: 26.0
- **Strength of insolvency framework index (0–16)**: 6.0

### Getting credit (rank)
- **DTF score for getting credit (0–100)**: 60.00
- **Procedures (number)**: 6
- **Time (days)**: 6
- **Depth of credit information index (0–8)**: 8
- **Credit bureau coverage (% of adults)**: 0.0
- **Credit registry coverage (% of adults)**: 51.8

### Protecting minority investors (rank)
- **DTF score for protecting minority investors (0–100)**: 56.67
- **Procedures (number)**: 17
- **Time (days)**: 200.2
- **Cost (% of warehouse value)**: 5.1
- **Building quality control index (0–15)**: 13.0

### Paying taxes (rank)
- **DTF score for paying taxes (0–100)**: 69.25
- **Procedures (number per year)**: 43
- **Time (hours per year)**: 221
- **Total tax rate (% of profit)**: 30.6
- **Postfiling index (0–100)**: 76.49

### Trading across borders (rank)
- **DTF score for trading across borders (0–100)**: 65.87
- **Time to export**: 61.3
- **Border compliance (hours)**: 53.3
- **Cost to export**: 138.8
- **Border compliance (US$)**: 257.7

### Enforcing contracts (rank)
- **DTF score for enforcing contracts (0–100)**: 38.15
- **Time (days)**: 471
- **Cost (% of claim)**: 115.7
- **Quality of judicial processes index (0–18)**: 7.8

### Resolving insolvency (rank)
- **DTF score for resolving insolvency (0–100)**: 46.46
- **Time (days)**: 1.9
- **Cost (% of estate)**: 21.6
- **Recourse rate (cents on the dollar)**: 31.2
- **Strength of insolvency framework index (0–16)**: 9.5

### Note:
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Getting credit (rank) 181
   DTF score for getting credit (0–100) 5.00
   Strength of legal rights index (0–12) 1
   Depth of credit information index (0–8) 0
   Credit bureau coverage (% of adults) 0.0
   Credit registry coverage (% of adults) 0.0

Protecting minority investors (rank) 123
   DTF score for protecting minority investors (0–100) 45.00
   Extent of disclosure index (0–10) 4
   Extent of director liability index (0–10) 5
   Ease of shareholder suits index (0–10) 5
   Extent of shareholder rights index (0–10) 8
   Extent of ownership and control index (0–10) 3
   Extent of corporate transparency index (0–10) 2

Pay ing taxes (rank) 52
   DTF score for paying taxes (0–100) 80.86
   Payments (number per year) 16
   Time (hours per year) 312
   Total tax rate (% of profit) 27.8
   Postfiling index (0–100) 84.86

Registering property (rank) 110
   DTF score for registering property (0–100) 56.28
   Procedures (number) 5
   Time (days) 51
   Cost (% of property value) 7.9
   Quality of land administration index (0–30) 10.5

IRLAND

OECD high income

Getting credit (rank) 32
   DTF score for getting credit (0–100) 70.00
   Strength of legal rights index (0–12) 7
   Depth of credit information index (0–8) 7
   Credit bureau coverage (% of adults) 100.0
   Credit registry coverage (% of adults) 0.0

Protecting minority investors (rank) 13
   DTF score for protecting minority investors (0–100) 73.33
   Extent of disclosure index (0–10) 9
   Extent of director liability index (0–10) 8
   Ease of shareholder suits index (0–10) 9
   Extent of shareholder rights index (0–10) 7
   Extent of ownership and control index (0–10) 4
   Extent of corporate transparency index (0–10) 7

Pay ing taxes (rank) 5
   DTF score for paying taxes (0–100) 94.40
   Payments (number per year) 9
   Time (hours per year) 82
   Total tax rate (% of profit) 26.0
   Postfiling index (0–100) 92.70

Registering property (rank) 41
   DTF score for registering property (0–100) 76.28
   Procedures (number) 5
   Time (days) 31.5
   Cost (% of property value) 6.5
   Quality of land administration index (0–30) 21.0

ISRAEL

OECD high income

Getting credit (rank) 44
   DTF score for getting credit (0–100) 65.00
   Strength of legal rights index (0–12) 6
   Depth of credit information index (0–8) 7
   Credit bureau coverage (% of adults) 72.5
   Credit registry coverage (% of adults) 0.0

Protecting minority investors (rank) 9
   DTF score for protecting minority investors (0–100) 75.00
   Extent of disclosure index (0–10) 7
   Extent of director liability index (0–10) 9
   Ease of shareholder suits index (0–10) 9
   Extent of shareholder rights index (0–10) 7
   Extent of ownership and control index (0–10) 4
   Extent of corporate transparency index (0–10) 9

Pay ing taxes (rank) 96
   DTF score for paying taxes (0–100) 71.00
   Payments (number per year) 33
   Time (hours per year) 235
   Total tax rate (% of profit) 28.1
   Postfiling index (0–100) 65.53

Registering property (rank) 126
   DTF score for registering property (0–100) 52.84
   Procedures (number) 6
   Time (days) 81
   Cost (% of property value) 8.3
   Quality of land administration index (0–30) 14.0

Note: Most indicator sets refer to a case scenario in the largest business city of an economy, though for 11 economies the data are a population-weighted average for the two largest business cities. For some indicators a result of “no practice” may be recorded for an economy; see the data notes for more details. In starting a business, procedures (number), time (days) and cost (% of income per capita) are calculated as the average of both men and women. For the postfiling index, a result of “not applicable” may be recorded for an economy.
### COUNTRY TABLES

<table>
<thead>
<tr>
<th>Country</th>
<th>Ease of doing business rank (1–190)</th>
<th>OECD high income</th>
<th>GNI per capita (US$)</th>
<th>Population</th>
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<td>ITALY</td>
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<td>Cost (% of income per capita)</td>
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<td>Reliability of supply and transparency of tariffs index (0–8)</td>
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<th>JAPAN</th>
<th>OECD high income</th>
<th>GNI per capita (US$)</th>
<th>Population</th>
</tr>
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<tbody>
<tr>
<td>Ease of doing business rank (1–190)</td>
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<td>Building quality control index (0–15)</td>
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<td>Reliability of supply and transparency of tariffs index (0–8)</td>
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<td>Quality of land administration index (0–30)</td>
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Note: Most indicator sets refer to a case scenario in the largest business city of an economy, though for 11 economies the data are a population-weighted average for the two largest business cities. For some indicators a result of “no practice” may be recorded for an economy; see the data notes for more details. In starting a business, procedures (number), time (days) and cost (% of income per capita) are calculated as the average of both men and women. For the postfiling index, a result of “not applicable” may be recorded for an economy.
<table>
<thead>
<tr>
<th>Country</th>
<th>Middle East &amp; North Africa</th>
<th>GNI per capita (US$)</th>
<th>Population</th>
</tr>
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<tbody>
<tr>
<td>JORDAN</td>
<td>Ease of doing business rank (1–190) 118</td>
<td>Overall distance to frontier (DTF) score (0–100) 57.30</td>
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<td>DTF score for starting a business (0–100) 84.62</td>
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<td>Quality of land administration index (0–30) 16.0</td>
<td>Quality of land administration (0–100) 40</td>
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</tbody>
</table>

Note: Most indicator sets refer to a case scenario in the largest business city of an economy, though for 11 economies the data are a population-weighted average for the two largest business cities. For some indicators a result of “no practice” may be recorded for an economy; see the data notes for more details. In starting a business, procedures (number), time (days) and cost (% of income per capita) are calculated as the average of both men and women. For the posfilling index, a result of “not applicable” may be recorded for an economy.
KIRIBATI

Ease of doing business rank (1–190) 152
Overall distance to frontier (DTF) score (0–100) 49.19
Population 112,423

Starting a business (rank) 140
DTF score for starting a business (0–100) 78.17
Procedures (number) 7
Time (days) 31
Cost (% of income per capita) 36.3
Minimum capital (% of income per capita) 13.0

Trading across borders (rank) 124
DTF score for trading across borders (0–100) 62.08
Time to export 7
Documentation compliance (hours) 24
Border compliance (hours) 72
Cost to export Documentation (US$) 310
Border compliance (US$) 420

Dealing with construction permits (rank) 119
DTF score for dealing with construction permits (0–100) 65.13
Procedures (number) 14
Time (days) 149
Cost (% of warehouse value) 0.3
Building quality control index (0–15) 5.0

Protecting minority investors (rank) 123
DTF score for protecting minority investors (0–100) 45.00
Extent of disclosure index (0–10) 6
Extent of director liability index (0–10) 5
Ease of shareholder suits index (0–10) 8
Extent of shareholder rights index (0–10) 5
Extent of ownership and control index (0–10) 2
Extent of corporate transparency index (0–10) 1

Payday laws (rank) 73
DTF score for payday laws (0–100) 75.08
Paying taxes (number per year) 11
Time (hours per year) 168
Total tax rate (% of profit) 32.7
Postfiling index (0–100) 41.30

Enforcing contracts (rank) 118
DTF score for enforcing contracts (0–100) 53.39
Time (years) 660
Cost (% of claim) 25.8
Quality of judicial processes index (0–10) 6.0

Registering property (rank) 144
DTF score for registering property (0–100) 49.13
Procedures (number) 5
Time (days) 513
Cost (% of property value) 0.0
Quality of land administration index (0–30) 9.0

Resolving insolvency (rank) 169
DTF score for resolving insolvency (0–100) 0.00
Time (years) NO PRACTICE
Cost (% of estate) NO PRACTICE
Recovery rate (cents on the dollar) 0.0
Strength of insolvency framework index (0–16) 0.0

OECD high income

KOREA, REP.

Ease of doing business rank (1–190) 5
Overall distance to frontier (DTF) score (0–100) 84.07
Population 50,617,045

Starting a business (rank) 11
DTF score for starting a business (0–100) 95.83
Procedures (number) 2
Time (days) 4
Cost (% of income per capita) 14.6
Minimum capital (% of income per capita) 0.0

Trading across borders (rank) 32
DTF score for trading across borders (0–100) 92.52
Time to export 3
Documentation compliance (hours) 1
Border compliance (hours) 13
Cost to export Documentation (US$) 11
Border compliance (US$) 185

Dealing with construction permits (rank) 31
DTF score for dealing with construction permits (0–100) 77.84
Procedures (number) 10
Time (days) 28
Cost (% of warehouse value) 4.3
Building quality control index (0–15) 8.0

Protecting minority investors (rank) 13
DTF score for protecting minority investors (0–100) 73.33
Extent of disclosure index (0–10) 7
Extent of director liability index (0–10) 6
Ease of shareholder suits index (0–10) 8
Extent of shareholder rights index (0–10) 7
Extent of ownership and control index (0–10) 7
Extent of corporate transparency index (0–10) 9

Payday laws (rank) 23
DTF score for payday laws (0–100) 86.56
Paying taxes (number per year) 12
Time (hours per year) 188
Total tax rate (% of profit) 33.1
Postfiling index (0–100) 92.58

Enforcing contracts (rank) 1
DTF score for enforcing contracts (0–100) 84.15
Time (years) 290
Cost (% of claim) 12.7
Quality of judicial processes index (0–10) 14.5

Registering property (rank) 39
DTF score for registering property (0–100) 76.34
Procedures (number) 7
Time (days) 5.5
Cost (% of property value) 5.1
Quality of land administration index (0–30) 27.5

Resolving insolvency (rank) 4
DTF score for resolving insolvency (0–100) 89.22
Time (years) 1.5
Cost (% of estate) 3.5
Recovery rate (cents on the dollar) 84.5
Strength of insolvency framework index (0–16) 14.0

KOSOVO

Ease of doing business rank (1–190) 60
Overall distance to frontier (DTF) score (0–100) 68.79
Population 1,797,151

Starting a business (rank) 13
DTF score for starting a business (0–100) 95.54
Procedures (number) 3
Time (days) 6
Cost (% of income per capita) 1.1
Minimum capital (% of income per capita) 0.0

Trading across borders (rank) 51
DTF score for trading across borders (0–100) 85.93
Time to export 6
Documentation compliance (hours) 38
Border compliance (hours) 42
Cost to export Documentation (US$) 127
Border compliance (US$) 137

Dealing with construction permits (rank) 129
DTF score for dealing with construction permits (0–100) 63.21
Procedures (number) 15
Time (days) 152
Cost (% of warehouse value) 6.1
Building quality control index (0–15) 9.0

Protecting minority investors (rank) 63
DTF score for protecting minority investors (0–100) 58.33
Extent of disclosure index (0–10) 6
Extent of director liability index (0–10) 6
Ease of shareholder suits index (0–10) 4
Extent of shareholder rights index (0–10) 10
Extent of ownership and control index (0–10) 4
Extent of corporate transparency index (0–10) 5

Payday laws (rank) 43
DTF score for payday laws (0–100) 83.24
Paying taxes (number per year) 10
Time (hours per year) 155
Total tax rate (% of profit) 15.2
Postfiling index (0–100) 61.00

Enforcing contracts (rank) 44
DTF score for enforcing contracts (0–100) 65.66
Time (years) 330
Cost (% of claim) 14.4
Quality of judicial processes index (0–10) 9.5

Resolving insolvency (rank) 163
DTF score for resolving insolvency (0–100) 20.88
Time (years) 2.0
Cost (% of estate) 15.0
Recovery rate (cents on the dollar) 38.8
Strength of insolvency framework index (0–16) 0.0

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Trading across borders

Starting a business

Dealing with construction permits

Registering property

Getting electricity

Resolving insolvency

LAO PDR

Ease of doing business rank (1–190) 139

Overall distance to frontier (DTF) score (0–100) 53.29

GNI per capita (US$) 1,730

Population 6,802,023

 ayr Reform making it easier to do business  x Change making it more difficult to do business

KYRGYZ REPUBLIC

Ease of doing business rank (1–190) 75

Overall distance to frontier (DTF) score (0–100) 65.17

GNI per capita (US$) 1,170

Population 5,957,000

Trading across borders

Getting credit

Dealing with construction permits

Registering property

Getting electricity

Resolving insolvency

Europe & Central Asia

Ease of doing business rank (1–190) 15

Overall distance to frontier (DTF) score (0–100) 90.60

GNI per capita (US$) 1,730

Population 6,802,023

Trading across borders

Getting credit

Dealing with construction permits

Registering property

Getting electricity

Resolving insolvency

EUROPE & CENTRAL ASIA

Ease of doing business rank (1–190) 16

Overall distance to frontier (DTF) score (0–100) 91.98

GNI per capita (US$) 1,170

Population 5,957,000

Trading across borders

Getting credit

Dealing with construction permits

Registering property

Getting electricity

Resolving insolvency

KUWAIT

Ease of doing business rank (1–190) 1

Overall distance to frontier (DTF) score (0–100) 102.00

GNI per capita (US$) 40,930

Population 3,892,115

Trading across borders

Getting credit

Dealing with construction permits

Registering property

Getting electricity

Resolving insolvency

MIDDLE EAST & NORTH AFRICA

Ease of doing business rank (1–190) 12

Overall distance to frontier (DTF) score (0–100) 59.55

GNI per capita (US$) 40,930

Population 3,892,115

Trading across borders

Getting credit

Dealing with construction permits

Registering property

Getting electricity

Resolving insolvency

Note: Most indicator sets refer to a case scenario in the largest business city of an economy, though for 11 economies the data are a population-weighted average for the two largest business cities. For some indicators a result of “no practice” may be recorded for an economy; see the data notes for more details. In starting a business, procedures (number), time (days) and cost (% of income per capita) are calculated as the average of both men and women. For the postfiling index, a result of “not applicable” may be recorded for an economy.
## Latvia

<table>
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<tr>
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<th>Score</th>
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<tr>
<td>Getting credit (rank)</td>
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<td>Debt to GDP (%)</td>
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<td>Documentary compliance (hours)</td>
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## Lebanon

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## Lesotho

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<td>Time to export</td>
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<tr>
<td>Documentary compliance (hours)</td>
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<td>Border compliance (hours)</td>
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<td>Cost (% of income per capita)</td>
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### LIBERIA

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<th>GNI per capita (US$)</th>
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#### Getting electricity

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<th>Cost (% of income per capita)</th>
<th>Minimum capital (% of income per capita)</th>
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#### Dealing with construction permits

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<th>Procedure</th>
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<th>Building quality control index (0–15)</th>
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#### Registering property

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<th>Procedure</th>
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<th>Cost (% of property value)</th>
<th>Quality of land administration index (0–30)</th>
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#### Trading across borders

<table>
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<th>Cost (% of income per capita)</th>
<th>Time (days)</th>
<th>Cost (% of estate)</th>
<th>Time (years)</th>
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### LIBY

<table>
<thead>
<tr>
<th>Ease of doing business rank (1–190)</th>
<th>Middle East &amp; North Africa</th>
<th>GNI per capita (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>188</td>
<td>Overall distance to frontier (DTF) score (0–100) 33.19</td>
<td>6,030 Population 6,278,436</td>
</tr>
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</table>

#### Getting credit

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Number</th>
<th>Cost (% of income per capita)</th>
<th>Minimum capital (% of income per capita)</th>
</tr>
</thead>
</table>

#### Dealing with construction permits

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Number</th>
<th>Cost (% of property value)</th>
<th>Building quality control index (0–15)</th>
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</thead>
</table>

#### Registering property

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Number</th>
<th>Cost (% of property value)</th>
<th>Quality of land administration index (0–30)</th>
</tr>
</thead>
</table>

#### Trading across borders

<table>
<thead>
<tr>
<th>Cost (% of income per capita)</th>
<th>Time (days)</th>
<th>Cost (% of estate)</th>
<th>Time (years)</th>
</tr>
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### LITHUANIA

<table>
<thead>
<tr>
<th>Ease of doing business rank (1–190)</th>
<th>Europe &amp; Central Asia</th>
<th>GNI per capita (US$)</th>
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<tr>
<td>21</td>
<td>Overall distance to frontier (DTF) score (0–100) 78.84</td>
<td>15,000 Population 2,910,199</td>
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#### Getting credit

<table>
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<th>Procedure</th>
<th>Number</th>
<th>Cost (% of income per capita)</th>
<th>Minimum capital (% of income per capita)</th>
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#### Dealing with construction permits

<table>
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<th>Procedure</th>
<th>Number</th>
<th>Cost (% of property value)</th>
<th>Building quality control index (0–15)</th>
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#### Registering property

<table>
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<th>Procedure</th>
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<th>Quality of land administration index (0–30)</th>
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#### Trading across borders

<table>
<thead>
<tr>
<th>Cost (% of income per capita)</th>
<th>Time (days)</th>
<th>Cost (% of estate)</th>
<th>Time (years)</th>
</tr>
</thead>
</table>

---

**Note:** Most indicator sets refer to a case scenario in the largest business city of an economy, though for 11 economies the data are a population-weighted average for the two largest business cities. For some indicators a result of “no practice” may be recorded for an economy; see the data notes for more details. In starting a business, procedures (number), time (days) and cost (% of income per capita) are calculated as the average of both men and women. For the postfiling index, a result of “not applicable” may be recorded for an economy.

