Doing Business 2016

Measuring Regulatory Quality and Efficiency

Regional Profile 2016 OECD High Income



COMPARING BUSINESS REGULATION FOR DOMESTIC FIRMS IN 189 ECONOMIES



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1818 H Street NW, Washington, DC 20433

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INTRODUCTION

Doing Business sheds light on how easy or difficult it is for a local entrepreneur to open and run a small to medium-size business when complying with relevant regulations. It measures and tracks changes in regulations affecting 11 areas in the life cycle of a business: 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 2016 presents the data for the labor market regulation indicators in an annex. The report does not present rankings of economies on labor market regulation indicators or include the topic in the aggregate distance to frontier score or ranking on the ease of doing business.

In a series of annual reports Doing Business presents quantitative indicators on business regulations and the protection of property rights that can be compared across 189 economies, from Afghanistan to Zimbabwe, over time. The data set covers 47 economies in Sub-Saharan Africa, 32 in Latin America and the Caribbean, 25 in East Asia and the Pacific, 25 in Eastern Europe and Central Asia, 20 in the Middle East and North Africa and 8 in South Asia, as well as 32 OECD high-income economies. The indicators are used to analyze economic outcomes and identify what reforms have worked, where and why.

This regional profile presents the *Doing Business* indicators for economies in OECD High Income. It also shows the regional average, the best performance

globally for each indicator and data for the following comparator regions: European Union (EU), East Asia and the Pacific (EAP), Europe and Central Asia (ECA), South Asia (SA) and Latin America.. The data in this report are current as of June 1, 2015 (except for the paying taxes indicators, which cover the period January–December 2014).

The Doing Business methodology has limitations. Other areas important to business-such as an economy's proximity to large markets, the quality of its infrastructure services (other than those related to trading across borders and getting electricity), the security of property from theft and looting, the transparency of government procurement, macroeconomic conditions or the underlying strength of institutions—are not directly studied by Doing Business. The indicators refer to a specific type of business, generally a local limited liability company operating in the largest business city. Because standard assumptions are used in the data collection, comparisons and benchmarks are valid across economies. The data not only highlight the extent of obstacles to doing business; they also help identify the source of those obstacles, supporting policy makers in designing regulatory reform.

More information is available in the full report. *Doing Business 2016* presents the indicators, analyzes their relationship with economic outcomes and recommends regulatory reforms. The data, along with information on ordering the *Doing Business 2016* report, are available on the *Doing Business* website at http://www.doingbusiness.org.

CHANGES IN DOING BUSINESS 2016

As part of a two-year update in methodology, *Doing Business 2016* expands the focus of five indicator sets (dealing with construction permits, getting electricity, registering property, enforcing contracts and labor market regulation), substantially revises the methodology for one indicator set (trading across borders) and implements small updates to the methodology for another (protecting minority investors).

The indicators on dealing with construction permits now include an index of the quality of building regulation and its implementation. The getting electricity indicators now include a measure of the price of electricity consumption and an index of the reliability of electricity supply and transparency of tariffs. Starting this year, the registering property indicators include an index of the quality of the land administration system in each economy in addition to the indicators on the number of procedures and the time and cost to transfer property. And for enforcing contracts an index of the quality and efficiency of judicial processes has been added while the indicator on the number of procedures to enforce a contract has been dropped.

The scope of the labor market regulation indicator set has also been expanded, to include more areas capturing aspects of job quality. The labor market regulation indicators continue to be excluded from the aggregate distance to frontier score and ranking on the ease of doing business. The case study underlying the trading across borders indicators has been changed to increase its relevance. For each economy the export product and partner are now determined on the basis of the economy's comparative advantage, the import product is auto parts, and the import partner is selected on the basis of which economy has the highest trade value in that product. The indicators continue to measure the time and cost to export and import.

Beyond these changes there is one other update in methodology, for the protecting minority investors indicators. A few points for the extent of shareholder governance index have been fine-tuned, and the index now also measures aspects of the regulations applicable to limited companies rather than privately held joint stock companies.

