

An aerial photograph of a large industrial or agricultural facility, possibly a greenhouse complex, during sunset. The sun is low on the horizon, casting a warm, golden glow over the scene. The facility consists of numerous large, rectangular structures with white or light-colored roofs, arranged in a grid-like pattern. In the background, there are more buildings and a city skyline under a hazy sky. The overall atmosphere is serene and industrial.

## About *Doing Business* and *Doing Business in the European Union 2021: Austria, Belgium and the Netherlands*

- *Doing Business* measures aspects of regulatory efficiency and institutional quality of the key processes that affect local small and medium-size businesses in 191 economies.
- *Doing Business* covers 10 specific areas of the business environment: 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.
- The *Doing Business* dataset is used widely by governments, researchers, international organizations, and think tanks to guide policies, conduct research, and develop new indexes.
- *Doing Business in the European Union 2021: Austria, Belgium and the Netherlands*, which is independent of the global *Doing Business* report, benchmarks 24 locations and five *Doing Business* indicators: starting a business, dealing with construction permits, getting electricity, registering property and enforcing contracts.

**D**oing Business is founded on the principle that economic activity benefits from clear rules and efficient service provision by the institutions responsible for their application. The rules and their structural framework—setting out property rights, facilitating the resolution of disputes, and protecting contractual partners from arbitrariness and abuse—encourage voluntary exchanges between economic actors. Such rules are much more effective in promoting growth and development when they are efficient, transparent, accessible, and implemented through well-functioning infrastructure.

Rules and institutions create an environment where new entrants with drive and innovative ideas can get started in business and where productive firms can invest, expand, and create new jobs. The role of government policy in the daily operations of small and medium-size domestic firms is a central focus of the *Doing Business* data. The objective is to encourage better quality institutions as well as efficient, transparent, and easy-to-implement regulation that allows businesses to thrive. *Doing Business* data focus on 10 areas of the business environment affecting small and medium-size domestic firms in the largest business city of an economy.<sup>1</sup> The project uses standardized case studies to provide objective, quantitative measures that can be compared across 191 economies.

## WHAT DOING BUSINESS AND SUBNATIONAL DOING BUSINESS MEASURE

*Doing Business* captures several important dimensions of the business environment affecting domestic firms. It provides quantitative indicators on regulatory efficiency and institutional quality 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 5.1). *Doing Business* also collects data on contracting with the government, which measure the steps and time to participate in, win, and execute a roadworks contract through open procurement; features of e-procurement platforms; and good practices in the regulatory framework for such contract. These data are not part of the ease of doing business score and are available on the *Doing Business* website.<sup>2</sup>

*Subnational Doing Business*, which are produced independently and by a separate team from the global *Doing Business* report, focuses on indicators that are most likely to vary from city to city, such as those on dealing with construction permits or registering property. Indicators that use a legal scoring methodology, such as those on getting credit or protecting minority investors, are typically excluded because they mostly look at national laws with general applicability.

*Doing Business* measures aspects of business regulation affecting domestic

small and medium size firms defined on the basis of standardized case scenarios and located in the largest business city of each economy. In addition, for 11 economies a second city is covered.