⇒ Reform making it easier to do business  
⇒ Change making it more difficult to do business
<table>
<thead>
<tr>
<th>Country</th>
<th>Ease of doing business rank (1–190)</th>
<th>OECD high income</th>
<th>GNI per capita (US$)</th>
<th>Population</th>
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<td>Luxembourg</td>
<td>59</td>
<td>68.81</td>
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<td>569,676</td>
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<td>MACEDONIA, FYR</td>
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<td>81.74</td>
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<td>Madagascar</td>
<td>167</td>
<td>45.10</td>
<td>420</td>
<td>24,235,390</td>
</tr>
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</table>

- **Starting a business (rank)**: 67
- **DITF score for starting a business (0–100)**: 88.66
- **Procedures (number)**: 5
- **Time (days)**: 16.5
- **Cost (% of income per capita)**: 1.7
- **Minimum capital (% of income per capita)**: 19.5

- **Dealing with construction permits (rank)**: 7
- **DITF score for dealing with construction permits (0–100)**: 83.0
- **Procedures (number)**: 11
- **Time (days)**: 157
- **Cost (% of warehouse value)**: 0.7
- **Building quality control index (0–15)**: 15.0

- **Getting electricity (rank)**: 32
- **DITF score for getting electricity (0–100)**: 84.30
- **Procedures (number)**: 5
- **Time (days)**: 36
- **Cost (% of property value)**: 3.6
- **Reliability of supply and transparency of tariffs index (0–8)**: 7

- **Registering property (rank)**: 88
- **DITF score for registering property (0–100)**: 63.84
- **Procedures (number)**: 7
- **Time (days)**: 26.5
- **Cost (% of property value)**: 1.0
- **Quality of land administration index (0–30)**: 25.5

- **Getting electricity (rank)**: 29
- **DITF score for getting electricity (0–100)**: 84.51
- **Procedures (number)**: 3
- **Time (days)**: 97
- **Cost (% of income per capita)**: 212.3
- **Reliability of supply and transparency of tariffs index (0–8)**: 6

- **Registering property (rank)**: 48
- **DITF score for registering property (0–100)**: 74.05
- **Procedures (number)**: 7
- **Time (days)**: 30
- **Cost (% of property value)**: 3.2
- **Quality of land administration index (0–30)**: 24.5

- **Trading across borders (rank)**: 1
- **DITF score for trading across borders (0–100)**: 100.00
- **Time to export**: 5
- **Documentary compliance (hours)**: 1
- **Border compliance (hours)**: 0
- **Cost to export**: 0
- **Documentary compliance (US$)**: 0
- **Border compliance (US$)**: 0

- **Resolving insolvency (rank)**: 15
- **DITF score for enforcing insolvency (0–100)**: 73.32
- **Time (days)**: 321
- **Cost (% of claim)**: 9.7
- **Quality of judicial processes index (0–18)**: 8.5

- **Resolving insolvency (rank)**: 82
- **DITF score for enforcing insolvency (0–100)**: 45.40
- **Time (days)**: 2
- **Cost (% of estate)**: 1.7
- **Strength of insolvency framework index (0–16)**: 7.0

- **Trading across borders (rank)**: 27
- **DITF score for trading across borders (0–100)**: 93.87
- **Time to export**: 5
- **Documentary compliance (hours)**: 2
- **Border compliance (hours)**: 9
- **Cost to export**: 0
- **Documentary compliance (US$)**: 45
- **Border compliance (US$)**: 150

- **Resolving insolvency (rank)**: 48
- **DITF score for enforcing insolvency (0–100)**: 84.33
- **Time (days)**: 737
- **Cost (% of claim)**: 28.8
- **Quality of judicial processes index (0–18)**: 14.0

- **Trading across borders (rank)**: 128
- **DITF score for trading across borders (0–100)**: 60.95
- **Time to export**: 5
- **Documentary compliance (hours)**: 49
- **Border compliance (hours)**: 70
- **Cost to import**: 0
- **Documentary compliance (US$)**: 117
- **Border compliance (US$)**: 868

- **Resolving insolvency (rank)**: 158
- **DITF score for enforcing insolvency (0–100)**: 42.85
- **Time (days)**: 871
- **Cost (% of claim)**: 33.6
- **Quality of judicial processes index (0–18)**: 5.0

- **Resolving insolvency (rank)**: 127
- **DITF score for enforcing insolvency (0–100)**: 34.24
- **Time (days)**: 3.0
- **Cost (% of estate)**: 8.5
- **Strength of insolvency framework index (0–16)**: 9.0

Note: Most indicator sets refer to a case scenario in the largest business city of an economy, though for 11 economies the data are a population-weighted average for the two largest business cities. For some indicators a result of “no practice” may be recorded for an economy; see the data notes for more details. In starting a business, procedures (number), time (days) and cost (% of income per capita) are calculated as the average of both men and women. For the postfilings index, a result of “not applicable” may be recorded for an economy.
## DOING BUSINESS 2017

**MALAWI**

**Ease of doing business rank (1–190):** 133  
**Overall distance to frontier (DTF score (0–100):** 54.39  
**Population:** 17,215,232  
**Trading across borders (rank):** 118  
**DTF score for trading across borders (0–100):** 63.32  
**Time to export:** 4  
**Documentary compliance (hours):** 83  
**Border compliance (hours):** 85  
**Cost to export:** 342  
**Border compliance (US$):** 243  
** Exporting contracts (rank):** 148  
**DTF score for exporting contracts (0–100):** 46.48  
**Time (days):** 522  
**Cost (% of claim):** 69.1  
**Quality of judicial processes index (0–18):** 9.0  
**Resolving insolvency (rank):** 162  
**DTF score for resolving insolvency (0–100):** 22.25  
**Time (years):** 2.6  
**Cost (% of estate):** 25.0  
**Recovery rate (cents on the dollar):** 12.3  
**Strength of insolvency framework index (0–16):** 5.0  

**Getting credit (rank):** 101  
**DTF score for getting credit (0–100):** 45.00  
**Strength of legal rights index (0–12):** 7  
**Depth of credit information index (0–8):** 9  
**Credit bureau coverage (% of adults):** 0  
**Credit registry coverage (% of adults):** 0  

**Protecting minority investors (rank):** 132  
**DTF score for protecting minority investors (0–100):** 43.33  
**Extent of disclosure index (0–10):** 4  
**Extent of director liability index (0–10):** 7  
**Ease of shareholder suits index (0–10):** 6  
**Extent of shareholder rights index (0–10):** 5  
**Extent of ownership and control index (0–10):** 1  
**Extent of corporate transparency index (0–10):** 3  

**Paying taxes (rank):** 102  
**DTF score for paying taxes (0–100):** 69.58  
**Payments (number per year):** 32  
**Time (hours per year):** 177.5  
**Total tax rate (% of profit):** 34.5  
**Postfiling index (0–100):** 63.35  

**Registering property (rank):** 95  
**DTF score for registering property (0–100):** 62.41  
**Procedures (number):** 6  
**Time (days):** 69  
**Cost (% of property value):** 1.2  
**Quality of land administration index (0–30):** 10.5  

**Building quality control index (0–15):** 7.0  
**Extent of shareholder rights index (0–10):** 8  
**Documentary compliance (US$):** 180  
**Cost to import:** 0.5  
**Ease of shareholder suits index (0–10):** 8  
**Border compliance (hours):** 63  
**Documentary compliance (US$):** 162  
**Border compliance (US$):** 143  

**Getting electricity (rank):** 112  
**DTF score for getting electricity (0–100):** 83.67  
**Procedures (number):** 8.5  
**Time (days):** 18.5  
**Cost (% of income per capita):** 6.2  
**Minimum capital (% of income per capita):** 0.0  

**Dealing with construction permits (rank):** 13  
**DTF score for dealing with construction permits (0–100):** 81.10  
**Procedures (number):** 15  
**Time (days):** 79  
**Cost (% of warehouse value):** 1.4  
**Building quality control index (0–15):** 13.0  

**Getting electricity (rank):** 8  
**DTF score for getting electricity (0–100):** 94.34  
**Procedures (number):** 4  
**Time (days):** 31  
**Cost (% of income per capita):** 26.6  
**Reliability of supply and transparency of tariffs index (0–8):** 8  

**Registering property (rank):** 40  
**DTF score for registering property (0–100):** 76.29  
**Procedures (number):** 8  
**Time (days):** 13  
**Cost (% of property value):** 3.4  
**Quality of land administration index (0–30):** 27.5  

**Starting a business (rank):** 65  
**DTF score for starting a business (0–100):** 88.98  
**Procedures (number):** 6  
**Time (days):** 12  
**Cost (% of income per capita):** 5.2  
**Minimum capital (% of income per capita):** 1.9  

**Dealing with construction permits (rank):** 62  
**DTF score for dealing with construction permits (0–100):** 72.80  
**Procedures (number):** 10  
**Time (days):** 140  
**Cost (% of warehouse value):** 0.5  
**Building quality control index (0–15):** 7.0  

**Getting electricity (rank):** 145  
**DTF score for getting electricity (0–100):** 53.57  
**Procedures (number):** 6  
**Time (days):** 91  
**Cost (% of income per capita):** 32.7  
**Reliability of supply and transparency of tariffs index (0–8):** 0  

**Registering property (rank):** 172  
**DTF score for registering property (0–100):** 39.97  
**Procedures (number):** 6  
**Time (days):** 57  
**Cost (% of property value):** 15.9  
**Quality of land administration index (0–30):** 8.5  

**Note:** Most indicator sets refer to a case scenario in the largest business city of an economy, though for 11 economies the data are a population-weighted average for the two largest business cities. For some indicators a result of “no practice” may be recorded for an economy; see the data notes for more details. In starting a business, procedures (number), time (days) and cost (% of income per capita) are calculated as the average of both men and women. For the postfiling index, a result of “not applicable” may be recorded for an economy.
## COUNTRY TABLES

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<thead>
<tr>
<th>Country</th>
<th>Sub-Saharan Africa</th>
<th>Middle East &amp; North Africa</th>
<th>East Asia &amp; Pacific</th>
</tr>
</thead>
<tbody>
<tr>
<td>MALI</td>
<td>Ease of doing business rank (1–190)</td>
<td>141</td>
<td>Overall distance to frontier (DTF) score (0–100)</td>
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<tr>
<td></td>
<td>GNI per capita (US$)</td>
<td>790</td>
<td>Population</td>
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<td><strong>Getting credit</strong> (rank)</td>
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<td>DTF score for getting credit (0–100)</td>
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<tr>
<td></td>
<td>Procedures (number)</td>
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<td>Strength of legal rights index (0–12)</td>
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<tr>
<td></td>
<td>Time (days)</td>
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<td>Depth of credit information index (0–8)</td>
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<td>Cost (% of income per capita)</td>
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<td>Credit bureau coverage (% of adults)</td>
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<td>Minimum capital (% of income per capita)</td>
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<td>Credit registry coverage (% of adults)</td>
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<td>DTF score for dealing with construction permits (0–100)</td>
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<td>Procedures (number)</td>
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<td>DTF score for protecting minority investors (0–100)</td>
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<td>Time (days)</td>
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<td>Extent of disclosure index (0–10)</td>
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<td>Cost (% of warehouse value)</td>
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<td>Building quality control index (0–15)</td>
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<td>Extent of shareholder rights index (0–10)</td>
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<td>MALTA</td>
<td>Ease of doing business rank (1–190)</td>
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<td>Credit bureau coverage (% of adults)</td>
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<td>Credit registry coverage (% of adults)</td>
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<td>Dealing with construction permits (rank)</td>
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<td>DTF score for protecting minority investors (0–100)</td>
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<td>Quality of land administration index (0–30)</td>
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<td>Time (hours per year)</td>
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<td>MARSHALL ISLANDS</td>
<td>Ease of doing business rank (1–190)</td>
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<td>Credit bureau coverage (% of adults)</td>
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<td>Minimum capital (% of income per capita)</td>
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<td>Credit registry coverage (% of adults)</td>
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<td>Dealing with construction permits (rank)</td>
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<td>DTF score for registering property (0–100)</td>
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Note: Most indicator sets refer to a case scenario in the largest business city of an economy, though for 11 economies the data are a population-weighted average for the two largest business cities. For some indicators a result of “no practice” may be recorded for an economy; see the data notes for more details. In starting a business, procedures (number), time (days) and cost (% of income per capita) are calculated as the average of both men and women. For the posting index, a result of “not applicable” may be recorded for an economy.
### MAURITANIA

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### MEXICO

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Note: Most indicator sets refer to a case scenario in the largest business city of an economy, though for 11 economies the data are a population-weighted average for the two largest business cities. For some indicators a result of “no practice” may be recorded for an economy; see the data notes for more details. In starting a business, procedures (number), time (days) and cost (% of income per capita) are calculated as the average of both men and women. For the postfiling index, a result of “not applicable” may be recorded for an economy.
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<td>Time (days)</td>
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<tr>
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<td>0.9</td>
<td>Cost (% of property value)</td>
<td>0.9</td>
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<tr>
<td></td>
<td>22.0</td>
<td>Quality of land administration index (0–30)</td>
<td>22.0</td>
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<tr>
<td><strong>MONGOLIA</strong></td>
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<tr>
<td>Ease of doing business rank (1–190)</td>
<td>Overall distance to frontier (DTF score (0–100))</td>
<td>GNI per capita (US$)</td>
<td>Population</td>
</tr>
<tr>
<td>64</td>
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<tr>
<td><strong>Starting a business</strong></td>
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<tr>
<td>(rank)</td>
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<tr>
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<td>Procedures (number)</td>
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<td>Time (days)</td>
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<td>Cost (% of income per capita)</td>
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<td>Minimum capital (% of income per capita)</td>
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<td><strong>Dealing with construction permits</strong></td>
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<tr>
<td>(rank)</td>
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<td>Cost (% of warehouse value)</td>
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<td>Building quality control index (0–15)</td>
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<tr>
<td><strong>Getting electricity</strong></td>
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<tr>
<td>(rank)</td>
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<td>DTF score for getting electricity</td>
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<td>57.9</td>
<td>Cost (% of income per capita)</td>
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<td>8</td>
<td>Reliability of supply and transparency of tariffs index (0–8)</td>
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<tr>
<td><strong>Registering property</strong></td>
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</tr>
<tr>
<td>(rank)</td>
<td>46</td>
<td>DTF score for registering property</td>
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<td>Procedures (number)</td>
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<td>Time (days)</td>
<td>10.5</td>
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<td>Cost (% of property value)</td>
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<tr>
<td></td>
<td>17.1</td>
<td>Quality of land administration index (0–30)</td>
<td>17.1</td>
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</table>

Note: Most indicator sets refer to a case scenario in the largest business city of an economy, though for 11 economies the data are a population-weighted average for the two largest business cities. For some indicators a result of “no practice” may be recorded for an economy; see the data notes for more details. In starting a business, procedures (number), time (days) and cost (% of income per capita) are calculated as the average of both men and women. For the postfiling index, a result of “not applicable” may be recorded for an economy.
### Montenegro