For more details on the changes, see the "What is changing in *Doing Business*?" chapter starting on page 27 of the *Doing Business 2016* report. For more details on the data and methodology, please see the "Data Notes" chapter starting on page 119 of the *Doing Business 2016* report. For more details on the distance to frontier metric, please see the "Distance to frontier and ease of doing business ranking" chapter in this profile.

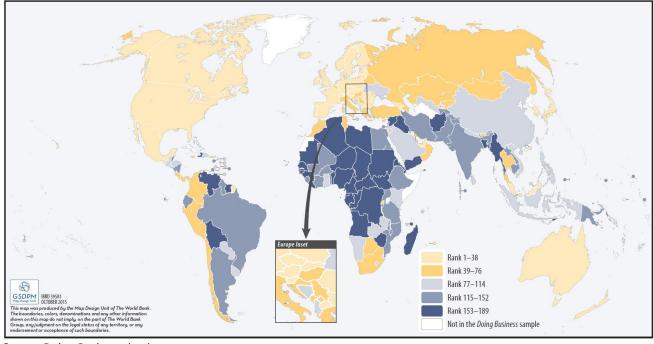
For policy makers trying to improve their economy's regulatory environment for business, a good place to start is to find out how it compares with the regulatory environment in other economies. Doing Business provides an aggregate ranking on the ease of doing business based on indicator sets that measure and benchmark regulations applying to domestic small to medium-size businesses through their life cycle. Economies are ranked from 1 to 189 by the ease of doing business ranking. Doing Business presents results for 2 aggregate measures: the distance to frontier score and the ease of doing business ranking. The ranking of economies is determined by sorting the aggregate distance to frontier scores, rounded to two decimals. 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. (See the chapter on the distance to frontier and ease of doing business).

The 10 topics included in the ranking in *Doing Business* 2016: 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 labor market regulation indicators are not included in this year's aggregate ease of doing business ranking, but the data are presented in the economy profile.

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.

Figure 1.1 Where economies stand in the global ranking on the ease of doing business



Source: Doing Business database.

For policy makers, knowing where their economy stands in regional average (figure 1.2). Another perspective is the aggregate ranking on the ease of doing business is provided by the regional average rankings on the topics useful. Also useful is to know how it ranks compared with included in the ease of doing business ranking (figure 1.3) other economies in the region and compared with the and the distance to frontier scores (figures 1.4 and 1.5).

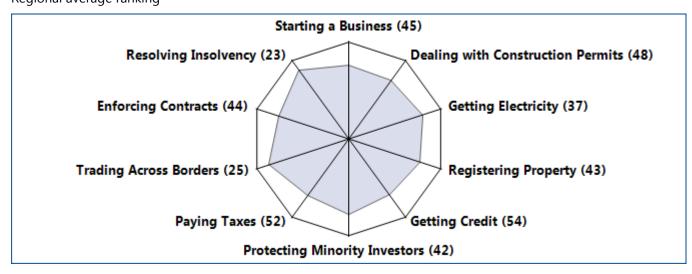
New Zealand (Rank 2) 86.79 Denmark (Rank 3) 84.4 Korea, Rep. (Rank 4) 83.88 United Kingdom (Rank 6) 82.46 United States (Rank 7) 82.15 Sweden (Rank 8) 81.72 Norway (Rank 9) 81.61 Finland (Rank 10) 81.05 Australia (Rank 13) 80.08 Canada (Rank 14) 80.07 Germany (Rank 15) 79.87 Estonia (Rank 16) 79.49 Ireland (Rank 17) 79.15 Iceland (Rank 19) 78.93 Austria (Rank 21) 78.38 Portugal (Rank 23) 77.57 Regional Average (Rank 25) 77.27 Poland (Rank 25) 76.45 Switzerland (Rank 26) 76.04 France (Rank 27) 75.96 Netherlands (Rank 28) 75.94 Slovenia (Rank 29) 75.62 Slovak Republic (Rank 29) 75.62 Spain (Rank 33) 74.86 Japan (Rank 34) 74.72 Czech Republic (Rank 36) 73.95 Hungary (Rank 42) 72.57 Belgium (Rank 43) 72.5 Italy (Rank 45) 72.07 Chile (Rank 48) 71.49 Israel (Rank 53) 70.56 Greece (Rank 60) 68.38 Luxembourg (Rank 61) 68.31 0 100 Distance to frontier score