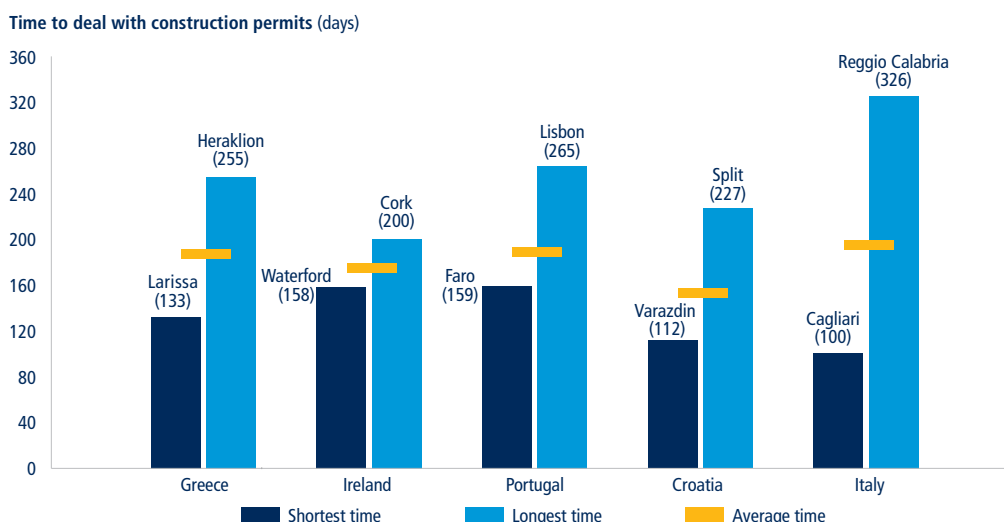
*Subnational Doing Business* covers a subset of the 10 areas of business regulation that *Doing Business* covers across 191 economies. Subnational studies expand the *Doing Business* analysis beyond the largest business city of an economy. They measure variation in regulations or in the implementation of national laws across locations within an economy (as in South Africa) or a region (as in this report). Projects are undertaken at the request of governments.

Data collected by subnational studies over the past several years show that there can be substantial variation within an economy (figure 5.1). In Croatia in 2018, for example, dealing with construction permits took 112 days in Varazdin and 227 in Split. Indeed, within the same economy one can find locations that

TABLE 5.1 What *Doing Business* and *Subnational Doing Business* measure

Indicator set	What is measured
<b>Typically included in subnational <i>Doing Business</i> reports</b>	
Starting a business	Procedures, time, cost and paid-in minimum capital to start a limited liability company for men and women
Dealing with construction permits	Procedures, time and cost to complete all formalities to build a warehouse and the quality control and safety mechanisms in the construction permitting system
Getting electricity	Procedures, time and cost to get connected to the electrical grid; the reliability of the electricity supply; and the transparency of tariffs
Registering property	Procedures, time and cost to transfer a property and the quality of the land administration system
Trading across borders	Time and cost to export the product of comparative advantage and to import auto parts
Enforcing contracts	Time and cost to resolve a commercial dispute and the quality of judicial processes for men and women
<b>Not typically included in subnational <i>Doing Business</i> reports</b>	
Getting credit	Movable collateral laws and credit information systems
Protecting minority investors	Minority shareholders' rights in related-party transactions and in corporate governance
Paying taxes	Payments, time and total tax rate and contribution for a firm to comply with all tax regulations as well as postfiling processes
Resolving insolvency	Time, cost, outcome and recovery rate for a commercial insolvency and the strength of the legal framework for insolvency

FIGURE 5.1 Different locations, different regulatory processes, and same economy



Source: Subnational Doing Business database.

Note: The average time shown for each country is based on all cities covered by the data: 6 cities in Greece in 2019, 5 cities in Ireland in 2019, 8 cities in Portugal in 2018, 5 cities in Croatia in 2018 and 13 cities in Italy in 2019.

perform as well as economies ranking in the top 20 on the ease of dealing with construction permits and locations that perform as poorly as economies ranking in the bottom 40 on that indicator.

The subnational *Doing Business* studies create disaggregated data on business regulation. But they go beyond a data collection exercise. They have proved to be strong motivators for regulatory reform at the local level:

- The data produced are comparable across locations within the economy and internationally, enabling locations to benchmark their results both locally and globally. Comparisons of locations that are within the same economy and therefore share the same legal and regulatory framework can be revealing: local officials find it hard to explain why doing business is more difficult in their jurisdiction than in a neighboring one.
- Pointing out 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 prompt discussions of 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 almost 600 locations from 83 economies, including Poland, Spain, Colombia, Malaysia, China, the Arab Republic of Egypt, Brazil, Peru, Honduras, Mozambique and Serbia. Twenty-two economies—including South Africa, the United Arab Emirates, Kazakhstan, Indonesia, Kenya, Mexico, Nigeria, the Philippines and the Russian Federation—have undertaken two or more rounds of subnational data collection to measure progress over time (figure 5.2).