**Ease of doing business rank (1–190):** 51

<table>
<thead>
<tr>
<th>Category</th>
<th>Value (2017)</th>
<th>Value (2016)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall distance to frontier (DTF) score (0–100)</td>
<td>72.08</td>
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<tr>
<td>Getting credit (rank)</td>
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<tr>
<td>DTF score for getting credit (0–100)</td>
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<tr>
<td>Strength of legal rights index (0–12)</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Depth of credit information index (0–8)</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Credit bureau coverage (% of adults)</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Credit registry coverage (% of adults)</td>
<td>20.8</td>
<td>20.8</td>
</tr>
<tr>
<td>Protecting minority investors (rank)</td>
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<td>43</td>
</tr>
<tr>
<td>DTF score for protecting minority investors (0–100)</td>
<td>63.33</td>
<td>63.33</td>
</tr>
<tr>
<td>Extent of disclosure index (0–10)</td>
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<tr>
<td>Extent of director liability index (0–10)</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Ease of shareholder suits index (0–10)</td>
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<tr>
<td>Extent of shareholder rights index (0–10)</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Extent of ownership and control index (0–10)</td>
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<tr>
<td>Extent of corporate transparency index (0–10)</td>
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<tr>
<td>Paying taxes (rank)</td>
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<td>58</td>
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<td>DTF score for paying taxes (0–100)</td>
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<tr>
<td>Payments (number per year)</td>
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<td>Time (hours per year)</td>
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<tr>
<td>Total tax rate (% of profit)</td>
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<td>22.2</td>
</tr>
<tr>
<td>Posting index (0–100)</td>
<td>85.48</td>
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</tbody>
</table>

**Registering property (rank):** 78

| Number (0–100) | 65.82 |
| Number (0–100) | 7 |
| Number (0–100) | 69 |
| Number (0–100) | 4.8 |
| Quality of land administration index (0–30) | 17.5 |

**Morocco**

**Ease of doing business rank (1–190):** 68

<table>
<thead>
<tr>
<th>Category</th>
<th>Value (2017)</th>
<th>Value (2016)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall distance to frontier (DTF) score (0–100)</td>
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<td>67.50</td>
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<tr>
<td>Getting credit (rank)</td>
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<td>102</td>
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<tr>
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<tr>
<td>Credit bureau coverage (% of adults)</td>
<td>24.6</td>
<td>24.6</td>
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<tr>
<td>Credit registry coverage (% of adults)</td>
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<td>0.0</td>
</tr>
<tr>
<td>Protecting minority investors (rank)</td>
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<td>88</td>
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<tr>
<td>DTF score for protecting minority investors (0–100)</td>
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<td>53.33</td>
</tr>
<tr>
<td>Extent of disclosure index (0–10)</td>
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<tr>
<td>Extent of director liability index (0–10)</td>
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<td>2</td>
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<tr>
<td>Ease of shareholder suits index (0–10)</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Extent of shareholder rights index (0–10)</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Extent of ownership and control index (0–10)</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Extent of corporate transparency index (0–10)</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Paying taxes (rank)</td>
<td>41</td>
<td>42</td>
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<tr>
<td>DTF score for paying taxes (0–100)</td>
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<td>83.51</td>
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<td>Payments (number per year)</td>
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<tr>
<td>Time (hours per year)</td>
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<tr>
<td>Total tax rate (% of profit)</td>
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</tr>
<tr>
<td>Posting index (0–100)</td>
<td>97.71</td>
<td>97.71</td>
</tr>
</tbody>
</table>

**Registering property (rank):** 87

| Number (0–100) | 63.94 |
| Number (0–100) | 6 |
| Number (0–100) | 22 |
| Number (0–100) | 4.9 |
| Quality of land administration index (0–30) | 14.9 |

**Mozambique**

**Ease of doing business rank (1–190):** 137

<table>
<thead>
<tr>
<th>Category</th>
<th>Value (2017)</th>
<th>Value (2016)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall distance to frontier (DTF) score (0–100)</td>
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<td>53.78</td>
</tr>
<tr>
<td>Getting credit (rank)</td>
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<td>158</td>
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<tr>
<td>DTF score for getting credit (0–100)</td>
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<td>25.00</td>
</tr>
<tr>
<td>Strength of legal rights index (0–12)</td>
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<tr>
<td>Depth of credit information index (0–8)</td>
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</tr>
<tr>
<td>Credit bureau coverage (% of adults)</td>
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<td>0.0</td>
</tr>
<tr>
<td>Credit registry coverage (% of adults)</td>
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<td>5.3</td>
</tr>
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<tr>
<td>Extent of disclosure index (0–10)</td>
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<tr>
<td>Extent of director liability index (0–10)</td>
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<tr>
<td>Ease of shareholder suits index (0–10)</td>
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<tr>
<td>Extent of shareholder rights index (0–10)</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Extent of ownership and control index (0–10)</td>
<td>3</td>
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</tr>
<tr>
<td>Extent of corporate transparency index (0–10)</td>
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<td>1</td>
</tr>
<tr>
<td>Paying taxes (rank)</td>
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<td>113</td>
</tr>
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<td>DTF score for paying taxes (0–100)</td>
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</tr>
<tr>
<td>Payments (number per year)</td>
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<tr>
<td>Time (hours per year)</td>
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<tr>
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<tr>
<td>Posting index (0–100)</td>
<td>62.49</td>
<td>62.49</td>
</tr>
</tbody>
</table>

**Registering property (rank):** 107

| Number (0–100) | 58.76 |
| Number (0–100) | 6 |
| Number (0–100) | 40 |
| Number (0–100) | 5.4 |
| Quality of land administration index (0–30) | 9.5 |

Note: Most indicator sets refer to a case scenario in the largest business city of an economy, though for 11 economies the data are a population-weighted average for the two largest business cities. For some indicators a result of “no practice” may be recorded for an economy; see the data notes for more details. In starting a business, procedures (number), time (days) and cost (% of income per capita) are calculated as the average of both men and women. For the posting index, a result of “not applicable” may be recorded for an economy.
### Country Tables

<table>
<thead>
<tr>
<th>Country</th>
<th>East Asia &amp; Pacific</th>
<th>GNI per capita (US$)</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Myanmar</strong></td>
<td>Ease of doing business rank (1–190) 170 Overall distance to frontier (DTF) score (0–100) 44.56</td>
<td>1,293</td>
<td>53,697,154</td>
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<tr>
<td><strong>Namibia</strong></td>
<td>Ease of doing business rank (1–190) 108 Overall distance to frontier (DTF) score (0–100) 58.82</td>
<td>5,210</td>
<td>2,458,830</td>
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<tr>
<td><strong>Nepal</strong></td>
<td>Ease of doing business rank (1–190) 107 Overall distance to frontier (DTF) score (0–100) 58.88</td>
<td>730</td>
<td>28,513,700</td>
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### Reform making it easier to do business

<table>
<thead>
<tr>
<th>Country</th>
<th>Trading across borders (rank) 159 Overall distance to frontier (DTF) score (0–100) 44.64</th>
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</thead>
<tbody>
<tr>
<td><strong>Myanmar</strong></td>
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<td><strong>Namibia</strong></td>
<td>DTF score for trading across borders (0–100) 24.53</td>
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<td><strong>Nepal</strong></td>
<td>DTF score for trading across borders (0–100) 58.05</td>
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</tbody>
</table>

### Change making it more difficult to do business

Note: Most indicator sets refer to a case scenario in the largest business city of an economy, though for 11 economies the data are a population-weighted average for the two largest business cities. For some indicators a result of “no practice” may be recorded for an economy; see the data notes for more details. In starting a business, procedures (number), time (days) and cost (% of income per capita) are calculated as the average of both men and women. For the postfiling index, a result of “not applicable” may be recorded for an economy.
<table>
<thead>
<tr>
<th>Indicator</th>
<th>Nicaragua</th>
<th>New Zealand</th>
<th>Netherlands</th>
<th>Latin America &amp; Caribbean</th>
<th>OECD High Income</th>
<th>GNI per capita (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ease of doing business rank (1–190)</strong></td>
<td>127</td>
<td>1</td>
<td>28</td>
<td>1</td>
<td>48,940</td>
<td>40,080</td>
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<tr>
<td><strong>Overall distance to frontier (DTF score (0–100)</strong></td>
<td>55.75</td>
<td>87.01</td>
<td>76.38</td>
<td>88.00</td>
<td>78.99</td>
<td>58.58</td>
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<tr>
<td><strong>Population</strong></td>
<td>6,082,032</td>
<td>4,595,700</td>
<td>16,936,520</td>
<td>48,080</td>
<td></td>
<td>48,080</td>
</tr>
</tbody>
</table>

**Paying taxes**

- **Netherlands**
  - **Paying taxes (rank)**: 1
  - **DTF score for paying taxes (0–100)**: 88.00
  - **Time (hours per year)**: 119
  - **Total tax rate (% of profit)**: 40.4
  - **Postfiling index (0–100)**: 93.40

- **New Zealand**
  - **Paying taxes (rank)**: 11
  - **DTF score for paying taxes (0–100)**: 89.71
  - **Time (hours per year)**: 152
  - **Total tax rate (% of profit)**: 34.3
  - **Postfiling index (0–100)**: 96.90

- **Nicaragua**
  - **Paying taxes (rank)**: 145
  - **DTF score for paying taxes (0–100)**: 48.29
  - **Time (hours per year)**: 201
  - **Total tax rate (% of profit)**: 60.8
  - **Postfiling index (0–100)**: 77.12

**Trading across borders**

- **Nicaragua**
  - **Trading across borders (rank)**: 73
  - **DTF score for trading across borders (0–100)**: 78.99
  - **Time to export**: 21.6
  - **Cost (% of export)**: 27.2
  - **Quality of judicial processes index (0–18)**: 11.0

- **New Zealand**
  - **Trading across borders (rank)**: 83
  - **DTF score for trading across borders (0–100)**: 58.58
  - **Time to export**: 490
  - **Cost (% of export)**: 26.8
  - **Quality of judicial processes index (0–18)**: 16.5

- **Netherlands**
  - **Trading across borders (rank)**: 103
  - **DTF score for trading across borders (0–100)**: 40.66
  - **Time (years)**: 2.2
  - **Cost (% of export)**: 14.5
  - **Quality of judicial processes index (0–18)**: 7.0

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<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>Sub-Saharan Africa</th>
<th>OECD high income</th>
<th>GNI per capita (US$)</th>
<th>Population</th>
<th>Ease of doing business rank (1–190)</th>
<th>Overall distance to frontier (DTF score) (0–100)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NIGER</td>
<td>150</td>
<td>49.57</td>
<td>239,952</td>
<td>19,899,120</td>
<td>88 (rank)</td>
<td>86.16</td>
</tr>
<tr>
<td>Starting a business</td>
<td>➕</td>
<td>➕</td>
<td>Starting a business (rank)</td>
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<td>86.16</td>
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<td>Time (days)</td>
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<tr>
<td>Cost (% of income per capita)</td>
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<td>112</td>
<td>6.6</td>
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<td>0.0</td>
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<tr>
<td>Minimum capital (% of income per capita)</td>
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<td>6.6</td>
<td>5.0</td>
<td>0.0</td>
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<tr>
<td>DEALING WITH CONSTRUCTION PERMITS</td>
<td>174</td>
<td>46.40</td>
<td>3.5</td>
<td>2.5</td>
<td>2.0</td>
<td></td>
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<tr>
<td>DTF score for dealing with construction permits (0–100)</td>
<td>46.40</td>
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<td>2.5</td>
<td>2.0</td>
<td></td>
<td></td>
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<tr>
<td>Procedures (number)</td>
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<td>15</td>
<td>112</td>
<td>112</td>
<td>6.6</td>
<td></td>
</tr>
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<td>Building quality control index (0–15)</td>
<td>6.6</td>
<td>5.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td>Getting electricity</td>
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<td>54.35</td>
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<td>4.0</td>
<td>4.0</td>
<td></td>
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Note: Most indicator sets refer to a case scenario in the largest business city of an economy, though for 11 economies the data are a population-weighted average for the two largest business cities. For some indicators a result of “no practice” may be recorded for an economy; see the data notes for more details. In starting a business, procedures (number), time (days) and cost (% of income per capita) are calculated as the average of both men and women. For the posting index, a result of “not applicable” may be recorded for an economy.
### Middle East & North Africa

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<tr>
<th>Country</th>
<th>Ease of doing business rank (1–190)</th>
<th>Overall distance to frontier (DTF) score (0–100)</th>
<th>GNI per capita (US$)</th>
<th>Population</th>
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### South Asia

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## Panama

### Ease of doing business rank (1–190)

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### Latin America & Caribbean

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### Pana New Guinea

### Ease of doing business rank (1–190)

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### East Asia & Pacific

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<td>Dealing with construction permits</td>
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</tr>
<tr>
<td>Getting electricity</td>
<td>65.50</td>
</tr>
<tr>
<td>Registering property</td>
<td>55.27</td>
</tr>
</tbody>
</table>

###_event

- Reform making it easier to do business
- Change making it more difficult to do business

---

Note: Most indicator sets refer to a case scenario in the largest business city of an economy, though for 11 economies the data are a population-weighted average for the two largest business cities. For some indicators a result of “no practice” may be recorded for an economy; see the data notes for more details. In starting a business, procedures (number), time (days) and cost (% of income per capita) are calculated as the average of both men and women. For the postfiling index, a result of “not applicable” may be recorded for an economy.
## PERU

### Ease of doing business rank (1–190) 54

<table>
<thead>
<tr>
<th>Category</th>
<th>Rank</th>
<th>Indicator</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Getting credit</td>
<td>16</td>
<td>DTF score for getting credit (0–100)</td>
<td>80.00</td>
</tr>
<tr>
<td>Protecting minority investors</td>
<td>53</td>
<td>DTF score for protecting minority investors (0–100)</td>
<td>60.00</td>
</tr>
<tr>
<td>Paying taxes</td>
<td>105</td>
<td>DTF score for paying taxes (0–100)</td>
<td>69.04</td>
</tr>
<tr>
<td>Registering property</td>
<td>37</td>
<td>DTF score for registering property (0–100)</td>
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<td>Starting a business</td>
<td>103</td>
<td>DTF score for starting a business (0–100)</td>
<td>85.01</td>
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</table>

### Overall distance to frontier (DTF score (0–100)) 70.25

### Population 31,376,670

### Latin America & Caribbean

### GNI per capita (US$) 6,200

### PHILIPPINES

### Ease of doing business rank (1–190) 99

<table>
<thead>
<tr>
<th>Category</th>
<th>Rank</th>
<th>Indicator</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Getting credit</td>
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<td>DTF score for getting credit (0–100)</td>
<td>40.00</td>
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<tr>
<td>Protecting minority investors</td>
<td>137</td>
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<td>41.69</td>
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<tr>
<td>Paying taxes</td>
<td>115</td>
<td>DTF score for paying taxes (0–100)</td>
<td>65.74</td>
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<td>DTF score for registering property (0–100)</td>
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<td>DTF score for starting a business (0–100)</td>
<td>68.86</td>
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</table>

### Overall distance to frontier (DTF score (0–100)) 60.40

### Population 100,699,395

### East Asia & Pacific

### GNI per capita (US$) 3,540

### POLAND

### Ease of doing business rank (1–190) 24

<table>
<thead>
<tr>
<th>Category</th>
<th>Rank</th>
<th>Indicator</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Getting credit</td>
<td>20</td>
<td>DTF score for getting credit (0–100)</td>
<td>75.00</td>
</tr>
<tr>
<td>Protecting minority investors</td>
<td>42</td>
<td>DTF score for protecting minority investors (0–100)</td>
<td>63.33</td>
</tr>
<tr>
<td>Paying taxes</td>
<td>47</td>
<td>DTF score for paying taxes (0–100)</td>
<td>82.73</td>
</tr>
<tr>
<td>Registering property</td>
<td>38</td>
<td>DTF score for registering property (0–100)</td>
<td>76.49</td>
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<tr>
<td>Starting a business</td>
<td>107</td>
<td>DTF score for starting a business (0–100)</td>
<td>84.22</td>
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</table>

### Overall distance to frontier (DTF score (0–100)) 77.81

### Population 37,999,494

### OECD high income

### GNI per capita (US$) 13,376

### Trading across borders (rank) 86

<table>
<thead>
<tr>
<th>Category</th>
<th>Rank</th>
<th>Indicator</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Getting credit</td>
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<td>47</td>
<td>DTF score for paying taxes (0–100)</td>
<td>82.73</td>
</tr>
</tbody>
</table>

### Trading across borders (rank) 1

<table>
<thead>
<tr>
<th>Category</th>
<th>Rank</th>
<th>Indicator</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Getting credit</td>
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<td>DTF score for getting credit (0–100)</td>
<td>75.00</td>
</tr>
<tr>
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<tr>
<td>Paying taxes</td>
<td>47</td>
<td>DTF score for paying taxes (0–100)</td>
<td>82.73</td>
</tr>
</tbody>
</table>