Figure 1.2 How economies in OECD High Income rank on the ease of doing business

Note: The rankings are benchmarked to June 2015 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. The distance to frontier score benchmarks economies with respect to regulatory practice, showing the absolute distance to the best performance in each Doing Business indicator. 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. For the economies for which the data cover 2 cities, scores are a populationweighted average for the 2 cities. Source: Doing Business database.

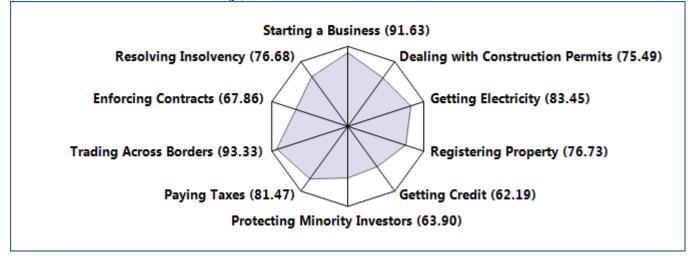
Figure 1.3 Rankings on *Doing Business* topics - OECD High Income

(Scale: Rank 189 center, Rank 1 outer edge) Regional average ranking

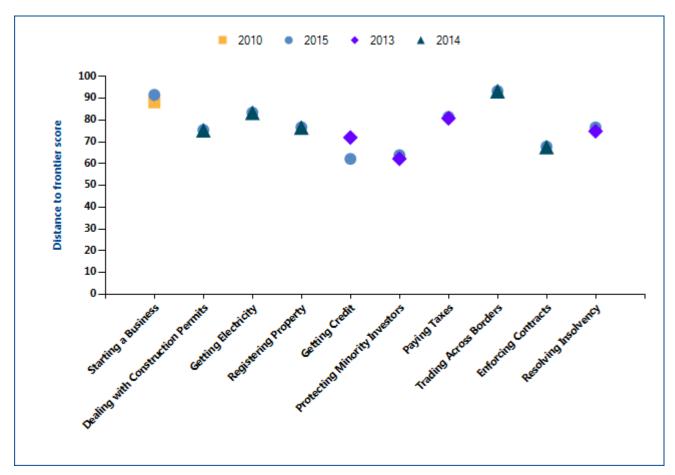


Source: Doing Business database.

Figure 1.4 Distance to frontier scores on *Doing Business* topics - OECD High Income (Scale: Score 0 center, Score 100 outer edge)



Note: The rankings are benchmarked to June 2015 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. The distance to frontier score benchmarks economies with respect to regulatory practice, showing the absolute distance to the best performance in each *Doing Business* indicator. 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. For the economies for which the data cover 2 cities, scores are a population-weighted average for the 2 cities. *Source: Doing Business* database.





Source: Doing Business database.

Note: The distance to frontier score shows how far on average an economy is from the best performance achieved by any economy on each *Doing Business* indicator. Starting a business is comparable to 2010. Getting credit, protecting minority investors, paying taxes and resolving insolvency had methodology changes in 2014 and thus are only comparable to 2013. Dealing with construction permits, registering property, trading across borders, enforcing contracts and getting electricity had methodology changes in 2015 and thus are only comparable to 2014. The measure is normalized to range between 0 and 100, with 100 representing the best performance (the frontier). See the data notes starting on page 119 of the *Doing Business 2016* report for more details on the distance to frontier score.