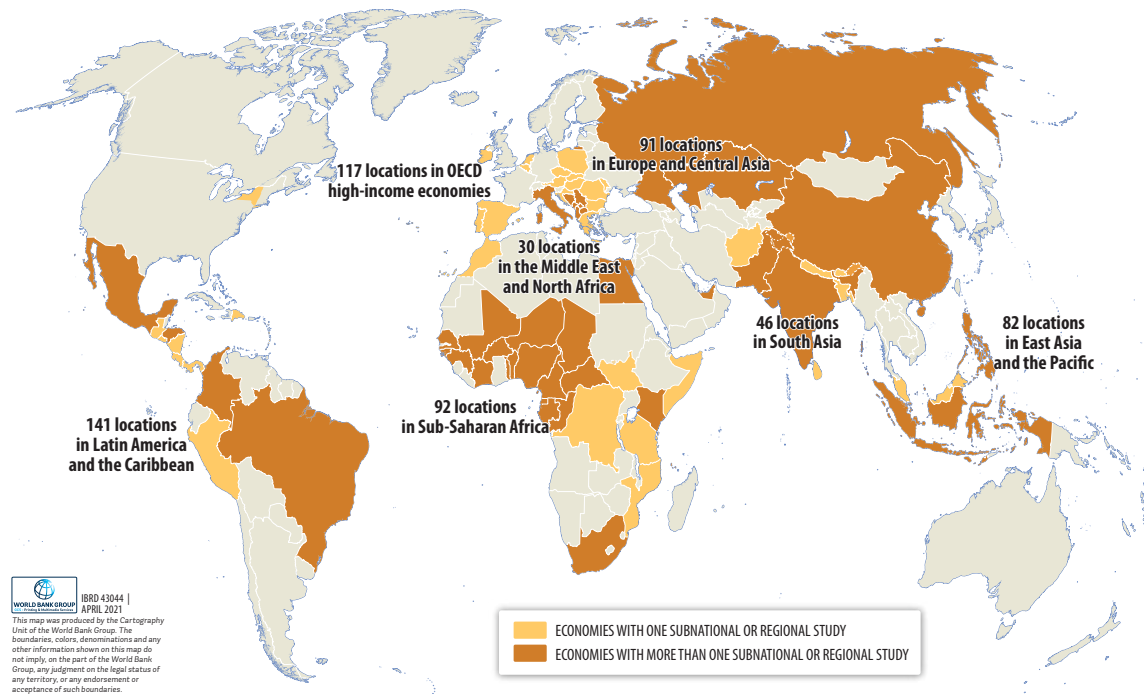
*Doing Business in the European Union 2021: Austria, Belgium and the Netherlands* is the first report of the subnational *Doing Business* series in these three countries. It covers seven cities in Austria (Bregenz, Graz, Innsbruck, Klagenfurt, Linz, Salzburg and Vienna), seven in Belgium (Antwerp, Bruges, Ghent, Brussels, Charleroi, Liege and Namur), and 10 in The Netherlands (Amsterdam, Arnhem, The Hague, Eindhoven, Enschede,

Groningen, Maastricht, Middelburg, Rotterdam and Utrecht).

### How the indicator sets are selected

The design of the *Doing Business* indicator sets has been informed by theoretical insights gleaned from extensive research (Djankov 2016). In addition, background papers developing the methodology for most of the areas covered by *Doing Business* have established the importance of the rules, regulations, and institutions 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 gross domestic product (GDP).<sup>3</sup>

*Doing Business in the European Union 2021: Austria, Belgium and the Netherlands* covers five *Doing Business* indicator sets: starting a business, dealing with construction permits, getting electricity, registering property and enforcing contracts. These *Doing Business* indicator sets were selected on the basis of their relevance to the countries' context and their ability to show variation across the cities covered.

FIGURE 5.2 Comparing regulation at the local level: *Subnational Doing Business* studies

Source: *Subnational Doing Business* database.

Some *Doing Business* indicator sets assign 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, the scores reward economies that apply a risk-based approach to regulation as a way to address social and environmental concerns—such as by imposing heavier regulation on activities that pose a high risk to the population and lighter regulation on lower-risk activities. Thus, the economies that score highest on the ease of doing business are not those where there is no regulation, but those where governments have managed to establish rules and institutions that

facilitate business interactions in the marketplace without needlessly hindering the development of the private sector.