Note: Most indicator sets refer to a case scenario in the largest business city of an economy, though for 11 economies the data are a population-weighted average for the two largest business cities. For some indicators a result of “no practice” may be recorded for an economy; see the data notes for more details. In starting a business, procedures (number), time (days) and cost (% of income per capita) are calculated as the average of both men and women. For the postfiling index, a result of “not applicable” may be recorded for an economy.
<table>
<thead>
<tr>
<th>Country</th>
<th>Ease of doing business rank (1–190)</th>
<th>OECD high income</th>
<th>GNI per capita (US$)</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>PORTUGAL</td>
<td>Ease of doing business rank (1–190)</td>
<td>25</td>
<td>Overall distance to frontier (DTF) score (0–100) 77.40</td>
<td>10,348,648</td>
</tr>
<tr>
<td>Starting a business (rank)</td>
<td>32</td>
<td>DTF score for starting a business (0–100) 92.85</td>
<td>5</td>
<td>4.5</td>
</tr>
<tr>
<td>Dealing with construction permits (rank)</td>
<td>35</td>
<td>DTF score for dealing with construction permits (0–100) 76.67</td>
<td>14</td>
<td>2.3</td>
</tr>
<tr>
<td>Getting electricity (rank)</td>
<td>50</td>
<td>DTF score for getting electricity (0–100) 80.72</td>
<td>7</td>
<td>3.3</td>
</tr>
<tr>
<td>Registering property (rank)</td>
<td>27</td>
<td>DTF score for registering property (0–100) 80.26</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Total tax rate (% of GNI per capita)</td>
<td>10.8</td>
<td>Procedures (number)</td>
<td>41</td>
<td>37.3</td>
</tr>
<tr>
<td>Time to creditors (days)</td>
<td>125</td>
<td>Cost (% of income per capita)</td>
<td>100.0</td>
<td>1.2</td>
</tr>
<tr>
<td>Credit registry coverage (% of adults)</td>
<td>100.0</td>
<td>Minimum capital (% of income per capita)</td>
<td>0.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

| PUERTO RICO (U.S.) | Latin America & Caribbean | Ease of doing business rank (1–190) | 55 | Overall distance to frontier (DTF) score (0–100) 69.82 | 19,149 |
| Starting a business (rank) | 51 | DTF score for starting a business (0–100) 91.23 | 6 | 1.5 | 1.3 | 0.0 |
| Dealing with construction permits (rank) | 131 | DTF score for dealing with construction permits (0–100) 62.17 | 20 | 1.5 | 6.2 | 12.0 |
| Getting electricity (rank) | 65 | DTF score for getting electricity (0–100) 76.55 | 5 | 3.3 | 354.1 | 4.0 |
| Registering property (rank) | 153 | DTF score for registering property (0–100) 47.29 | 8 | 191 | 1.2 | 14.0 |
| Total tax rate (% of GNI per capita) | 9.8 | Procedures (number) | 8 | 8.5 | 1.2 | 0.0 |
| Time to creditors (days) | 125 | Cost (% of income per capita) | 100.0 | 125 | 25.6 | 7.0 |
| Credit registry coverage (% of adults) | 100.0 | Minimum capital (% of income per capita) | 0.0 | 0.0 | 0.0 | 0.0 |

| QATAR | Middle East & North Africa | Ease of doing business rank (1–190) | 83 | Overall distance to frontier (DTF) score (0–100) 63.66 | 2,235,355 |
| Starting a business (rank) | 91 | DTF score for starting a business (0–100) 86.06 | 9 | 9 | 6.2 | 0.0 |
| Dealing with construction permits (rank) | 21 | DTF score for dealing with construction permits (0–100) 79.16 | 16 | 16 | 12.0 | 6.0 |
| Getting electricity (rank) | 44 | DTF score for getting electricity (0–100) 81.72 | 4 | 90 | 10.8 | 6.0 |
| Registering property (rank) | 26 | DTF score for registering property (0–100) 81.06 | 13 | 1 | 30.4 | 7.0 |
| Total tax rate (% of GNI per capita) | 10.8 | Procedures (number) | 1 | 10.8 | 1 | 21.6 |
| Time to creditors (days) | 125 | Cost (% of income per capita) | 100.0 | 0.0 | 22.0 | 7.0 |
| Credit registry coverage (% of adults) | 100.0 | Minimum capital (% of income per capita) | 0.0 | 0.0 | 30.4 | 7.0 |

Note: Most indicator sets refer to a case scenario in the largest business city of an economy, though for 11 economies the data are a population-weighted average for the two largest business cities. For some indicators a result of “no practice” may be recorded for an economy; see the data notes for more details. In starting a business, procedures (number), time (days) and cost (% of income per capita) are calculated as the average of both men and women. For the posting index, a result of “not applicable” may be recorded for an economy.
Starting a business (rank) 117
  DITF score for starting a business (0–100) 71.11
  Procedures (number) 7
  Time (days) 21
  Cost (% of income per capita) 14.4
  Quality of land administration index (0–30) 16.0

Registering property (rank) 57
  DITF score for registering property (0–100) 71.11
  Procedures (number) 7
  Time (days) 21
  Cost (% of property value) 0.2
  Quality of land administration index (0–30) 16.0

Getting electricity (rank) 30
  DITF score for getting electricity (0–100) 84.37
  Procedures (number) 3
  Time (days) 160.5
  Cost (% of income per capita) 44.1
  Reliability of supply and transparency of tariffs index (0–8) 8

Registering property (rank) 57
  DITF score for registering property (0–100) 71.11
  Procedures (number) 7
  Time (days) 21
  Cost (% of property value) 0.2
  Quality of land administration index (0–30) 16.0

RUSSIAN FEDERATION

Ease of doing business rank (1–190) 40

Getting electricity (rank) 10
  DITF score for getting electricity (0–100) 71.11
  Procedures (number) 8
  Time (days) 182
  Cost (% of income per capita) 56.1
  Reliability of supply and transparency of tariffs index (0–8) 7

Registering property (rank) 106
  DITF score for registering property (0–100) 71.11
  Procedures (number) 7
  Time (days) 21
  Cost (% of property value) 0.2
  Quality of land administration index (0–30) 16.0

TRADE PERFORMANCE

Trading across borders (rank) 140
  DITF score for trading across borders (0–100) 71.08
  Procedures (number) 512
  Time (days) 512
  Cost (% of claim) 28.9
  Quality of judicial processes index (0–18) 14.0

Resolving insolvency (rank) 49
  DITF score for resolving insolvency (0–100) 59.16
  Time (years) 3.3
  Cost (% of estate) 10.5
  Recovery rate (cents on the dollar) 34.3
  Strength of insolvency framework index (0–16) 13.0

RUSSIAN FEDERATION

Ease of doing business rank (1–190) 40

Trading across borders (rank) 140
  DITF score for trading across borders (0–100) 71.08
  Procedures (number) 512
  Time (days) 512
  Cost (% of claim) 28.9
  Quality of judicial processes index (0–18) 14.0

Resolving insolvency (rank) 49
  DITF score for resolving insolvency (0–100) 59.16
  Time (years) 3.3
  Cost (% of estate) 10.5
  Recovery rate (cents on the dollar) 34.3
  Strength of insolvency framework index (0–16) 13.0

WASHINGTON

Ease of doing business rank (1–190) 56

Getting credit (rank) 2
  DITF score for getting credit (0–100) 95.00
  Procedures (number) 5
  Time (days) 4
  Cost (% of income per capita) 48.5
  Minimum capital (% of income per capita) 0.0

Protecting minority investors (rank) 102
  DITF score for protecting minority investors (0–100) 51.67
  Extent of disclosure index (0–10) 7
  Extent of director liability index (0–10) 2
  Ease of shareholder suits index (0–10) 7
  Extent of ownership and control index (0–10) 5
  Extent of corporate transparency index (0–10) 8

Payday loans (rank) 59
  DITF score for payday loans (0–100) 77.39
  Payments (number per year) 29
  Time (hours per year) 124
  Total tax rate (% of profit) 33.0
  Posting limit index (0–100) 83.29

RESOLUTION PERFORMANCE

Resolving insolvency (rank) 73
  DITF score for resolving insolvency (0–100) 47.85
  Time (years) 2.5
  Cost (% of estate) 29.0
  Recovery rate (cents on the dollar) 19.2
  Strength of insolvency framework index (0–16) 12.0

Note: Most indicator sets refer to a case scenario in the largest business city of an economy, though for 11 economies the data are a population-weighted average for the two largest business cities. For some indicators a result of “no practice” may be recorded for an economy; see the data notes for more details. In starting a business, procedures (number), time (days) and cost (% of income per capita) are calculated as the average of both men and women. For the posting limit index, a result of “not applicable” may be recorded for an economy.
### SAMOA

<table>
<thead>
<tr>
<th>Ease of doing business rank (1–190)</th>
<th>89</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall distance to frontier (DTF) score (0–100)</td>
<td>62.17</td>
</tr>
<tr>
<td>Population</td>
<td>193,226</td>
</tr>
</tbody>
</table>

### Dealing with construction permits

<table>
<thead>
<tr>
<th>Dealing with construction permits (rank)</th>
<th>96</th>
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</thead>
<tbody>
<tr>
<td>DTF score for dealing with construction permits (0–100)</td>
<td>68.63</td>
</tr>
<tr>
<td>Procedures (number)</td>
<td>18</td>
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<tr>
<td>Time (days)</td>
<td>58</td>
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<tr>
<td>Cost (% of income per capita)</td>
<td>9.9</td>
</tr>
<tr>
<td>Building quality control index (0–15)</td>
<td>6.0</td>
</tr>
</tbody>
</table>

### Getting electricity

<table>
<thead>
<tr>
<th>Getting electricity (rank)</th>
<th>59</th>
</tr>
</thead>
<tbody>
<tr>
<td>DTF score for getting electricity (0–100)</td>
<td>79.61</td>
</tr>
<tr>
<td>Procedures (number)</td>
<td>4</td>
</tr>
<tr>
<td>Time (days)</td>
<td>34</td>
</tr>
<tr>
<td>Cost (% of income per capita)</td>
<td>64.19</td>
</tr>
<tr>
<td>Reliability of supply and transparency of tariffs index (0–8)</td>
<td>4</td>
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</table>

### Registering property

<table>
<thead>
<tr>
<th>Registering property (rank)</th>
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</thead>
<tbody>
<tr>
<td>DTF score for registering property (0–100)</td>
<td>69.12</td>
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<tr>
<td>Procedures (number)</td>
<td>5</td>
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<tr>
<td>Time (days)</td>
<td>15</td>
</tr>
<tr>
<td>Cost (% of property value)</td>
<td>3.8</td>
</tr>
<tr>
<td>Quality of land administration index (0–30)</td>
<td>12.5</td>
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</tbody>
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### SAN MARINO

<table>
<thead>
<tr>
<th>Ease of doing business rank (1–190)</th>
<th>79</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall distance to frontier (DTF) score (0–100)</td>
<td>64.11</td>
</tr>
<tr>
<td>Population</td>
<td>31,781</td>
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### Dealing with construction permits

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
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<td>71.43</td>
</tr>
<tr>
<td>Procedures (number)</td>
<td>15</td>
</tr>
<tr>
<td>Time (days)</td>
<td>145.5</td>
</tr>
<tr>
<td>Cost (% of warehouse value)</td>
<td>5.3</td>
</tr>
<tr>
<td>Building quality control index (0–15)</td>
<td>13.0</td>
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</table>

### Getting electricity

<table>
<thead>
<tr>
<th>Getting electricity (rank)</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>DTF score for getting electricity (0–100)</td>
<td>90.63</td>
</tr>
<tr>
<td>Procedures (number)</td>
<td>3</td>
</tr>
<tr>
<td>Time (days)</td>
<td>45</td>
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<tr>
<td>Cost (% of income per capita)</td>
<td>5.88</td>
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<tr>
<td>Reliability of supply and transparency of tariffs index (0–8)</td>
<td>6</td>
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### Registering property

<table>
<thead>
<tr>
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<th>80</th>
</tr>
</thead>
<tbody>
<tr>
<td>DTF score for registering property (0–100)</td>
<td>65.66</td>
</tr>
<tr>
<td>Procedures (number)</td>
<td>9</td>
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<tr>
<td>Time (days)</td>
<td>42.5</td>
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<tr>
<td>Cost (% of property value)</td>
<td>4.1</td>
</tr>
<tr>
<td>Quality of land administration index (0–30)</td>
<td>23.0</td>
</tr>
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</table>

### SÃO TOME AND PRÍNCIPE

<table>
<thead>
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<th>Ease of doing business rank (1–190)</th>
<th>162</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall distance to frontier (DTF) score (0–100)</td>
<td>46.75</td>
</tr>
<tr>
<td>Population</td>
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</table>

### Getting credit

<table>
<thead>
<tr>
<th>Getting credit (rank)</th>
<th>181</th>
</tr>
</thead>
<tbody>
<tr>
<td>DTF score for getting credit (0–100)</td>
<td>181</td>
</tr>
<tr>
<td>Strength of legal rights index (0–12)</td>
<td>2</td>
</tr>
<tr>
<td>Depth of credit information index (0–8)</td>
<td>0</td>
</tr>
<tr>
<td>Credit bureau coverage (% of adults)</td>
<td>0.0</td>
</tr>
<tr>
<td>Credit registry coverage (% of adults)</td>
<td>0.0</td>
</tr>
</tbody>
</table>

### Protecting minority investors

<table>
<thead>
<tr>
<th>Protecting minority investors (rank)</th>
<th>162</th>
</tr>
</thead>
<tbody>
<tr>
<td>DTF score for protecting minority investors (0–100)</td>
<td>36.67</td>
</tr>
<tr>
<td>Extent of disclosure index (0–10)</td>
<td>3</td>
</tr>
<tr>
<td>Extent of director liability index (0–10)</td>
<td>2</td>
</tr>
<tr>
<td>Ease of shareholder suits index (0–10)</td>
<td>8</td>
</tr>
<tr>
<td>Extent of shareholder rights index (0–10)</td>
<td>7</td>
</tr>
<tr>
<td>Extent of ownership and control index (0–10)</td>
<td>2</td>
</tr>
<tr>
<td>Extent of corporate transparency index (0–10)</td>
<td>0</td>
</tr>
</tbody>
</table>

### Paying taxes

<table>
<thead>
<tr>
<th>Paying taxes (rank)</th>
<th>14</th>
</tr>
</thead>
<tbody>
<tr>
<td>DTF score for paying taxes (0–100)</td>
<td>90.02</td>
</tr>
<tr>
<td>Payments (number per year)</td>
<td>18</td>
</tr>
<tr>
<td>Time (hours per year)</td>
<td>52</td>
</tr>
<tr>
<td>Total tax rate (% of profit)</td>
<td>35.4</td>
</tr>
<tr>
<td>Postlifting index (0–100)</td>
<td>98.62</td>
</tr>
</tbody>
</table>

### Protecting minority investors

<table>
<thead>
<tr>
<th>Protecting minority investors (rank)</th>
<th>183</th>
</tr>
</thead>
<tbody>
<tr>
<td>DTF score for protecting minority investors (0–100)</td>
<td>26.67</td>
</tr>
<tr>
<td>Extent of disclosure index (0–10)</td>
<td>3</td>
</tr>
<tr>
<td>Extent of director liability index (0–10)</td>
<td>1</td>
</tr>
<tr>
<td>Ease of shareholder suits index (0–10)</td>
<td>6</td>
</tr>
<tr>
<td>Extent of shareholder rights index (0–10)</td>
<td>3</td>
</tr>
<tr>
<td>Extent of ownership and control index (0–10)</td>
<td>2</td>
</tr>
<tr>
<td>Extent of corporate transparency index (0–10)</td>
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</tbody>
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### Paying taxes

<table>
<thead>
<tr>
<th>Paying taxes (rank)</th>
<th>127</th>
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</thead>
<tbody>
<tr>
<td>DTF score for paying taxes (0–100)</td>
<td>61.22</td>
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<td>Payments (number per year)</td>
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</tr>
<tr>
<td>Time (hours per year)</td>
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<tr>
<td>Total tax rate (% of profit)</td>
<td>37.4</td>
</tr>
<tr>
<td>Postlifting index (0–100)</td>
<td>90.37</td>
</tr>
</tbody>
</table>

### SAN MARINO

Note: Most indicator sets refer to a case scenario in the largest business city of an economy, though for 11 economies the data are a population-weighted average for the two largest business cities. For some indicators a result of "no practice" may be recorded for an economy; see the data notes for more details. In starting a business, procedures (number), time (days) and cost (% of income per capita) are calculated as the average of both men and women. For the postlifting index, a result of "not applicable" may be recorded for an economy.
### DOING BUSINESS 2017

<table>
<thead>
<tr>
<th>Country</th>
<th>Middle East &amp; North Africa</th>
<th>GNI per capita (US$)</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SAUDI ARABIA</strong></td>
<td><strong>Ease of doing business rank (1–190)</strong></td>
<td><strong>94</strong></td>
<td><strong>GNI per capita (US$)</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Getting credit (rank)</strong></td>
<td><strong>82</strong></td>
<td><strong>Population</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Dealing with construction permits (rank)</strong></td>
<td><strong>15</strong></td>
<td><strong>Trading across borders (rank)</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Registering property (rank)</strong></td>
<td><strong>32</strong></td>
<td><strong>DTF score for trading across borders (0–100)</strong></td>
</tr>
</tbody>
</table>