Just as the overall ranking on the ease of doing business tells only part of the story, so do changes in that ranking. Yearly movements in rankings can provide some indication of changes in an economy's regulatory environment for firms, but they are always relative. An economy's ranking might change because of developments in other economies. An economy that implemented business regulation reforms may fail to rise in the rankings (or may even drop) if it is passed by others whose business regulation reforms had a more significant impact as measured by *Doing Business*. The absolute values of the indicators tell another part of the story (table 1.1). Policy makers can learn much by comparing the indicators for their economy with those for the lowest- and highest-scoring economies in the region as well as those for the best performers globally. These comparisons may reveal unexpected strengths in an area of business regulation—such as a regulatory process that can be completed with a small number of procedures in a few days and at a low cost.

able 1.1 Summary of <i>Doing Business</i> indicators for OECD High Income				
Indicator	Lowest regional performance	Best regional performance	Regional average	Best global performance
Starting a Business (rank)	107 (Germany)	1 (New Zealand)	45	1 (New Zealand)
Starting a Business (DTF Score)	83.37 (Germany)	99.96 (New Zealand)	91.63	99.96 (New Zealand)
Procedures (number)	9.0 (Germany)	1.0 (New Zealand)	4.7	1.0 (New Zealand*)
Time (days)	30.0 (Poland)	0.5 (New Zealand)	8.3	0.5 (New Zealand)
Cost (% of income per capita)	14.5 (Korea, Rep.)	0.0 (Slovenia)	3.2	0.0 (Slovenia)
Paid-in min. capital (% of income per capita)	47.7 (Hungary)	0.0 (16 Economies*)	9.6	0.0 (105 Economies*)
Dealing with Construction Permits (rank)	127 (Czech Republic)	3 (New Zealand)	48	1 (Singapore)
Dealing with Construction Permits (DTF Score)	62.73 (Czech Republic)	87.92 (New Zealand)	75.49	92.97 (Singapore)
Procedures (number)	23.0 (Hungary)	7.0 (Denmark*)	12.4	7.0 (5 Economies*)
Time (days)	286.0 (Slovak Republic)	28.0 (Korea, Rep.)	152.1	26.0 (Singapore)
Cost (% of warehouse value)	6.2 (Ireland)	0.1 (Slovak Republic)	1.7	0.0 (Qatar)
Building quality control index (0-15)	8.0 (Korea, Rep.)	15.0 (New Zealand)	11.4	15.0 (New Zealand)
Getting Electricity (rank)	117 (Hungary)	1 (Korea, Rep.)	37	1 (Korea, Rep.)