### The ease of doing business score

To provide different perspectives on the data, *Doing Business* presents data both for the individual indicator sets and for an aggregate measure: the ease of doing business score. The ease of doing business score aids in assessing the absolute level of performance and how it improves over time. The individual scores for each indicator set show the proximity of each economy to the best performance observed in each of the indicator sets across all economies in the *Doing Business* sample since 2005 or the third year in which data were collected for the indicator set. This approach underscores the gap between a particular economy's performance and the best performance at any point in time and is used to assess the change in the economy's business environment over time as measured by *Doing Business*.

*Doing Business in the European Union 2021: Austria, Belgium and the Netherlands* includes indicator scores and rankings for the 24 selected cities on starting a business, dealing with construction permits, getting electricity, registering property and enforcing contracts. The score measures a city's performance with respect to a measure of regulatory best practice for each indicator (table 5.2). The indicator rankings compare cities with one another in each of the three countries.

### Calculation of the ease of doing business score for each indicator area

Calculating the ease of doing business score for each indicator area for each city involves two main steps. In the first step individual component indicators are normalized to a common unit where each of the 19 component indicators  $y$  is rescaled using the linear transformation  $(\text{worst} - y)/(\text{worst} - \text{best})$ . In this formulation the highest score represents the best regulatory performance on the indicator across all economies covered

TABLE 5.2 How many economies achieve the best performance?

<i>Doing Business</i> area and indicator	Number of economies attaining best performance	Best performance	Worst performance
<b>Starting a business</b>			
Procedures (number)	1	1	18 <sup>a</sup>
Time (days)	0	0.5	100 <sup>b</sup>
Cost (% of income per capita)	3	0.0	200.0 <sup>b</sup>
Minimum capital (% of income per capita)	121	0.0	400.0 <sup>b</sup>
<b>Dealing with construction permits</b>			
Procedures (number)	0	5	30 <sup>a</sup>
Time (days)	0	26	373 <sup>b</sup>
Cost (% of warehouse value)	0	0.0	20.0 <sup>b</sup>
Building quality control index (0–15)	8	15	0 <sup>c</sup>
<b>Getting electricity</b>			
Procedures (number)	32	3	9 <sup>a</sup>
Time (days)	3	18	248 <sup>b</sup>
Cost (% of income per capita)	3	0.0	8,100.0 <sup>b</sup>
Reliability of supply and transparency of tariffs index (0–8)	31	8	0 <sup>c</sup>
<b>Registering property</b>			
Procedures (number)	4	1	13 <sup>a</sup>
Time (days)	1	1	210 <sup>b</sup>
Cost (% of property value)	1	0.0	15.0 <sup>b</sup>
Quality of land administration index (0–30)	0	30	0 <sup>c</sup>
<b>Enforcing contracts</b>			
Time (days)	0	120	1,340 <sup>b</sup>
Cost (% of claim value)	0	0.1	89.0 <sup>b</sup>
Quality of judicial processes index (0–18)	0	18	0 <sup>c</sup>

Source: *Doing Business* database.

- Worst performance is defined as the 99th percentile among all economies in the *Doing Business* sample.
- Worst performance is defined as the 95th percentile among all economies in the *Doing Business* sample.
- Worst performance is the worst value recorded.

by *Doing Business* since 2005 or the third year in which data for the indicator were collected. Both the best performance and the worst performance are reviewed every five years on the basis of the *Doing Business* data for the year in which they are reviewed and remain at that level for five years regardless of any changes in data in interim years.

Thus, an economy may establish the best regulatory performance for an indicator even though it may not have the highest score in a subsequent year. Conversely, an economy may score higher than the best regulatory performance if the economy reforms after the best regulatory performance is set. For

example, the best performance for the number of procedures to get electricity is set at three. In Mauritius, it takes three procedures to get electricity, whereas in Lithuania it takes just two. Although the two economies have a different number of procedures, both economies score 100 on the procedures necessary to get electricity because there are fewer or the same number of procedures compared to the threshold of three.