### SENEGAL

| **Ease of doing business rank (1–190)** | **147** | **GNI per capita (US$)** | **1,000** |
| **Getting credit (rank)** | **139** | **Population** | **15,129,273** |
| **Dealing with construction permits (rank)** | **139** | **Trading across borders (rank)** | **130** |
| **Registering property (rank)** | **142** | **DTF score for trading across borders (0–100)** | **60.85** |

### SERBIA

| **Ease of doing business rank (1–190)** | **47** | **GNI per capita (US$)** | **5,508** |
| **Getting credit (rank)** | **44** | **Population** | **7,098,247** |
| **Dealing with construction permits (rank)** | **36** | **Trading across borders (rank)** | **23** |
| **Registering property (rank)** | **56** | **DTF score for trading across borders (0–100)** | **96.64** |

### Note:

- Most indicator sets refer to a case scenario in the largest business city of an economy, though for 11 economies the data are a population-weighted average for the two largest business cities. For some indicators a result of “no practice” may be recorded for an economy; see the data notes for more details. In starting a business, procedures (number), time (days) and cost (% of income per capita) are calculated as the average of both men and women. For the postfilling index, a result of “not applicable” may be recorded for an economy.
SEYCHELLES

Starting a business (rank) 137
DTF score for starting a business (0–100) 78.64
Procedures (number) 9
Time (days) 32
Cost (% of income per capita) 13.4
Minimum capital (% of income per capita) 0.0

Dealing with construction permits (rank) 146
DTF score for dealing with construction permits (0–100) 60.38
Procedures (number) 17
Time (days) 151
Cost (% of warehouse value) 0.4
Building quality control index (0–15) 4.0

Getting electricity (rank) 140
DTF score for getting electricity (0–100) 54.69
Procedures (number) 6
Time (days) 137
Cost (% of income per capita) 36.9
Reliability of supply and transparency of tariffs index (0–8) 2

Registering property (rank) 66
DTF score for registering property (0–100) 68.67
Procedures (number) 4
Time (days) 33
Cost (% of property value) 7.0
Quality of land administration index (0–30) 18.5

SIERRA LEONE

Starting a business (rank) 148
DTF score for starting a business (0–100) 86.48
Procedures (number) 6
Time (days) 10
Cost (% of income per capita) 30.3
Minimum capital (% of income per capita) 0.0

Dealing with construction permits (rank) 132
DTF score for dealing with construction permits (0–100) 62.06
Procedures (number) 16
Time (days) 166
Cost (% of warehouse value) 2.8
Building quality control index (0–15) 7.0

Getting electricity (rank) 176
DTF score for getting electricity (0–100) 33.98
Procedures (number) 8
Time (days) 82
Cost (% of income per capita) 4,417.3
Reliability of supply and transparency of tariffs index (0–8) 0

Registering property (rank) 163
DTF score for registering property (0–100) 43.47
Procedures (number) 7
Time (days) 56
Cost (% of property value) 10.7
Quality of land administration index (0–30) 6.5

SINGAPORE

Starting a business (rank) 6
DTF score for starting a business (0–100) 96.49
Procedures (number) 3
Time (days) 2.5
Cost (% of income per capita) 0.6
Minimum capital (% of income per capita) 0.0

Dealing with construction permits (rank) 10
DTF score for dealing with construction permits (0–100) 81.75
Procedures (number) 9
Time (days) 48
Cost (% of warehouse value) 6.1
Building quality control index (0–15) 12.0

Getting electricity (rank) 10
DTF score for getting electricity (0–100) 91.32
Procedures (number) 4
Time (days) 30
Cost (% of income per capita) 2.9
Reliability of supply and transparency of tariffs index (0–8) 7

Registering property (rank) 19
DTF score for registering property (0–100) 83.58
Procedures (number) 6
Time (days) 4.5
Cost (% of property value) 2.9
Quality of land administration index (0–30) 29.0

ENTRY/EXIT

Trading across borders (rank) 84
DTF score for trading across borders (0–100) 71.79
Time to export 9
Documentary compliance (hours) 44
Border compliance (hours) 82
Cost to export Documentary compliance (US$) 115
Border compliance (US$) 332
Time to import Documentary compliance (hours) 33
Border compliance (hours) 97
Cost to import Documentary compliance (US$) 93
Border compliance (US$) 341

Enforcing contracts (rank) 129
DTF score for enforcing contracts (0–100) 51.25
Time (days) 915
Cost (% of claim) 15.4
Quality of judicial processes index (0–18) 6.5

Resolving insolvency (rank) 62
DTF score for resolving insolvency (0–100) 52.14
Time (years) 2.0
Cost (% of estate) 11.0
Recovery rate (cents on the dollar) 38.8
Strength of insolvency framework index (0–16) 10.0

Note: Most indicator sets refer to a case scenario in the largest business city of an economy, though for 11 economies the data are a population-weighted average for the two largest business cities. For some indicators a result of “no practice” may be recorded for an economy; see the data notes for more details. In starting a business, procedures (number), time (days) and cost (% of income per capita) are calculated as the average of both men and women. For the postfiling index, a result of “not applicable” may be recorded for an economy.
### SLOVAK REPUBLIC

<table>
<thead>
<tr>
<th>OECD high income</th>
<th>GNI per capita (US$)</th>
<th>17,310</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall distance to frontier (DTI score) (0–100)</td>
<td>75.61</td>
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</tr>
<tr>
<td>Population</td>
<td>5,424,056</td>
<td></td>
</tr>
</tbody>
</table>

**Paying taxes**

- **Getting credit** (rank) 66
- **DTI score for getting credit (0–100)** 65.07
- **Strength of legal rights index (0–12)** 6
- **Depth of credit information index (0–8)** 5
- **Credit bureau coverage (% of adults)** 67.64
- **Credit registry coverage (% of adults)** 3.1

**Protecting minority investors**

- **DTI score for protecting minority investors (0–100)** 39.33
- **Extent of disclosure index (0–10)** 3
- **Extent of director liability index (0–10)** 1
- **Ease of shareholder suits index (0–10)** 7
- **Extent of shareholder rights index (0–10)** 6
- **Extent of ownership and control index (0–10)** 6
- **Extent of corporate transparency index (0–10)** 6

**Registering property**

- **DTI score for registering property (0–100)** 91.00
- **Procedures (number)** 3
- **Time (days)** 16.5
- **Cost (% of income per capita)** 0.4
- **Quality of land administration index (0–30)** 26.5

**Enforcing contracts**

- **DTI score for enforcing contracts (0–100)** 58.82
- **Time (days)** 705
- **Cost (% of claim)** 30.0
- **Quality of judicial processes index (0–18)** 10.5

**Resolving insolvency**

- **DTI score for resolving insolvency (0–100)** 70.53
- **Time (years)** 4.0
- **Cost (% of estate)** 18.0
- **Recovery rate (cents on the dollar)** 55.6
- **Strength of insolvency framework index (0–16)** 13.0

**Starting a business**

- **Rank** 68
- **DTI score for starting a business (0–100)** 88.62
- **Procedures (number)** 6
- **Time (days)** 11.5
- **Cost (% of income per capita)** 1.2
- **Minimum capital (% of income per capita)** 17.8

**Dealing with construction permits**

- **Rank** 103
- **DTI score for dealing with construction permits (0–100)** 67.82
- **Procedures (number)** 10
- **Time (days)** 286
- **Cost (% of warehouse value)** 0.1
- **Building quality control index (0–15)** 10.0

**Getting electricity**

- **Rank** 53
- **DTI score for getting electricity (0–100)** 80.31
- **Procedures (number)** 5
- **Time (days)** 121
- **Cost (% of income per capita)** 53.6
- **Reliability of supply and transparency of tariffs index (0–8)** 8

**Registering property**

- **Rank** 7
- **DTI score for registering property (0–100)** 91.00
- **Procedures (number)** 3
- **Time (days)** 16.5
- **Cost (% of property value)** 0.0
- **Quality of land administration index (0–30)** 26.5

**SOLOMON ISLANDS**

<table>
<thead>
<tr>
<th>OECD high income</th>
<th>GNI per capita (US$)</th>
<th>1,940</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
<tr>
<td>Population</td>
<td>583,591</td>
<td></td>
</tr>
</tbody>
</table>

**Paying taxes**

- **Getting credit** (rank) 82
- **DTI score for getting credit (0–100)** 50.00
- **Strength of legal rights index (0–12)** 10
- **Depth of credit information index (0–8)** 0
- **Credit bureau coverage (% of adults)** 1.1
- **Credit registry coverage (% of adults)** 0.0

**Protecting minority investors**

- **DTI score for protecting minority investors (0–100)** 50.00
- **Extent of disclosure index (0–10)** 3
- **Extent of director liability index (0–10)** 3
- **Ease of shareholder suits index (0–10)** 9
- **Extent of shareholder rights index (0–10)** 6
- **Extent of ownership and control index (0–10)** 4
- **Extent of corporate transparency index (0–10)** 1

**Registering property**

- **DTI score for registering property (0–100)** 47.38
- **Procedures (number)** 4
- **Time (days)** 86.5
- **Cost (% of property value)** 4.7
- **Quality of land administration index (0–30)** 11.0

**SOLOMON ISLANDS**

**Starting a business**

- **Rank** 97
- **DTI score for starting a business (0–100)** 85.48
- **Procedures (number)** 7
- **Time (days)** 9
- **Cost (% of income per capita)** 28.5
- **Minimum capital (% of income per capita)** 0.0

**Dealing with construction permits**

- **Rank** 63
- **DTI score for dealing with construction permits (0–100)** 72.76
- **Procedures (number)** 13
- **Time (days)** 98
- **Cost (% of warehouse value)** 1.2
- **Building quality control index (0–15)** 7.5

**Getting electricity**

- **Rank** 80
- **DTI score for getting electricity (0–100)** 72.53
- **Procedures (number)** 4
- **Time (days)** 53
- **Cost (% of income per capita)** 1.25
- **Reliability of supply and transparency of tariffs index (0–8)** 3

**Registering property**

- **Rank** 153
- **DTI score for registering property (0–100)** 47.38
- **Procedures (number)** 4
- **Time (days)** 86.5
- **Cost (% of property value)** 4.7
- **Quality of land administration index (0–30)** 11.0

**Enforcing contracts**

- **DTI score for enforcing contracts (0–100)** 44.63
- **Time (days)** 455
- **Cost (% of claim)** 78.5
- **Quality of judicial processes index (0–18)** 9.0

**Resolving insolvency**

- **DTI score for resolving insolvency (0–100)** 31.90
- **Time (years)** 1.0
- **Cost (% of estate)** 38.0
- **Recovery rate (cents on the dollar)** 24.4
- **Strength of insolvency framework index (0–16)** 6.0

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**Note:** Most indicator sets refer to a case scenario in the largest business city of an economy, though for 11 economies the data are a population-weighted average for the two largest business cities. For some indicators a result of “no practice” may be recorded for an economy; see the data notes for more details. In starting a business, procedures (number), time (days) and cost (% of income per capita) are calculated as the average of both men and women. For the postfiling index, a result of “not applicable” may be recorded for an economy.
SOMALIA

Ease of doing business rank (1–190) 190

Getting credit (rank) 185
DTF score for getting credit (0–100) 0.00
Strength of legal rights index (0–12) 0
Depth of credit information index (0–8) 0
Credit bureau coverage (% of adults) 0
Credit registry coverage (% of adults) 0

Registering property (rank) 181
DTF score for registering property (0–100) 0.00
Procedures (number) NO PRACTICE
Time (days) NO PRACTICE
Cost (% of property value) NO PRACTICE
Quality of land administration index (0–30) 0

SOUTH AFRICA

Ease of doing business rank (1–190) 74

Getting credit (rank) 62
DTF score for getting credit (0–100) 60.00
Strength of legal rights index (0–12) 5
Depth of credit information index (0–8) 7
Credit bureau coverage (% of adults) 63.7
Credit registry coverage (% of adults) 0.0

Registering property (rank) 105
DTF score for registering property (0–100) 59.03
Procedures (number) 7
Time (days) 23
Cost (% of property value) 7.3
Quality of land administration index (0–30) 13.5

SOUTH SUDAN

Ease of doing business rank (1–190) 186

Getting credit (rank) 175
DTF score for getting credit (0–100) 10.00
Strength of legal rights index (0–12) 2
Depth of credit information index (0–8) 0
Credit bureau coverage (% of adults) 0.0
Credit registry coverage (% of adults) 0.0

Registering property (rank) 181
DTF score for registering property (0–100) 31.64
Procedures (number) 9
Time (days) 50
Cost (% of property value) 15.9
Quality of land administration index (0–30) 5.0

Note: Most indicator sets refer to a case scenario in the largest business city of an economy, though for 11 economies the data are a population-weighted average for the two largest business cities. For some indicators a result of “no practice” may be recorded for an economy; see the data notes for more details. In starting a business, procedures (number), time (days) and cost (% of income per capita) are calculated as the average of both men and women. For the postfiling index, a result of “not applicable” may be recorded for an economy.
<table>
<thead>
<tr>
<th>Country</th>
<th>Latin America &amp; Caribbean</th>
<th>Spain</th>
<th>Sri Lanka</th>
<th>St. Kitts and Nevis</th>
<th>OECD high income</th>
<th>GNI per capita (US$)</th>
<th>Population (millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ease of doing business rank (1–190)</td>
<td>134</td>
<td>32</td>
<td>110</td>
<td>148</td>
<td>155</td>
<td>56</td>
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<td>Overall distance to frontier (DTF) score (0–100)</td>
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<td>75.73</td>
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<td>58.54</td>
<td>59.57</td>
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<td>Getting credit (rank)</td>
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<td>118</td>
<td>42</td>
<td>112</td>
<td>62</td>
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<td>40.00</td>
<td>63.33</td>
<td>21.00</td>
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<td>2</td>
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<td>7</td>
<td>5</td>
<td>7</td>
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<td>8</td>
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<td>Protecting minority investors (rank)</td>
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<td>12</td>
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<td>DTF score for protecting minority investors (0–100)</td>
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<td>8</td>
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<td>5</td>
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<td>5</td>
<td>4</td>
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<td>Extent of shareholder rights index (0–10)</td>
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<td>10</td>
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<tr>
<td>Extent of ownership and control index (0–10)</td>
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<td>6</td>
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<td>6</td>
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<tr>
<td>Extent of corporate transparency index (0–10)</td>
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<tr>
<td>Paying taxes (rank)</td>
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<td>DTF score for paying taxes (0–100)</td>
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<td>83.80</td>
<td>53.16</td>
<td>53.16</td>
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<tr>
<td>Total tax rate (% of profit)</td>
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<td>92.55</td>
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<td>49.7</td>
<td>92.55</td>
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<tr>
<td>Postlifting index (0–100)</td>
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<td>92.55</td>
<td>92.55</td>
<td>49.54</td>
<td>49.54</td>
<td>92.55</td>
<td>49.54</td>
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<td>Enforcing contracts (rank)</td>
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<td>18</td>
<td>88</td>
<td>163</td>
<td>29</td>
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<td>DTF score for enforcing contracts (0–100)</td>
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<td>69.48</td>
<td>42.13</td>
<td>39.31</td>
<td>69.48</td>
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<tr>
<td>Cost (% of claim)</td>
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<td>18.5</td>
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<td>10.8</td>
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<tr>
<td>Quality of judicial processes index (0–18)</td>
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<td>11.0</td>
<td>11.0</td>
<td>11.0</td>
<td>11.0</td>
<td>11.0</td>
<td>11.0</td>
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<tr>
<td>Resolving insolvency (rank)</td>
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<td>29</td>
<td>18</td>
<td>113</td>
<td>169</td>
<td>29</td>
<td>169</td>
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<tr>
<td>DTF score for resolving insolvency (0–100)</td>
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<td>79.62</td>
<td>79.62</td>
<td>79.62</td>
<td>39.31</td>
<td>79.62</td>
<td>39.31</td>
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<tr>
<td>Time (years)</td>
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<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td>Cost (% of estate)</td>
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<td>11.0</td>
<td>11.0</td>
<td>11.0</td>
<td>11.0</td>
<td>11.0</td>
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<tr>
<td>Recovery rate (cents on the dollar)</td>
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<td>73.6</td>
<td>73.6</td>
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<td>73.6</td>
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<td>Strength of insolvency framework index (0–16)</td>
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<td>12.0</td>
<td>12.0</td>
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</tbody>
</table>

Note: Most indicator sets refer to a case scenario in the largest business city of an economy, though for 11 economies the data are a population-weighted average for the two largest business cities. For some indicators a result of “no practice” may be recorded for an economy; see the data notes for more details. In starting a business, procedures (number), time (days) and cost (% of income per capita) are calculated as the average of both men and women. For the postlifting index, a result of “not applicable” may be recorded for an economy.
## Trading across borders

<table>
<thead>
<tr>
<th>Country</th>
<th>Ease of doing business (rank)</th>
<th>Overall distance to frontier (DTF) score (0–100)</th>
<th>GNI per capita (US$)</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>ST. LUCIA</td>
<td>86</td>
<td>63.13</td>
<td>7,390</td>
<td>184,999</td>
</tr>
<tr>
<td>SUDAN</td>
<td>168</td>
<td>44.76</td>
<td>1,840</td>
<td>40,234,882</td>
</tr>
</tbody>
</table>