Table 1.1 Summary of *Doing Business* indicators for OECD High Income

Indicator	Lowest regional performance	Best regional performance	Regional average	Best global performance
Getting Electricity (DTF Score)	60.11 (Hungary)	99.88 (Korea, Rep.)	83.45	99.88 (Korea, Rep.)
Procedures (number)	7.0 (Spain*)	3.0 (4 Economies*)	4.8	3.0 (14 Economies*)
Time (days)	252.0 (Hungary)	18.0 (Korea, Rep.)	77.7	18.0 (Korea, Rep.*)
Cost (% of income per capita)	225.2 (Spain)	0.0 (Japan)	65.1	0.0 (Japan)
Reliability of supply and transparency of tariff index (0-8)	5.0 (Israel)	8.0 (13 Economies*)	7.2	8.0 (18 Economies*)
Registering Property (rank)	144 (Greece)	1 (New Zealand)	43	1 (New Zealand)
Registering Property (DTF Score)	49.62 (Greece)	94.46 (New Zealand)	76.73	94.46 (New Zealand)
Procedures (number)	10.0 (Greece)	1.0 (3 Economies*)	4.7	1.0 (4 Economies*)
Time (days)	81.0 (Israel)	1.0 (New Zealand*)	21.8	1.0 (3 Economies*)
Cost (% of property value)	12.7 (Belgium)	0.0 (Slovak Republic)	4.2	0.0 (Saudi Arabia)
Quality of the land administration index (0-30)	4.5 (Greece)	28.5 (Netherlands)	22.7	28.5 (3 Economies*)
Getting Credit (rank)	167 (Luxembourg)	1 (New Zealand)	54	1 (New Zealand)
Getting Credit (DTF Score)	15.00 (Luxembourg)	100.00 (New Zealand)	62.19	100.00 (New Zealand)
Strength of legal rights index (0-12)	2.0 (Italy*)	12.0 (New Zealand)	6.0	12.0 (3 Economies*)
Depth of credit information index (0-8)	0.0 (Luxembourg)	8.0 (7 Economies*)	6.5	8.0 (26 Economies*)
Credit registry coverage (% of adults)	1.6 (Germany)	100.0 (Portugal)	11.9	100.0 (Portugal)
Credit bureau coverage (% of adults)	7.7 (Denmark)	100.0 (14 Economies*)	66.7	100.0 (22 Economies*)
Protecting Minority Investors (rank)	122 (Luxembourg)	1 (New Zealand)	42	1 (3 Economies*)
Protecting Minority Investors (DTF Score)	45.00 (Luxembourg)	83.33 (New Zealand)	63.90	83.33 (3 Economies*)
Strength of minority investor protection index (0-10)	4.5 (Luxembourg)	8.3 (New Zealand)	6.4	8.3 (3 Economies*)

Indicator	Lowest regional performance	Best regional performance	Regional average	Best global performance
Extent of conflict of interest regulation index (0-10)	3.3 (Switzerland)	9.3 (New Zealand)	6.3	9.3 (Singapore*)
Extent of shareholder governance index (0- 10)	4.6 (United States)	8.0 (Sweden)	6.4	8.0 (4 Economies*)
Paying Taxes (rank)	137 (Italy)	6 (Ireland)	52	1 (United Arab Emirates*)
Paying Taxes (DTF Score)	62.98 (Italy)	94.97 (Ireland)	81.47	99.44 (United Arab Emirates*)
Payments (number per year)	33.0 (Israel)	4.0 (Norway)	11.1	3.0 (Hong Kong SAR, China*)
Time (hours per year)	405.0 (Czech Republic)	55.0 (Luxembourg)	176.6	55.0 (Luxembourg)
Total tax rate (% of profit)	64.8 (Italy)	20.1 (Luxembourg)	41.2	25.9 (Ireland)
Trading Across Borders (rank)	89 (Australia)	1 (14 Economies*)	25	1 (16 Economies*)
Trading Across Borders (DTF Score)	70.82 (Australia)	100.00 (14 Economies*)	93.33	100.00 (16 Economies*)
Time to export: Border compliance (hours)	62 (Norway)	0 (14 Economies*)	15	0 (15 Economies*)
Cost to export: Border compliance (USD)	749 (Australia)	0 (14 Economies*)	160	0 (18 Economies*)
Time to export: Documentary compliance (hours)	62 (Norway)	1 (21 Economies*)	5	0 (Jordan)
Cost to export: Documentary compliance (USD)	264 (Australia)	0 (16 Economies*)	36	0 (20 Economies*)
Time to import: Border compliance (hours)	64 (Israel)	0 (17 Economies*)	9	0 (19 Economies*)
Cost to import: Border compliance (USD)	655 (Iceland)	0 (19 Economies*)	123	0 (28 Economies*)
Time to import: Documentary compliance (hours)	44 (Israel)	1 (23 Economies*)	4	1 (21 Economies*)
Cost to import: Documentary compliance (USD)	163 (Canada)	0 (22 Economies*)	25	0 (30 Economies*)