For scores on indexes such as the building quality control index or the quality of land administration index, the best regulatory performance is set at the highest possible value (although no economy has yet reached that value in the case of the latter).

To mitigate the effect of extreme outliers in the distribution of the rescaled data for most indicators, *Doing Business* calculates the worst performance after removing outliers (very few economies need 700 days to complete the procedures to start a business, but many need 9 days). The definition of outliers is based on the distribution for each indicator. Two rules were defined to simplify the process: the 95th percentile is used for the indicators with the most dispersed distributions (including minimum capital, number of payments to file and pay taxes, total tax and contribution rate, and the time and cost indicators), and the 99th percentile is used for number of procedures. Thus, an economy may perform worse than

the worst performance. For example, the worst performance for the time to enforce contracts is set at 1,340 days. In Barbados, it takes 1,340 days to enforce contracts, whereas it takes 1,785 days in Guinea-Bissau. Although the two economies have a different number of days, both economies score 0 on the time taken to enforce contracts because there are more or the same number of days compared to the threshold of 1,340. No outlier is removed for indicators bound by definition or construction, including legal index scores (such as the depth of credit information index, extent of disclosure index, and strength of insolvency framework index) (figure 5.3).

In the second step for calculating the ease of doing business score for each indicator, the scores obtained for individual indicators for each city are aggregated through simple averaging into one score for each indicator area.

A city's indicator score is indicated on a scale from 0 to 100, where 0 represents the worst regulatory performance and

100 the best. All indicator ranking calculations are based on scores without rounding.

### Variability of cities' scores across indicators

Each *Doing Business* indicator measures a different aspect of the business environment. A city's score's can vary, sometimes significantly, across indicator areas. One way to assess the variability of a city's performance is to look at its scores across areas. Consider the example of Zilina (Slovakia) in 2018. It scored 84.7 for starting a business, 88.4 for getting electricity and 91.0 for registering property, but only 57.9 for dealing with construction permits and 67.1 for enforcing contracts.

Variation in performance across the areas covered is not at all unusual. It reflects differences in the degree of priority that government authorities give to particular areas of business reform and in the ability of different government agencies to deliver tangible results in their area of responsibility.

### Indicator rankings

The ranking of cities in each indicator area ranges from 1 to 7 in Austria, 1 to 7 in Belgium and 1 to 10 in the Netherlands. The ranking is determined by sorting the scores in each area, rounded to two decimals.

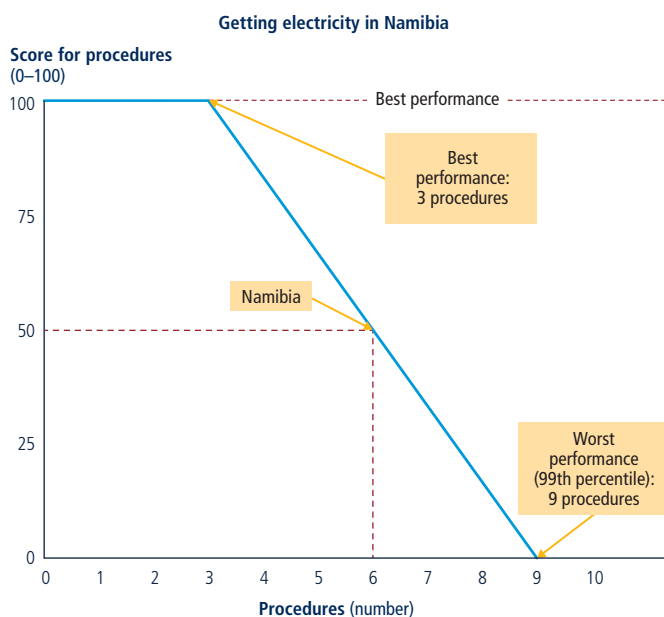
## ADVANTAGES AND LIMITATIONS OF THE METHODOLOGY

The *Doing Business* methodology is designed to be an easily replicable way to benchmark specific characteristics of the business environment—how they are implemented by governments and experienced by private firms and professionals on the ground. Its advantages and limitations should be understood when using the data.