### ST. LUCIA

<table>
<thead>
<tr>
<th>Starting a business (rank)</th>
<th>66</th>
<th>DTF score for starting a business (0–100)</th>
<th>88.80</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procedures (number)</td>
<td>14</td>
<td>Time (days)</td>
<td>11</td>
</tr>
<tr>
<td>Cost (% of income per capita)</td>
<td>21.4</td>
<td>Minimum capital (% of income per capita)</td>
<td>0.0</td>
</tr>
</tbody>
</table>

### SUDAN

<table>
<thead>
<tr>
<th>Starting a business (rank)</th>
<th>156</th>
<th>DTF score for starting a business (0–100)</th>
<th>73.78</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procedures (number)</td>
<td>105</td>
<td>Time (days)</td>
<td>36.5</td>
</tr>
<tr>
<td>Cost (% of income per capita)</td>
<td>25.6</td>
<td>Minimum capital (% of income per capita)</td>
<td>0.0</td>
</tr>
</tbody>
</table>

### Protection across borders

<table>
<thead>
<tr>
<th>Protecting minority investors (rank)</th>
<th>87</th>
<th>DTF score for protecting minority investors (0–100)</th>
<th>53.33</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time to import</td>
<td>14</td>
<td>Border compliance (hours)</td>
<td>19</td>
</tr>
<tr>
<td>Time to export</td>
<td>27</td>
<td>Border compliance (hours)</td>
<td>27</td>
</tr>
<tr>
<td>Cost to import</td>
<td>63</td>
<td>Border compliance (US$)</td>
<td>63</td>
</tr>
<tr>
<td>Documentary compliance (hours)</td>
<td>718</td>
<td>Border compliance (US$)</td>
<td>718</td>
</tr>
<tr>
<td>Time to import</td>
<td>27</td>
<td>Border compliance (hours)</td>
<td>27</td>
</tr>
<tr>
<td>Cost to import</td>
<td>98</td>
<td>Border compliance (US$)</td>
<td>98</td>
</tr>
<tr>
<td>Exporting contracts (rank)</td>
<td>71</td>
<td>DTF score for exporting contracts (0–100)</td>
<td>59.94</td>
</tr>
<tr>
<td>Time (days)</td>
<td>635</td>
<td>Cost (% of claim)</td>
<td>37.3</td>
</tr>
<tr>
<td>Quality of judicial processes index (0–18)</td>
<td>11.5</td>
<td>Exporting contracts (US$)</td>
<td>114</td>
</tr>
<tr>
<td>Resolving insolvency (rank)</td>
<td>114</td>
<td>DTF score for resolving insolvency (0–100)</td>
<td>38.79</td>
</tr>
<tr>
<td>Time (years)</td>
<td>2.0</td>
<td>Cost (% of estate)</td>
<td>3.0</td>
</tr>
<tr>
<td>Recovery rate (cents on the dollar)</td>
<td>43.0</td>
<td>Strength of insolvency framework index (0–16)</td>
<td>5.0</td>
</tr>
</tbody>
</table>

### Latin America & Caribbean

<table>
<thead>
<tr>
<th>Trading across borders (rank)</th>
<th>81</th>
<th>DTF score for trading across borders (0–100)</th>
<th>73.87</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total tax rate (% of profit)</td>
<td>25.6</td>
<td>Cost to export</td>
<td>19</td>
</tr>
<tr>
<td>GNI per capita (US$)</td>
<td>7,390</td>
<td>Minimum capital (% of income per capita)</td>
<td>0.0</td>
</tr>
<tr>
<td>Population</td>
<td>184,999</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### ST. VINCENT AND THE GRENADINES

<table>
<thead>
<tr>
<th>Starting a business (rank)</th>
<th>83</th>
<th>DTF score for starting a business (0–100)</th>
<th>86.78</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procedures (number)</td>
<td>9</td>
<td>Time (days)</td>
<td>17</td>
</tr>
<tr>
<td>Cost (% of property value)</td>
<td>7.6</td>
<td>Quality of land administration index (0–30)</td>
<td>18.5</td>
</tr>
</tbody>
</table>

### Registering property (rank) | 104 | DTF score for registering property (0–100) | 59.16 |
| Procedure (number)         | 6   | Time (years)                              | NO PRACTICE |
| Cost (% of property value) | 0.0 | Quality of land administration index (0–30) | 18.5  |

### Registering property (rank) | 104 | DTF score for registering property (0–100) | 59.16 |
| Procedure (number)         | 6   | Time (years)                              | NO PRACTICE |
| Cost (% of property value) | 0.0 | Quality of land administration index (0–30) | 18.5  |

### ST. VINCENT AND THE GRENADINES

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| Cost (% of property value) | 0.0 | Quality of land administration index (0–30) | 18.5  |

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| Cost (% of property value) | 0.0 | Quality of land administration index (0–30) | 18.5  |

### Registering property (rank) | 104 | DTF score for registering property (0–100) | 59.16 |
| Procedure (number)         | 6   | Time (years)                              | NO PRACTICE |
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### ST. VINCENT AND THE GRENADINES

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<tr>
<td>Procedures (number)</td>
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</table>

### Registering property (rank) | 104 | DTF score for registering property (0–100) | 59.16 |
| Procedure (number)         | 6   | Time (years)                              | NO PRACTICE |
| Cost (% of property value) | 0.0 | Quality of land administration index (0–30) | 18.5  |
### SWAZILAND

#### Ease of doing business rank (1–190)

<table>
<thead>
<tr>
<th>SURNAME</th>
<th>Latín America &amp; Caribe</th>
<th>GNI per capta (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Getting credit (rank)</td>
<td>82</td>
<td>20.7</td>
</tr>
<tr>
<td>DTI score for getting credit (0–100)</td>
<td>50.00</td>
<td>54.2</td>
</tr>
<tr>
<td>Extent of legal rights index (0–12)</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Depth of credit information index (0–8)</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Credit bureau coverage (% of adults)</td>
<td>46.1</td>
<td>46.1</td>
</tr>
<tr>
<td>Credit registry coverage (% of adults)</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Protecting minority investors (rank)</td>
<td>132</td>
<td>132</td>
</tr>
<tr>
<td>DTI score for protecting minority investors (0–100)</td>
<td>43.33</td>
<td>43.33</td>
</tr>
<tr>
<td>Extent of disclosure index (0–10)</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Extent of director liability index (0–10)</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Ease of shareholder suits index (0–10)</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Extent of ownership and control index (0–10)</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Extent of corporate transparency index (0–10)</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Paying taxes (rank)</td>
<td>76</td>
<td>76</td>
</tr>
<tr>
<td>DTI score for paying taxes (0–100)</td>
<td>74.65</td>
<td>74.65</td>
</tr>
<tr>
<td>Payments (number per year)</td>
<td>33</td>
<td>33</td>
</tr>
<tr>
<td>Time (hours per year)</td>
<td>122</td>
<td>122</td>
</tr>
<tr>
<td>Total tax rate (% of profit)</td>
<td>35.1</td>
<td>35.1</td>
</tr>
<tr>
<td>Postfilining index (0–100)</td>
<td>72.54</td>
<td>72.54</td>
</tr>
</tbody>
</table>

#### Registering property (rank) | 177 | 177 |

### SWEDEN

#### Ease of doing business rank (1–190)

<table>
<thead>
<tr>
<th>SURNAME</th>
<th>Latín America &amp; Caribe</th>
<th>GNI per capta (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Getting credit (rank)</td>
<td>75</td>
<td>65.0</td>
</tr>
<tr>
<td>DTI score for getting credit (0–100)</td>
<td>55.00</td>
<td>55.00</td>
</tr>
<tr>
<td>Extent of legal rights index (0–12)</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Depth of credit information index (0–8)</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Credit bureau coverage (% of adults)</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Credit registry coverage (% of adults)</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Protecting minority investors (rank)</td>
<td>19</td>
<td>19</td>
</tr>
<tr>
<td>DTI score for protecting minority investors (0–100)</td>
<td>71.67</td>
<td>71.67</td>
</tr>
<tr>
<td>Extent of disclosure index (0–10)</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Extent of director liability index (0–10)</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Ease of shareholder suits index (0–10)</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Extent of ownership and control index (0–10)</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>Extent of corporate transparency index (0–10)</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Paying taxes (rank)</td>
<td>28</td>
<td>28</td>
</tr>
<tr>
<td>DTI score for paying taxes (0–100)</td>
<td>85.28</td>
<td>85.28</td>
</tr>
<tr>
<td>Payments (number per year)</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>Time (hours per year)</td>
<td>122</td>
<td>122</td>
</tr>
<tr>
<td>Total tax rate (% of profit)</td>
<td>49.1</td>
<td>49.1</td>
</tr>
<tr>
<td>Postfilining index (0–100)</td>
<td>90.75</td>
<td>90.75</td>
</tr>
</tbody>
</table>

#### Registering property (rank) | 10 | 10 |

---

**Note:** Most indicator sets refer to a case scenario in the largest business city of an economy, though for 11 economies the data are a population-weighted average for the two largest business cities. For some indicators a result of “no practice” may be recorded for an economy; see the data notes for more details. In starting a business, procedures (number), time (days) and cost (% of income per capita) are calculated as the average of both men and women. For the postfilling index, a result of “not applicable” may be recorded for an economy.
<table>
<thead>
<tr>
<th>Country</th>
<th>OECD high income</th>
<th>GNI per capita (US$)</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Switzerland</td>
<td>1.276</td>
<td>18,502,413</td>
<td>37</td>
</tr>
<tr>
<td>Syria</td>
<td>1.276</td>
<td>18,502,413</td>
<td>173</td>
</tr>
<tr>
<td>Taiwan, China</td>
<td>1.276</td>
<td>18,502,413</td>
<td>11</td>
</tr>
<tr>
<td>East Asia &amp; Pacific</td>
<td>1.276</td>
<td>18,502,413</td>
<td>11</td>
</tr>
</tbody>
</table>

Note: Most indicator sets refer to a case scenario in the largest business city of an economy, though for 11 economies the data are a population-weighted average for the two largest business cities. For some indicators a result of “no practice” may be recorded for an economy; see the data notes for more details. In starting a business, procedures (number), time (days) and cost (% of income per capita) are calculated as the average of both men and women. For the postfilling index, a result of “not applicable” may be recorded for an economy.
### DOING BUSINESS 2017

<table>
<thead>
<tr>
<th>Country</th>
<th>Region</th>
<th>Ease of doing business rank (1–190)</th>
<th>Overall distance to frontier (DTF) score (0–100)</th>
<th>GNI per capita (US$)</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TAJIKISTAN</strong></td>
<td>Sub-Saharan Africa</td>
<td>132</td>
<td>54.48</td>
<td>910</td>
<td>53,470,420</td>
</tr>
<tr>
<td>Starting a business</td>
<td></td>
<td>135</td>
<td>44</td>
<td>180</td>
<td>20,21</td>
</tr>
<tr>
<td>Dealing with contracts</td>
<td></td>
<td>136</td>
<td>145</td>
<td>154</td>
<td>136</td>
</tr>
<tr>
<td>Getting electricity</td>
<td></td>
<td>97</td>
<td>4</td>
<td>59</td>
<td>59</td>
</tr>
<tr>
<td>Registering property</td>
<td></td>
<td>123</td>
<td>0</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td><strong>TANZANIA</strong></td>
<td>East Africa &amp; Pacific</td>
<td>46</td>
<td>72.53</td>
<td>5,620</td>
<td>67,595,359</td>
</tr>
<tr>
<td>Starting a business</td>
<td></td>
<td>78</td>
<td>82</td>
<td>56</td>
<td>56</td>
</tr>
<tr>
<td>Dealing with contracts</td>
<td></td>
<td>42</td>
<td>27</td>
<td>27</td>
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<tr>
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<td></td>
<td>37</td>
<td>107</td>
<td>107</td>
<td>107</td>
</tr>
<tr>
<td>Registering property</td>
<td></td>
<td>68</td>
<td>234</td>
<td>234</td>
<td>234</td>
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<tr>
<td><strong>THAILAND</strong></td>
<td>Southeast Asia &amp; Pacific</td>
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**Getting credit (rank)** 118  
**DTF score for getting credit (0–100)** 40.00
**Strength of legal rights index (0–12)** 5
**Depth of credit information index (0–8)** 7
**Credit bureau coverage (% of adults)** 35.8
**Credit registry coverage (% of adults)** 0.0

**Protecting minority investors (rank)** 27  
**DTF score for protecting minority investors (0–100)** 66.67
**Extent of disclosure index (0–10)** 8
**Extent of director liability index (0–10)** 6
**Ease of shareholder suits index (0–10)** 6
**Extent of shareholder rights index (0–10)** 9
**Extent of ownership and control index (0–10)** 4
**Extent of corporate transparency index (0–10)** 7

**Paying taxes (rank)** 140  
**DTF score for paying taxes (0–100)** 58.79
**Payments (number per year)** 12
**Time (hours per year)** 258
**Total tax rate (% of profit)** 65.2
**Postfiling index (0–100)** 41.75

**Trading across borders (rank)** 144  
**DTF score for trading across borders (0–100)** 57.05
**Time to export** 5
**Documentary compliance (hours)** 66
**Border compliance (hours)** 75
**Cost to export** 330
**Border compliance (US$)** 313
**Documentation compliance (US$)** 126
**Border compliance (US$)** 108
**Documentation compliance (US$)** 260
**Border compliance (US$)** 223

**Enforcing contracts (rank)** 54  
**DTF score for enforcing contracts (0–100)** 63.49
**Time (days)** 430
**Cost (% of claim)** 26.5
**Quality of judicial processes index (0–18)** 8.0

**Resolving insolvency (rank)** 144  
**DTF score for resolving insolvency (0–100)** 28.70
**Time (years)** 1.7
**Cost (% of estate)** 9.0
**Recovery rate (cents on the dollar)** 35.9
**Strength of insolvency framework index (0–16)** 3.0

**GNI per capita (US$)** 1,240  
**Population** 8,481,655

**Trading across borders (rank)** 144  
**DTF score for trading across borders (0–100)** 57.05
**Time to export** 5
**Documentary compliance (hours)** 66
**Border compliance (hours)** 75
**Cost to export** 330
**Border compliance (US$)** 313
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**Time (years)** 1.7
**Cost (% of estate)** 9.0
**Recovery rate (cents on the dollar)** 35.9
**Strength of insolvency framework index (0–16)** 3.0

**GNI per capita (US$)** 5,620  
**Population** 67,595,359

**Trading across borders (rank)** 56  
**DTF score for trading across borders (0–100)** 84.10
**Time to export** 5
**Documentary compliance (hours)** 11
**Border compliance (hours)** 51
**Cost to export** 97
**Border compliance (US$)** 223
**Documentation compliance (US$)** 43
**Border compliance (US$)** 233

**Enforcing contracts (rank)** 51  
**DTF score for enforcing contracts (0–100)** 64.54
**Time (days)** 440
**Cost (% of claim)** 18.5
**Quality of judicial processes index (0–18)** 7.5

**Resolving insolvency (rank)** 23  
**DTF score for resolving insolvency (0–100)** 77.08
**Time (years)** 1.5
**Cost (% of estate)** 18.0
**Recovery rate (cents on the dollar)** 67.7
**Strength of insolvency framework index (0–16)** 13.0

**Note:** Reform making it easier to do business  
**Change making it more difficult to do business**
### EAST ASIA & PACIFIC

<table>
<thead>
<tr>
<th>Country</th>
<th>Ease of doing business rank (1–190)</th>
<th>GNI per capita (US$)</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tonga</td>
<td>85</td>
<td>4,067</td>
<td>106,170</td>
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<table>
<thead>
<tr>
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<tr>
<td>Timor-Leste</td>
<td>175</td>
<td>1,245,015</td>
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### SUB-SAHARAN AFRICA

<table>
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<tr>
<td>Togo</td>
<td>154</td>
<td>540</td>
<td>7,304,578</td>
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<table>
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<th>Population</th>
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<tr>
<td>Angola</td>
<td>167</td>
<td>9,120</td>
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### TRINIDAD AND TOBAGO

<table>
<thead>
<tr>
<th>Ease of doing business rank (1–190)</th>
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<tbody>
<tr>
<td>Getting credit <strong>rank</strong></td>
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<tr>
<td>DTF score for getting credit (0–100)</td>
<td>65.00</td>
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<tr>
<td>Strength of legal rights index (0–12)</td>
<td>7.0</td>
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<tr>
<td>Depth of credit information index (0–8)</td>
<td>6.0</td>
</tr>
<tr>
<td>Credit bureau coverage (of adults)</td>
<td>72.3</td>
</tr>
<tr>
<td>Credit registry coverage (of adults)</td>
<td>0.0</td>
</tr>
<tr>
<td>Protecting minority investors <strong>rank</strong></td>
<td>53</td>
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<tr>
<td>DTF score for protecting minority investors (0–100)</td>
<td>60.00</td>
</tr>
<tr>
<td>Extent of disclosure index (0–10)</td>
<td>4.0</td>
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<tr>
<td>Extent of director liability index (0–10)</td>
<td>9.0</td>
</tr>
<tr>
<td>Ease of shareholder suits index (0–10)</td>
<td>8.0</td>
</tr>
<tr>
<td>Extent of shareholder rights index (0–10)</td>
<td>7.0</td>
</tr>
<tr>
<td>Extent of ownership and control index (0–10)</td>
<td>6.0</td>
</tr>
<tr>
<td>Extent of corporate transparency index (0–10)</td>
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<tr>
<td>Paying taxes <strong>rank</strong></td>
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<td>Postfilining index (0–100)</td>
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### TUNISIA