Indicator	Lowest regional performance	Best regional performance	Regional average	Best global performance
Enforcing Contracts (rank)	132 (Greece)	2 (Korea, Rep.)	44	1 (Singapore)
Enforcing Contracts (DTF Score)	50.19 (Greece)	84.84 (Korea, Rep.)	67.86	84.91 (Singapore)
Time (days)	1,580.0 (Greece)	216.0 (New Zealand)	538.3	150.0 (Singapore)
Cost (% of claim)	43.9 (United Kingdom)	9.0 (Iceland)	21.1	9.0 (Iceland)
Quality of judicial processes index (0-18)	6.0 (Netherlands)	15.5 (Australia)	11.0	15.5 (3 Economies*)
Resolving Insolvency (rank)	80 (Luxembourg)	1 (Finland)	23	1 (Finland)
Resolving Insolvency (DTF Score)	45.45 (Luxembourg)	93.81 (Finland)	76.68	93.81 (Finland)
Recovery rate (cents on the dollar)	31.0 (Chile)	92.9 (Japan)	72.3	92.9 (Japan)
Time (years)	4.0 (Slovak Republic)	0.4 (Ireland)	1.7	0.4 (Ireland)
Cost (% of estate)	23.0 (Israel)	1.0 (Norway)	9.0	1.0 (Norway)
Strength of insolvency framework index (0-16)	7.0 (Luxembourg)	15.0 (United States*)	12.1	15.0 (4 Economies*)

* Two or more economies share the top ranking on this indicator. A number shown in place of an economy's name indicates the number of economies that share the top ranking on the indicator. For a list of these economies, see the *Doing Business* website (http://www.doingbusiness.org).

Note: The global best performer on time for paying taxes is defined as the lowest time recorded among all economies in the DB2016 sample that levy the 3 major taxes: profit tax, labor taxes and mandatory contributions, and VAT or sales tax. *Source: Doing Business* database.

Formal registration of companies has many immediate benefits for the companies and for business owners and employees. Legal entities can outlive their founders. Resources are pooled as several shareholders join forces to start a company. Formally registered companies have access to services and institutions from courts to banks as well as to new markets. And their employees can benefit from protections provided by the law. An additional benefit comes with limited liability companies. These limit the financial liability of company owners to their investments, so personal assets of the owners are not put at risk. Where governments make registration easy, more entrepreneurs start businesses in the formal sector, creating more good jobs and generating more revenue for the government.

What do the indicators cover?

Doing Business measures the ease of starting a business in an economy by recording all procedures officially required or commonly done in practice by an entrepreneur to start up and formally operate an industrial or commercial business—as well as the time and cost required to complete these procedures. It also records the paid-in minimum capital that companies must deposit before registration (or within 3 months). The ranking of economies on the ease of starting a business is determined by sorting their distance to frontier scores for starting a business. These scores are the simple average of the distance to frontier scores for each of the component indicators.

To make the data comparable across economies, *Doing Business* uses several assumptions about the business and the procedures. It assumes that all information is readily available to the entrepreneur and that there has been no prior contact with officials. It also assumes that the entrepreneur will pay no bribes. And it assumes that the business:

• Is a limited liability company, located in the largest business city¹, is 100% domestically owned with between 10 and 50 employees.

WHAT THE STARTING A BUSINESS INDICATORS MEASURE

Procedures to legally start and operate a company (number)

Preregistration (for example, name verification or reservation, notarization)

Registration in the economy's largest business city¹

Postregistration (for example, social security registration, company seal)

Time required to complete each procedure (calendar days)

Does not include time spent gathering information

Each procedure starts on a separate day (2 procedures cannot start on the same day). Procedures that can be fully completed online are recorded as $\frac{1}{2}$ day.

Procedure completed once final document is received

No prior contact with officials

Cost required to complete each procedure (% of income per capita)

Official costs only, no bribes

No professional fees unless services required by law

Paid-in minimum capital (% of income per capita)

Deposited in a bank or with a notary before registration (or within 3 months)

- Conducts general commercial or industrial activities.
- Has a start-up capital of 10 times income per capita.
- Has a turnover of at least 100 times income per capita.
- Does not qualify for any special benefits.
- Does not own real estate.