Ensuring comparability of the data across a global set of economies is a central consideration for the *Doing Business* indicator sets, which are developed using 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. Gathering data for every relevant jurisdiction in each of the 191 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, and in learning from local good practices, *Doing Business* has complemented its global indicators with subnational reports. Also, starting with *Doing Business 2015*, coverage was extended to the second-largest business city in economies with a population of more than 100 million (as of 2013).

*Doing Business* recognizes the limitations of standardized case scenarios and assumptions. Although such assumptions

FIGURE 5.3 How are scores calculated for indicators?



Source: *Doing Business* database.

come at the expense of generality, they also ensure the comparability of data. Some of the dimensions covered by *Doing Business* are complex, 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 which institutions are responsible for a specific business process 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.

Compared with their formal sector counterparts, firms in the informal sector typically grow more slowly, have poorer access to credit, and employ fewer workers—and these workers remain outside the protections of labor law and, more generally, other protections embedded in the law.<sup>4</sup> 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 it provides policy makers with insights into potential areas of business reform.

*Doing Business* does not cover many important policy areas, and its scope is narrow even within the areas it does

cover. *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 also deliberately narrow within the specific *Doing Business* indicator sets. The trading across borders indicator set, for example, captures the time and cost required for the logistical process of exporting and importing goods, but it does not include the cost of tariffs or international transport. Similarly, the indicator sets on starting a business and protecting minority investors do not cover all aspects of commercial legislation. Given that *Doing Business* measures only a few features of each area that it covers, business reforms should not focus solely on these areas. Instead, they should be evaluated within a broader context.

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## DATA COLLECTION IN PRACTICE

The *Doing Business* data are based on a detailed reading of domestic laws, regulations, and administrative requirements as well as their implementation in practice as experienced by private professionals. With the inclusion of Liechtenstein, the number of economies covered by the data increased to 191. This number includes some of the smallest and poorest economies, for which other sources provide little or no data.

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.<sup>5</sup> *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. For a detailed explanation of the *Doing Business* methodology, see the data notes at [www.doingbusiness.org](http://www.doingbusiness.org).

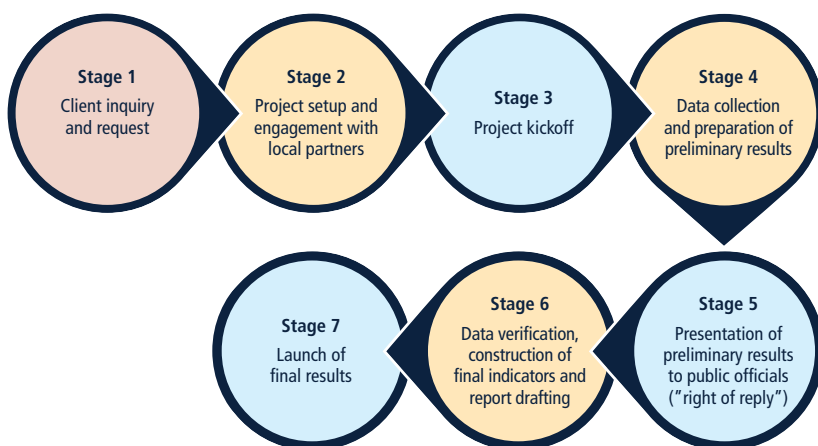
*Subnational Doing Business* follows similar data collection methods. However, subnational *Doing Business* studies are driven by client demand and do not follow the same timeline as global *Doing Business* publications. *Subnational Doing Business* reports collect data—independently of the global *Doing Business* data—through several rounds of communication with expert respondents (both private sector practitioners and government officials), and also through responses to questionnaires, conference calls, written correspondence, and visits by the team *Subnational Doing Business* team (figure 5.4).<sup>6</sup>

## Relevant laws and regulations

A large part of the data embedded in the areas measured by *Doing Business in the European Union 2021: Austria, Belgium and the Netherlands* are based on the reading of laws and regulations as well as their implementation in practice as experienced by private professionals. In addition to filling out questionnaires and participating in interviews, expert respondents submit references to the relevant laws, regulations, and fee schedules. The team collects the texts of the relevant laws and regulations and checks the questionnaire responses for accuracy. The team examines the civil procedure code, for example, to check the maximum number of adjournments in a commercial court dispute.