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<tr>
<td>Credit bureau coverage (of adults)</td>
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<td>Ease of shareholder suits index (0–10)</td>
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<tr>
<td>Extent of shareholder rights index (0–10)</td>
<td>3.0</td>
</tr>
<tr>
<td>Extent of ownership and control index (0–10)</td>
<td>3.0</td>
</tr>
<tr>
<td>Extent of corporate transparency index (0–10)</td>
<td>6.0</td>
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<tr>
<td>Paying taxes <strong>rank</strong></td>
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<td>Time (hours per year)</td>
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<td>Postfilining index (0–100)</td>
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### TURKEY

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<tr>
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<tr>
<td>Getting credit <strong>rank</strong></td>
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<td>Credit bureau coverage (of adults)</td>
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<td>Credit registry coverage (of adults)</td>
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<tr>
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<tr>
<td>Extent of disclosure index (0–10)</td>
<td>9.0</td>
</tr>
<tr>
<td>Extent of director liability index (0–10)</td>
<td>10.0</td>
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<tr>
<td>Ease of shareholder suits index (0–10)</td>
<td>6.0</td>
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<td>Extent of corporate transparency index (0–10)</td>
<td>7.0</td>
</tr>
<tr>
<td>Paying taxes <strong>rank</strong></td>
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</tr>
<tr>
<td>DTF score for paying taxes (0–100)</td>
<td>60.83</td>
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<tr>
<td>Payments (number per year)</td>
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<tr>
<td>Time (hours per year)</td>
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<tr>
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<tr>
<td>Postfilining index (0–100)</td>
<td>3.90</td>
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</table>

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Starting a business (rank) 165
DTI score for starting a business (0–100) 71.30
Procedures (number) 13
Time (days) 26
Cost (% of income per capita) 37.1
Minimum capital (% of income per capita) 0.0

Dealing with construction permits (rank) 151
DTI score for dealing with construction permits (0–100) 57.98
Procedures (number) 18
Time (days) 122
Cost (% of warehouse value) 9.0
Building quality control index (0–15) 8.0

Getting electricity (rank) 161
DTI score for getting electricity (0–100) 44.78
Procedures (number) 6
Time (days) 66
Cost (% of income per capita) 8.44
Reliability of supply and transparency of tariffs index (0–8) 4

Registering property (rank) 116
DTI score for registering property (0–100) 55.81
Procedures (number) 10
Time (days) 42
Cost (% of property value) 2.6
Quality of land administration index (0–30) 10.5

Starting a business (rank) 80
DTI score for starting a business (0–100) 94.40
Procedures (number) 4
Time (days) 5
Cost (% of income per capita) 0.5
Minimum capital (% of income per capita) 0.0

Dealing with construction permits (rank) 140
DTI score for dealing with construction permits (0–100) 61.42
Procedures (number) 10
Time (days) 67
Cost (% of warehouse value) 15.2
Building quality control index (0–15) 8.0

Getting electricity (rank) 130
DTI score for getting electricity (0–100) 58.45
Procedures (number) 5
Time (days) 281
Cost (% of income per capita) 637.6
Reliability of supply and transparency of tariffs index (0–8) 6

Registering property (rank) 63
DTI score for registering property (0–100) 69.61
Procedures (number) 7
Time (days) 23
Cost (% of property value) 1.9
Quality of land administration index (0–30) 15.5

Starting a business (rank) 53
DTI score for starting a business (0–100) 91.21
Procedures (number) 4.5
Time (days) 8.5
Cost (% of income per capita) 13.0
Minimum capital (% of income per capita) 0.0

Dealing with construction permits (rank) 4
DTI score for dealing with construction permits (0–100) 86.15
Procedures (number) 11
Time (days) 49
Cost (% of warehouse value) 2.3
Building quality control index (0–15) 13.0

Getting electricity (rank) 4
DTI score for getting electricity (0–100) 98.84
Procedures (number) 3
Time (days) 28
Cost (% of income per capita) 2.47
Reliability of supply and transparency of tariffs index (0–8) 8

Registering property (rank) 11
DTI score for registering property (0–100) 90.04
Procedures (number) 2
Time (days) 1.5
Cost (% of property value) 0.0
Quality of land administration index (0–30) 21.0

Getting credit (rank) 20
DTI score for getting credit (0–100) 75.00
Strength of legal rights index (0–12) 8
Depth of credit information index (0–8) 7
Credit bureau coverage (% of adults) 40.0
Credit registry coverage (% of adults) 0.0

Trading across borders (rank) 115
DTI score for trading across borders (0–100) 64.26
Time to export
Documentary compliance (hours) 96
Border compliance (hours) 26
Cost to export
Documentary compliance (US$) 292
Border compliance (US$) 100

Enforcing contracts (rank) 81
DTI score for enforcing contracts (0–100) 58.96
Time (days) 378
Cost (% of claim) 46.3
Quality of judicial processes index (0–18) 9.0

Resolving insolvency (rank) 150
DTI score for resolving insolvency (0–100) 27.50
Time (years) 2.9
Cost (% of estate) 42.0
Recovery rate (cents on the dollar) 7.5
Strength of insolvency framework index (0–16) 7.5

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### DOING BUSINESS 2017

#### PAYING TAXES

<table>
<thead>
<tr>
<th>OECD high income</th>
<th>GNI per capita (US$)</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall distance to frontier (DTF) score (0–100)</td>
<td>82.74</td>
<td>43,340</td>
</tr>
<tr>
<td>Total tax rate (% of profit)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Postfiling index (0–100)</td>
<td>91.00</td>
<td></td>
</tr>
<tr>
<td>Postfiling index (0–100)</td>
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</table>

#### TRADING ACROSS BORDERS

<table>
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<tr>
<th>OECD high income</th>
<th>GNI per capita (US$)</th>
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<tr>
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</table>

#### ENFORCING CONTRACTS

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<th>OECD high income</th>
<th>GNI per capita (US$)</th>
<th>Population</th>
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<tr>
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</table>

#### OECD high income | GNI per capita (US$) | Population |
<table>
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<tr>
<td>Overall distance to frontier (DTF) score (0–100)</td>
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<td></td>
</tr>
<tr>
<td>Postfiling index (0–100)</td>
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</table>

#### LATIN AMERICA & CARIBBEAN

<table>
<thead>
<tr>
<th>Latin America &amp; Caribbean</th>
<th>GNI per capita (US$)</th>
<th>Population</th>
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<tbody>
<tr>
<td>Overall distance to frontier (DTF) score (0–100)</td>
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<td>3,431,555</td>
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<td>Total tax rate (% of profit)</td>
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<tr>
<td>Postfiling index (0–100)</td>
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<tr>
<td>Postfiling index (0–100)</td>
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#### UNITED KINGDOM

<table>
<thead>
<tr>
<th>OECD high income</th>
<th>GNI per capita (US$)</th>
<th>Population</th>
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</thead>
<tbody>
<tr>
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#### UNITED STATES

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<th>OECD high income</th>
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<th>Population</th>
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<tr>
<td>Postfiling index (0–100)</td>
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<tr>
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#### URUGUAY

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<th>Population</th>
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<tr>
<td>Postfiling index (0–100)</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Country</th>
<th>Region</th>
<th>Ease of doing business rank (1–190)</th>
<th>Overall distance to frontier (DTF) score (0–100)</th>
<th>GNI per capita (US$)</th>
<th>Population</th>
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<tbody>
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<td><strong>UZBEKISTAN</strong></td>
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<td>87</td>
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<tr>
<td>Cost (% of income per capita)</td>
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<td>Minimum capital (% of income per capita)</td>
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<tr>
<td><strong>Dealing with construction permits (rank)</strong></td>
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<td></td>
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<tr>
<td>Time (days)</td>
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<tr>
<td>Cost (% of warehouse value)</td>
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<td>18.8%</td>
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</table>

Note: Most indicator sets refer to a case scenario in the largest business city of an economy, though for 11 economies the data are a population-weighted average for the two largest business cities. For some indicators a result of "no practice" may be recorded for an economy; see the data notes for more details. In starting a business, procedures (number), time (days) and cost (% of income per capita) are calculated as the average of both men and women. For the posfilling index, a result of "not applicable" may be recorded for an economy.
Starting a business (rank) 121
DTF score for starting a business (0–100) 81.76
Procedures (number) 10
Time (days) 24
Cost (% of income per capita) 4.6
Minimum capital (% of income per capita) 0.0

Dealing with construction permits (rank) 24
DTF score for dealing with construction permits (0–100) 78.89
Procedures (number) 10
Time (days) 166
Cost (% of property value) 0.8
Building quality control index (0–15) 12.0

Getting electricity (rank) 96
DTF score for getting electricity (0–100) 69.11
Procedures (number) 5
Time (days) 46
Cost (% of income per capita) 1,263.3
Reliability of supply and transparency of tariffs index (0–8) 3

Registering property (rank) 59
DTF score for registering property (0–100) 70.61
Procedures (number) 5
Time (days) 57.5
Cost (% of property value) 0.6
Quality of land administration index (0–30) 14.0

Trading across borders (rank) 93
DTF score for trading across borders (0–100) 69.92
Time to export
Documentary compliance (hours) 50
Border compliance (hours) 58
Cost to export
Documentary compliance (US$) 139
Border compliance (US$) 309

Enforcing contracts (rank) 69
DTF score for enforcing contracts (0–100) 60.22
Time (days) 400
Cost (% of claim) 29.0
Quality of judicial processes index (0–18) 6.5

Resolving insolvency (rank) 125
DTF score for resolving insolvency (0–100) 35.08
Time (years) 5.0
Cost (% of estate) 14.5
Recovery rate (cents on the dollar) 21.6
Strength of insolvency framework index (0–16) 7.5

Getting credit (rank) 32
DTF score for getting credit (0–100) 70.00
Strength of legal rights index (0–12) 0
Depth of credit information index (0–8) 8
Credit bureau coverage (% of adults) 0.0
Credit registry coverage (% of adults) 0.0

Protectioning minority investors (rank) 87
DTF score for protecting minority investors (0–100) 53.33
Extent of disclosure index (0–10) 7
Extent of director liability index (0–10) 4
Ease of shareholder suits index (0–10) 2
Cost to import
Documentary compliance (US$) 183
Border compliance (US$) 392

Trading across borders (rank) 167
DTF score for trading across borders (0–100) 49.39
Time (hours per year) 390
Total tax rate (% of profit) 0.0
Postfiling index (0–100) 39.94

Resolving insolvency (rank) 169
DTF score for resolving insolvency (0–100) 0.00
Time (years) NO PRACTICE
Cost (% of estate) NO PRACTICE
Recovery rate (cents on the dollar) NO PRACTICE
Strength of insolvency framework index (0–16) NO PRACTICE

Getting credit (rank) 118
DTF score for getting credit (0–100) 40.00
Strength of legal rights index (0–12) 0
Depth of credit information index (0–8) 8
Credit bureau coverage (% of adults) 0.0
Credit registry coverage (% of adults) 0.0

Protectioning minority investors (rank) 158
DTF score for protecting minority investors (0–100) 38.33
Extent of disclosure index (0–10) 6
Extent of director liability index (0–10) 5
Ease of shareholder suits index (0–10) 6
Cost to import
Documentary compliance (US$) 288
Border compliance (US$) 196

Enforcing contracts (rank) 122
DTF score for enforcing contracts (0–100) 52.51
Time (days) 540
Cost (% of claim) 27.0
Quality of judicial processes index (0–18) 4.0

Resolving insolvency (rank) 168
DTF score for resolving insolvency (0–100) 0.00
Time (years) NO PRACTICE
Cost (% of estate) NO PRACTICE
Recovery rate (cents on the dollar) NO PRACTICE
Strength of insolvency framework index (0–16) NO PRACTICE

Getting credit (rank) 185
DTF score for getting credit (0–100) 0.00
Strength of legal rights index (0–12) 0
Depth of credit information index (0–8) 8
Credit bureau coverage (% of adults) 0.0
Credit registry coverage (% of adults) 0.0

Protectioning minority investors (rank) 132
DTF score for protecting minority investors (0–100) 43.33
Extent of disclosure index (0–10) 6
Extent of director liability index (0–10) 4
Ease of shareholder suits index (0–10) 3
Cost to import
Documentary compliance (US$) 200
Border compliance (US$) 0

Enforcing contracts (rank) 142
DTF score for enforcing contracts (0–100) 48.52
Time (days) 645
Cost (% of claim) 30.0
Quality of judicial processes index (0–18) 4.0

Resolving insolvency (rank) 152
DTF score for resolving insolvency (0–100) 26.65
Time (years) 3.0
Cost (% of estate) 15.0
Recovery rate (cents on the dollar) 20.5
Strength of insolvency framework index (0–16) 5.0

Note: Most indicator sets refer to a case scenario in the largest business city of an economy, though for 11 economies the data are a population-weighted average for the two largest business cities. For some indicators a result of “no practice” may be recorded for an economy; see the data notes for more details. In starting a business, procedures (number), time (days) and cost (% of income per capita) are calculated as the average of both men and women. For the postfiling index, a result of “not applicable” may be recorded for an economy.

<table>
<thead>
<tr>
<th>VIETNAM</th>
<th>Ease of doing business rank (1–190)</th>
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### ZAMBIA

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<th>Country</th>
<th>Sub-Saharan Africa</th>
<th>GNI per capita (US$)</th>
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<td>Overall distance to frontier (DTF) score (0–100)</td>
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#### Starting a business (rank) 105
- DTF score for starting a business (0–100) 84.95
- Procedures (number) 7
- Time (days) 8.5
- Cost (% of income per capita) 33.7
- Minimum capital (% of income per capita) 0.0

#### Dealing with construction permits (rank) 78
- DTF score for dealing with construction permits (0–100) 70.85
- Procedures (number) 10
- Time (days) 189
- Cost (% of warehouse value) 3.3
- Building quality control index (0–15) 10.0

#### Getting electricity (rank) 153
- DTF score for getting electricity (0–100) 40.86
- Procedures (number) 6
- Time (days) 117
- Cost (% of income per capita) 609.6
- Reliability of supply and transparency of tariffs index (0–8) 0

#### Registering property (rank) 145
- DTF score for registering property (0–100) 49.00
- Procedures (number) 6
- Time (days) 45
- Cost (% of property value) 9.9
- Quality of land administration index (0–30) 7.5

### ZIMBABWE

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#### Starting a business (rank) 183
- DTF score for starting a business (0–100) 49.13
- Procedures (number) 10
- Time (days) 91
- Cost (% of income per capita) 119.2
- Minimum capital (% of income per capita) 0.0

#### Dealing with construction permits (rank) 181
- DTF score for dealing with construction permits (0–100) 44.73
- Procedures (number) 10
- Time (days) 238
- Cost (% of warehouse value) 25.4
- Building quality control index (0–15) 9.0

#### Getting electricity (rank) 165
- DTF score for getting electricity (0–100) 43.81
- Procedures (number) 6
- Time (days) 106
- Cost (% of income per capita) 2,957.9
- Reliability of supply and transparency of tariffs index (0–8) 0

#### Registering property (rank) 111
- DTF score for registering property (0–100) 57.67
- Procedures (number) 5
- Time (days) 36
- Cost (% of property value) 7.6
- Quality of land administration index (0–30) 9.5

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# Labor Market Regulation Data

<table>
<thead>
<tr>
<th>Economy</th>
<th>Fixed-term contracts prohibited for permanent tasks?</th>
<th>Maximum length of fixed-term contracts (months)</th>
<th>Minimum wage for a full-time worker (US$/month)</th>
<th>Ratio of minimum wage to value added per worker</th>
<th>Maximum number of working days per week</th>
<th>Premium for night work (% of hourly pay)</th>
<th>Premium for work on weekly rest day (% of hourly pay)</th>
<th>Premium for overtime work (% of hourly pay)</th>
<th>Restrictions on night work?</th>
<th>Nonpregnant and nonnursing women permitted to work same night hours as men?*</th>
<th>Restrictions on weekly holiday work?</th>
<th>Restrictions on overtime work?</th>
<th>Paid annual leave (working days)</th>
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## LABOR MARKET REGULATION DATA