¹ For the 11 economies with a population of more than 100 million, data for a second city have been added.

Where do the region's economies stand today?

How easy is it for entrepreneurs in economies in OECD High Income to start a business? The global rankings of these economies on the ease of starting a business suggest an answer (figure 2.1). The average ranking of the region and comparator regions provide a useful benchmark.

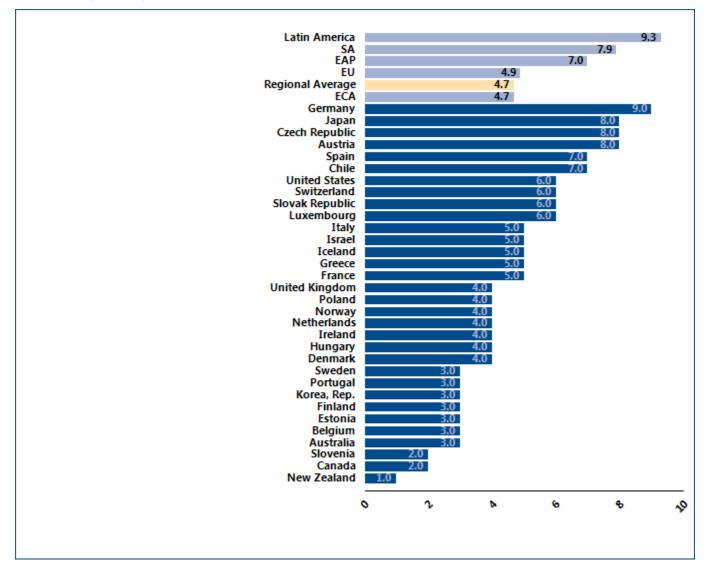


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		Distance to frontier score

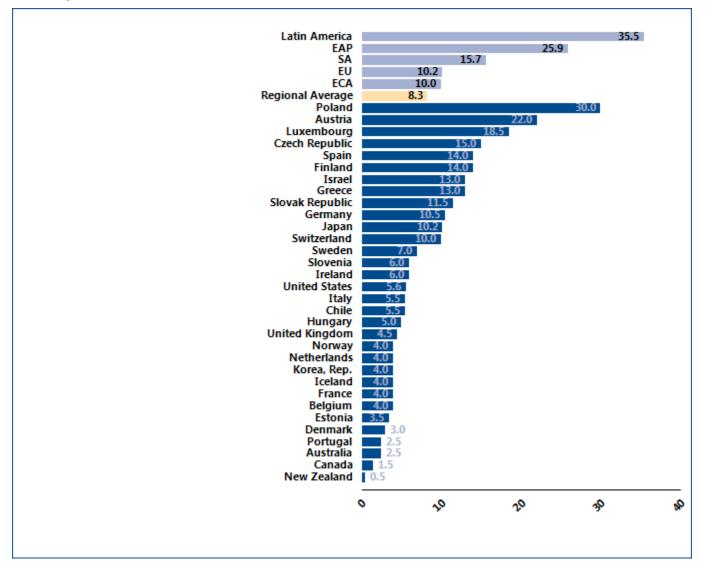
Source: Doing Business database.

The indicators underlying the rankings may be more revealing. Data collected by *Doing Business* show what it takes to start a business in each economy in the region: the number of procedures, the time, the cost and the paid-in minimum capital requirement (figure 2.2). Comparing these indicators across the region and with averages both for the region and for comparator regions can provide useful insights.