## Data verification

The team also collects data from public officials that work on the areas benchmarked in the report. For example, public authorities across Austria, Belgium and the Netherlands that work on the five areas completed questionnaires during the data collection process and provided the team with laws, regulations, and other

FIGURE 5.4 Typical stages of a subnational *Doing Business* project

documents related to the implemented reforms.

To minimize measurement errors, the team conducts extensive consultations with multiple contributors. For some areas—for example, those measuring dealing with construction permits, enforcing contracts, and registering property—the time component is based on actual practice. This approach introduces a degree of judgment by respondents. When respondents disagree, the time indicators reported represent the median values of several responses given under the assumptions of the standardized case.

Extensive consultations with multiple contributors are conducted by the team to minimize measurement errors for the rest of the data. For some areas—for example, those measuring dealing with construction permits, getting electricity and enforcing contracts—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 approach introduces a degree of judgment by respondents on what actual practice looks like. When respondents provide different estimates for components based on actual practice, the indicator sets reported represent the

median values of several responses given under the assumptions of the standardized case.

### Expert respondents

For *Doing Business in the European Union 2021: Austria, Belgium and the Netherlands*, more than 550 professionals across the three economies assisted in providing the data that inform the five areas covered. All private professionals were independently recruited by the *Subnational Doing Business* team. The *Subnational Doing Business* website and the acknowledgments section of this report list the names and credentials of those respondents wishing to be acknowledged.

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 in the European Union 2021: Austria, Belgium and the Netherlands*. Because some indicator sets focus on legal and regulatory arrangements, many respondents are legal professionals such as lawyers or notaries. Architects, engineers, electrical contractors and other professionals answered the questionnaires related to dealing with construction permits and getting electricity. Certain public officials (such as registrars

from the company or property registry, customs officials, and staff of electrical utilities) also provide information that is incorporated into the indicator sets. Local and national government officials and judges also provided information that is incorporated in the indicators.

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,<sup>7</sup> *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.

### Government engagement

After analyzing laws and regulations and conducting follow-up interviews with respondents for *Doing Business in the European Union 2021: Austria, Belgium and the Netherlands*, the *Subnational Doing Business* team shared preliminary findings of the report with governments and public agencies operating at the national and local levels. Through this process, government authorities had the opportunity to comment on the preliminary data, in meetings with World Bank Group staff as well as in writing (“right of reply” period). Having public officials discuss and comment on the preliminary results has proven to be an important activity, not only to improve the quality of the report but also to enhance the dialogue between the local governments and the World Bank Group at the subnational level.

### World Bank internal review process

Once the team has finalized the indicators, the team prepares a draft report that includes the data findings and analysis. Technical experts that work on the respective indicator areas within the World Bank Group review the text. The



full draft report then undergoes an internal peer review within the World Bank before it is finalized.

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## 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 subset of business environment areas and on the particular case studies analyzed. These areas and case studies are chosen to be illustrative of the business environment, but they do not constitute 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*. In economies where sub-national studies are conducted, the *Doing Business* indicator sets go one step further in offering policy makers a tool to identify good practices that can be adopted more broadly within their economies.

The *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.

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. To ensure the coordination of efforts across agencies, nearly 90 economies have formed reform committees. These committees use the *Doing Business* indicator sets as one input to inform their programs for improving the business environment. Since 2003, governments have reported more than 4,100 business reforms, 1,513 of which have been informed by *Doing Business*.<sup>8</sup>

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.