<p>| Economy                   | Hiring | Working hours |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |
|---------------------------|--------|---------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
|                           | Fixed-term contracts prohibited for permanent task? | Maximum length of fixed-term contracts (months) | Minimum wage for a full-time worker ($/month) | Ratio of minimum wage to value added per worker | Maximum number of working days per week | Premium for night work (% of hourly pay) | Premium for work on weekly holiday (% of hourly pay) | Premium for overtime work (% of hourly pay) | Restrictions on night work? | Restrictions on weekly holiday work? | Restrictions on overtime work? | Paid annual leave (working days) |
| Bhutan                    | No     | No limit      | 58.17            | 0.20             | 6                | 0                | 0                | 0                | No               | Yes              | No               | No               | 15.0             |
| Bolivia                   | Yes    | 24            | 239.85           | 0.57             | 6                | 25               | 100              | 100              | No               | No               | No               | No               | 21.7             |
| Bosnia and Herzegovina    | No     | 24            | 353.60           | 0.64             | 6                | 30               | 20               | 30               | No               | Yes              | No               | No               | 18.0             |
| Botswana                  | No     | No limit      | 100.58           | 0.12             | 6                | 0                | 100              | 50               | No               | Yes              | No               | No               | 15.0             |
| Brazil (Rio de Janeiro)   | Yes    | 24            | 418.98           | 0.35             | 6                | 20               | 100              | 50               | Yes              | Yes              | No               | No               | 26.0             |
| Brazil (São Paulo)        | Yes    | 24            | 383.99           | 0.32             | 6                | 20               | 100              | 50               | Yes              | Yes              | No               | No               | 26.0             |
| Brunei Darussalam         | No     | No limit      | 0.00             | 0.00             | 6                | 0                | 50               | 50               | No               | Yes              | No               | No               | 13.3             |
| Bulgaria                  | No     | 36            | 262.92           | 0.29             | 6                | 3                | 0                | 50               | Yes              | Yes              | No               | Yes              | 20.0             |
| Burkina Faso              | No     | No limit      | 98.95            | 0.94             | 6                | 0                | 0                | 15               | No               | Yes              | Yes              | No               | 22.0             |
| Burundi                   | No     | No limit      | 2.40             | 0.06             | 6                | 35               | 0                | 35               | No               | Yes              | No               | No               | 21.0             |
| Cabo Verde                | Yes    | 60            | 121.69           | 0.29             | 6                | 25               | 100              | 50               | No               | Yes              | No               | No               | 22.0             |
| Cambodia                  | No     | 24            | 0.00             | 0.00             | 6                | 130              | 0                | 50               | No               | Yes              | No               | No               | 19.3             |
| Cameroon                  | No     | 48            | 66.36            | 0.32             | 6                | 0                | 0                | 20               | No               | Yes              | No               | No               | 25.0             |
| Canada                    | No     | No limit      | 1,687.14         | 0.29             | 6                | 0                | 0                | 50               | No               | Yes              | No               | Yes              | 10.0             |
| Central African Republic  | Yes    | 24            | 83.08            | 1.78             | 6                | 0                | 50               | ..               | No               | Yes              | Yes              | No               | 25.3             |
| Chad                      | No     | 48            | 118.22           | 0.80             | 6                | 0                | 100              | 10               | Yes              | No               | No               | No               | 24.7             |
| Chile                     | No     | 12            | 412.29           | 0.24             | 6                | 0                | 0                | 50               | No               | Yes              | No               | No               | 15.0             |
| China (Beijing)           | No     | No limit      | 274.07           | 0.31             | 6                | 0                | 100              | 50               | No               | Yes              | No               | No               | 6.7              |
| China (Shanghai)          | No     | No limit      | 348.96           | 0.39             | 6                | 34               | 100              | 50               | No               | Yes              | No               | No               | 6.7              |
| Colombia                  | No     | No limit      | 302.43           | 0.35             | 6                | 35               | 75               | 25               | No               | Yes              | No               | No               | 15.0             |
| Comoros                   | No     | 36            | 0.00             | 0.00             | 6                | 28               | 0                | 25               | No               | Yes              | Yes              | No               | 22.0             |
| Congo, Dem. Rep.          | Yes    | 48            | 65.00            | 0.00             | 5                | 25               | 0                | 38               | Yes              | Yes              | Yes              | No               | 13.0             |</p>
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<th>Dismissal due to redundancy allowed by law?</th>
<th>Third-party notification if one worker is dismissed?</th>
<th>Third-party approval if nine workers are dismissed?</th>
<th>Retaining or reassignment compulsory before redundancies?</th>
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<th>Priority rules for reemployment?</th>
<th>Notice period for redundancy dismissal (weeks of salary)</th>
<th>Severance pay for redundancy dismissal (weeks of salary)</th>
<th>Equal remuneration for work of equal value?</th>
<th>Gender nondiscrimination in hiring?</th>
<th>Paid or unpaid maternity leave mandated by law?</th>
<th>Minimum length of maternity leave (calendar days)</th>
<th>Receive 100% of wages on maternity leave?</th>
<th>Five fully paid days of sick leave a year?</th>
<th>Unemployment protection after one year of employment?</th>
<th>Minimum contribution period for unemployment protection (months)</th>
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<th>Maximum number of fixed-term contracts (months)</th>
<th>Minimum wage for a full-time worker (US$/month)</th>
<th>Ratio of minimum wage to value added per worker</th>
<th>Maximum number of working days per week</th>
<th>Premium for night work (% of hourly pay)</th>
<th>Premium for work on weekly rest day (% of hourly pay)</th>
<th>Premium for overtime work (% of hourly pay)</th>
<th>Restrictions on night work?</th>
<th>Nonpregnant and nonnursing women permitted to work same night hours as men?*</th>
<th>Restrictions on weekly holiday work?</th>
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<td>Gender nondiscrimination in hiring?</td>
<td>Paid or unpaid maternity leave mandated by law?</td>
<td>Minimum length of maternity leave (calendar days)</td>
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**Redundancy rules**

- Dismissal due to redundancy allowed by law?
- Third-party notification if one worker is dismissed?
- Third-party approval if nine workers are dismissed?
- Retraining or reassignment compulsory before redundancy?
- Priority rules for redundancies?
- Priority rules for reemployment?
- Notice period for redundancy dismissal (weeks of salary)
- Severance pay for redundancy dismissal (weeks of salary)

**Redundancy cost**

- Equal remuneration for work of equal value?
- Gender nondiscrimination in hiring?
- Paid or unpaid maternity leave mandated by law?
- Minimum length of maternity leave (calendar days)
- Receive 100% of wages on maternity leave?
- Five fully paid days of sick leave a year?
- Unemployment protection after one year of employment?
- Minimum contribution period for unemployment protection (months)

**Job quality**

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<th>Fixed-term contracts prohibited for permanent tasks?</th>
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<th>Maximum number of working days per week</th>
<th>Premium for night work (% of hourly pay)</th>
<th>Premium for work on weekly rest day (% of hourly pay)</th>
<th>Premium for overtime work (% of hourly pay)</th>
<th>Restrictions on night work?</th>
<th>Nonpregnant and nonnursing women permitted to work same night hours as men?</th>
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<td>Restrictions on night work?</td>
<td>Nonpregnant and nonnursing women permitted to work same night hours as men?*</td>
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<td>Retaining or reassignment compulsory before redundancies?</td>
<td>Priority rules for redundancies?</td>
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<td>Notice period for redundancy dismissal (weeks of salary)</td>
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<td>Equal remuneration for work of equal value?*</td>
<td>Gender nondiscrimination in hiring?*</td>
<td>Paid or unpaid maternity leave mandated by law?**</td>
<td>Minimum length of maternity leave (calendar days)**</td>
<td>Receive 100% of wages on maternity leave?*</td>
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## LABOR MARKET REGULATION DATA

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<th>Fixed-term contracts prohibited for permanent tasks?</th>
<th>Maximum length of fixed-term contracts (months)</th>
<th>Minimum wage for a full-time worker (US$/month)</th>
<th>Ratio of minimum wage to value added per worker</th>
<th>Maximum number of working days per week</th>
<th>Premium for night work (% of hourly pay)</th>
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<th>Premium for overtime work (% of hourly pay)</th>
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<th>Restrictions on weekly holiday work?</th>
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<th>Notice period for redundancy dismissal (weeks of salary)</th>
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<th>Gender nondiscrimination in hiring?*</th>
<th>Severance pay for maternity leave mandated by law?**</th>
<th>Minimum length of maternity leave (calendar days)**</th>
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*Indicates the presence of specific labor market regulations.

**Indicates mandated lengths or conditions for maternity leave.
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<th>Maximum length of fixed-term contracts (months)</th>
<th>Minimum wage for a full-time worker (US$/month)</th>
<th>Ratio of minimum wage to value added per worker</th>
<th>Maximum number of working days per week</th>
<th>Premium for night work (% of hourly pay)</th>
<th>Premium for work on weekly rest day (% of hourly pay)</th>
<th>Premium for overtime work (% of hourly pay)</th>
<th>Restrictions on night work?</th>
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<td>Equal remuneration for work of equal value?</td>
<td>Gender nondiscrimination in hiring?</td>
<td>Paid or unpaid maternity leave mandated by law?</td>
<td>Minimum length of maternity leave (calendar days)?</td>
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Source: Doing Business database.

* Data were collected jointly with the World Bank Group’s Women, Business and the Law team.

<sup>a</sup> Including renewals.

<sup>b</sup> Refers to the worker in the Doing Business case study: a cashier, age 19, with one year of work experience. Economies for which 0.0 is shown have no minimum wage in the private sector.

<sup>c</sup> Average for workers with 1, 5 and 10 years of tenure.

<sup>d</sup> Not applicable (n.a.) for economies with no statutory provision for a probationary period.

<sup>e</sup> If no maternity leave is mandated by law, parental leave is measured if applicable.

<sup>f</sup> The minimum number of days that legally have to be paid by the government, the employer or both.

<sup>g</sup> Not applicable (n.a.) for economies with no unemployment protection scheme.

<sup>h</sup> Some answers are not applicable (n.a.) for economies where dismissal due to redundancy is disallowed.
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<td>Dismissal due to redundancy allowed by law?</td>
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<td>Third-party approval if nine workers are dismissed?</td>
<td>Retraining or reassignment compulsory before redundancy?</td>
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<td>Priority rules for redundancies?</td>
<td>Notice period for redundancy dismissal (weeks of salary)</td>
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<td>Priority rules for reemployment?</td>
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<td>Paid or unpaid maternity leave mandated by law?*</td>
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<td>Minimum length of maternity leave (calendar days) f*</td>
<td>Five fully paid days of sick leave a year?</td>
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Acknowledgments

Data collection and analysis for Doing Business 2017 were conducted by a team led by Rita Ramalho (Manager, Doing Business) under the general direction of Augusto Lopez-Claros (Director, Global Indicators Group, Development Economics). Overall guidance for the preparation of the report was provided by Kaushik Basu, Senior Vice President and Chief Economist of the World Bank. The project was managed with the support of Santiago Croci Downes, Carolin Geginat, Adrian Gonzalez and Hulya Ulku. Other team members included Nadine Abi Chakra, Jean Arlet, Yuriy Valentynovich Avramov, Rodrigo Sarmento de Beires, Erica Bosio, Emily Bourke, Edgar Chavez Sanchez, Maria Magdalena Chiquier, Selima Daadouche Crum, Baria Nabil Daye, Marcio Augusto De La Cruz Gómez, Christian De la Medina Soto, Marie Lily Delion, Laura Diniz, Varun Eknath, Faiza El Fezzazi El Maziani, Cécile Ferro, Felipe Abel Flores Meregote, Albina Gasanbekova, Dorina Georgieva, Anushavan Hambardzumyan, Volha Hrytskevich, Maksym Ivorskyi, Joyce Antoine Ibrahim, Nan Jiang, Hervé Kaddoura, Klaus Koch Saldarriaga, Olena Koltko, Magdalini Konidari, Khrystyna Kushner, Mathilde Lugger, Frédéric Meunier, Haya Mortada, Joanna Nasr, Marie-Jeanne Ndiaye, Albert Nogués i Comas, Nadia Novik, Tigran Parvanyan, María Antonia Quesada Gámez, Parvina Rakhimova, Morgann Courtney Reeves, Anna Reva, Margarida Rodrigues, Julie Ryan, Valentina Saltane, Jayashree Srinivasan, Mihaela Stangu, Shraddha Suresh, Brandon Thompson, Erick Tjong, Camille Henri Vaillon, Yelizaveta Yanovich, Marilyne Youbi, Inés Zabalbeitia Múgica and Yasmin Zand. Thuraiya Alhashmi, Ahmad Famm AlKhuzami, Noimot Olaide Bakare, Kate Aoife Brolley, Ana Paula Cañedo Guichard, Imane Cherry, Adelaida Correa Miranda, Flavio Cesar Cultrera Munoz, Bidisha Das, Diane Davoine, Stephanie Desjardins, Imane Fahli, Emma Valentina Fernandez Diaz, Leo Forder, Mcswain Pello Forkoh, Juan David Garcia Vidal, Albe Gjonbalaj, Baya Hariche, Dimitra Christina Heliotis, Fjolla Kondirolli, Gbogbo Nina Marie-Laure Kouadio, Margaux Verónica Roussel, Roxanne Moin-Safa, Aurelio Nascimento de Amaral, Albert D. Nyuangar Jr., Madwa-Nika Phanord-Cadet, Renaud Poizat, Lourdes Sabina Poma Canazaca, Katerina Louisa Roumeliotis, Tetyana Sydorenko, Alessandra Volpe Martinez, Yaxin Yan and Ana Maria Zárate Moreno assisted in the months before publication.

The Doing Business Advisory Board, which includes leading academics, corporate leaders and policy makers, provides guidance and advice on broader strategic opportunities for Doing Business and on areas for expansion and improvement. Its members are: Timothy Besley, Robert D. Cooter, Eleni Gabre-Madhin, Aart Kraay, Felipe Larraín Bascuñán, Ann-Marie Leroy, Anand Mahindra and Dani Rodrik.

The selling to the government data was collected by Elisabeth Danon, Natalia Del Valle Catoni, Maria Paula Gutierrez Casadiego, Raquel Mayer Cuesta, Sophie Pouget and Dima Rbez. The team was supervised by Tania Ghossein and Federica Saliola.
ACKNOWLEDGMENTS

The online service of the Doing Business database is managed by Andres Baquero Franco, Varun Doiphode, Fengsheng Huang, Arun Chakravarthi Nageswaran, Kunal Patel, Jiawen Peng, Kamalesh Sengaonkar, Bishal Raj Thakuri and Hashim Zia. The Doing Business 2017 outreach strategy is managed by Indira Chand, under the general direction of Phillip Jeremy Hay with support from World Bank Group communications colleagues around the world.

The team is grateful for the valuable comments provided by colleagues in the World Bank Group (both on the draft report and on the changes in the methodology) and outside the World Bank Group (on the changes in the methodology) and for the guidance provided by World Bank Group Executive Directors. The team would especially like to acknowledge the comments and guidance of Gabi Afram, Ahmad Ahsan, Ratchada Anantavasipha, Pedro Antmann, Leah April, Elmas Arisoy, Rajul Awasthi, Katherine Baer, Svetlana Bagaudinova, Amina A. Bajwa, Jennifer Barsky, Amjad Bashir, David Bridgman, Abel L. Caamano, James A. Brumby, Rodrigo Chaves, Simon Chirwa, Tamoya Christie, Anna Y. Chytla, Julian Clarke, Richard Damania, Thomas Dane, Arsala Deane, Jorge Familiar Calderon, Marianne Fay, Elsa Felipe, Ana Margarida Fernandes, Achim Fock, Vivien Foster, Charles Fox, Fabrizio Fraboni, Ernesto Franco-Temple, Indermit Gill, Anabel Gonzalez, Caren Grown, Eva Gutierrez, Faris Hadad-Zervos, Lucia Hanmer, Antony Bryan Hazeldon Lythgoe, Caroline Heider, Vivian Y.N. Hon, Mombert Hoppe, Neville Howlett, Yoichiro Ishihara, Melissa Johns, Michael Keen, Saida Khamidova, Arthur Kochnayan, Aphichoke (Andy) Kotikula, Arvo Kuddo, Keith E. Hansen, Peter Ladegaard, John Litwack, Jean Michel Lobet, Gladys Lopez-Acevedo, Elaine MacEachern, Oscar Madeddu, Sanja Mazarevic-Sujster, William F. Maloney, Susan Maslen, Shabih Ali Mohib, Fredesvinda F. Montes Herranz, Alejandro Moreno, Rafael Moreno, Khampho Nanthavong, Andrew Kazora Okello, Maria Beatriz Orlando, Vicki Perry, Carlos Pinerua, Alban Pruthi, Alvaro Quijandría, Martin Rama, Colin Ewell Wesley Raymond, Alberto Rodriguez, Luz Maria Salamina, Shalini Sankaranarayanan, Inka Schomer, Sudhir Shetty, Vannara Sok, Richard Spencer, Murat Sultanov, Laura Tuck, Joel A. Turkewitz, Aman Ullah, Mahesh Uttamchandani, Robert Utz, Jos Verbeek, Marijn Verhoeven and Justin O.S. Zake.

The paying taxes project was conducted in collaboration with PwC, led by Stef van Weeghel.

Bronwen Brown edited the manuscript. Corporate Visions, Inc. designed the report and the graphs.

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Acknowledgments
ACKNOWLEDGMENTS
HONG KONG KAR SOR CHINA

AECOM ASIA COMPANY LIMITED
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Albert P.C., Chan
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