### Researchers

*Doing Business* data are widely used by researchers in academia, think tanks, international organizations and other institutions. Since 2003, thousands of empirical articles have utilized *Doing Business* data or its conceptual framework to analyze the impact of

business regulation on various economic outcomes.<sup>9</sup>

### Indexes

*Doing Business* collects primary data that are then used by more than 40 different projects to produce aggregate data or indexes across several areas of research.<sup>10</sup> Most of these projects or institutions use the indicator sets directly to produce their own indexes and results; others have developed independent measures adopting a similar format. The Heritage Foundation’s Index of Economic Freedom, for example, has used 22 *Doing Business* indicators to measure the degree of economic freedom in the world in four areas: the rule of law, government size, regulatory efficiency, and market openness.<sup>11</sup>

Similarly, INSEAD uses *Doing Business* data in its Global Talent Competitiveness Index to demonstrate the importance of national talent competitiveness for economic performance. It groups the variables into talent enablers, attraction, growth, retention, and output in terms of vocational and global knowledge skills. The World Economic Forum uses most *Doing Business* indicator sets in its indexes, including but not limited to the Global Competitiveness Index, Networked Readiness Index, and Enabling Trade Index. These sources incorporate the business environment data generated by *Doing Business* into the study of other important social and economic issues across economies and regions.

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## NOTES

1. For 11 economies that had a population of more than 100 million in 2013, *Doing Business* also collects data for the second-largest business city.
2. For the contracting with the government data, see the *Doing Business* website (<https://www.doingbusiness.org/en/data/exploretopics/contracting-with-the-government>).
3. These papers are available on the *Doing Business* website at <http://www.doingbusiness.org/methodology>.

4. Friedrich Schneider, "The Informal Sector in 145 Countries" (Department of Economics, University Linz, Linz, 2005). See also Rafael La Porta and Andrei Shleifer, "The Unofficial Economy and Economic Development," Tuck School of Business Working Paper 2009-57 (Dartmouth College, Hanover, NH, 2008), available at Social Science Research Network (SSRN), <http://ssrn.com/abstract=1304760>.
5. In 2020, data collection visits by the *Doing Business* team were not possible because of the COVID-19 pandemic.
6. In 2020, data collection visits by the *Subnational Doing Business* team were not possible because of the COVID-19 pandemic.
7. Time-and-motion studies are based on the measurement of the separate steps required for completing a transaction or process with the objective of establishing a standard time for each performance. *Doing Business* applies this approach in 7 of the 10 indicator sets to record the time and cost necessary in practice to complete a procedure, based on standardized case study scenarios.
8. These are reforms for which *Doing Business* is aware that information provided by *Doing Business* was used in shaping the reform agenda.
9. Since the publication of the first *Doing Business* report in 2003, more than 3,700 research articles discussing how regulation in the areas measured by *Doing Business* influence economic outcomes have been published in peer-reviewed academic journals; 1,360 of these are published in the top 100 journals. Another 10,300 are published as working papers, books, reports, dissertations or research notes.
10. The projects or indexes using *Doing Business* as a direct source of data are the following: Citi and Imperial College London's Digital Money Index; Cornell University and the World Intellectual Property Organization's Global Innovation Index (GII); DHL's Global Connectedness Index (GCI); The Economist Intelligence Unit's Automation Readiness Index; Fraser Institute's Economic Freedom of the World (EFW) Index; Heritage Foundation's Index of Economic Freedom (IEF); INSEAD's Global Talent Competitiveness Index (GTCI); International Institute for Management Development's World Competitiveness Yearbook; KPMG's Change Readiness Index (CRI); Legatum Institute's Legatum Prosperity Index; Millennium Challenge Corporation's Open Data Catalog; Oxford University's International Civil Service Effectiveness (InCiSE) Index; PricewaterhouseCoopers' "Paying Taxes 2020: The Changing Landscape of Tax Policy and Administration across 190 Economies" report; TRACE's Bribery Risk Matrix; U.S. Chamber of Commerce's Global Rule of Law and Business Dashboard; University of Gothenburg's Quality of Government (QoG) Standard Dataset; World Economic Forum's Enabling Trade Index (ETI), Global Competitiveness Index (GCI), Human Capital Index (HCI); Networked Readiness Index (NRI), and Travel and Tourism Competitiveness Index (TTCI).
11. For more on the Heritage Foundation's Index of Economic Freedom, see the website at <http://heritage.org/index>.