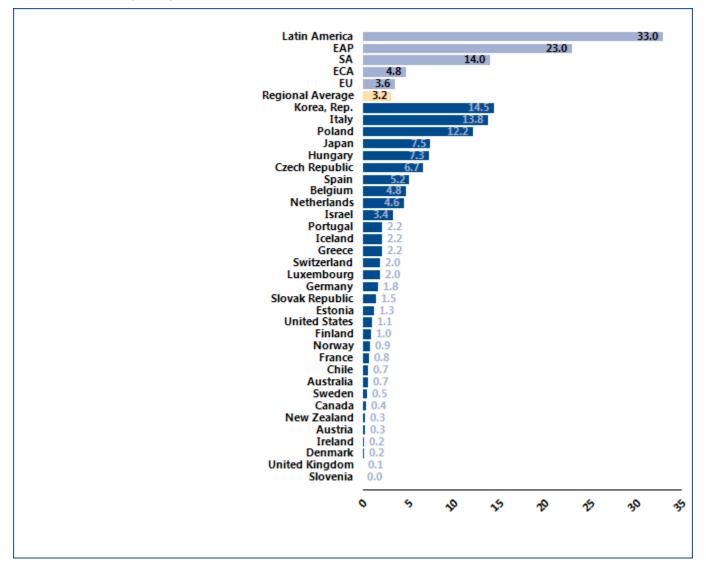
Figure 2.2 What it takes to start a business in economies in OECD High Income **Procedures (number)**



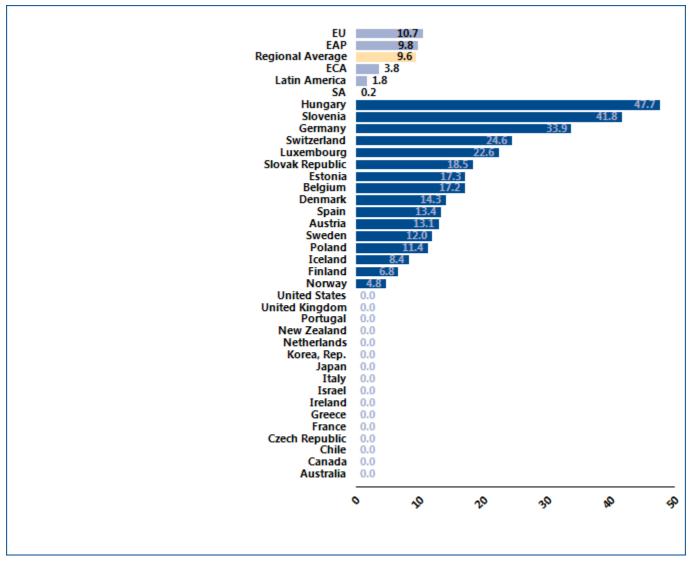
Time (days)



Cost (% of income per capita)



Paid-in minimum capital (% of income per capita)



Source: Doing Business database.

What are the changes over time?

Economies around the world have taken steps making it easier to start a business—streamlining procedures by setting up a one-stop shop, making procedures simpler or faster by introducing technology, and reducing or eliminating minimum capital requirements. Many have undertaken business registration reforms in stages—and often as part of a larger regulatory reform program. Among the benefits have been greater firm satisfaction and savings and more registered businesses, financial resources and job opportunities.

What business registration reforms has *Doing Business* recorded in OECD High Income (table 2.1)?

Table 2.1 How have economies in OECD High Income made starting a business easier—or not?
By Doing Business report year DB2011 to DB2016

DB year	Economy	Reform
DB2016	Germany	Germany made starting a business easier by making the process more efficient and less costly.
DB2016	Denmark	Denmark made starting a business easier by introducing an online platform allowing simultaneous completion of business and tax registration.
DB2016	Estonia	Estonia made starting a business simpler by allowing minimum capital to be deposited at the time of company registration.
DB2016	Norway	Norway made starting a business easier by offering online government registration and online bank account registration.
DB2016	Slovak Republic	The Slovak Republic simplified the process of starting a business by introducing court registration at the one-stop shop.
DB2016	Sweden	Sweden made starting a business easier by requiring the company registry to register a company in five days.
DB2015	Austria	Austria made starting a business easier by reducing the minimum capital requirement, which in turn reduced the paid-in minimum capital requirement, and by lowering notary fees.
DB2015	Switzerland	Switzerland made starting a business easier by introducing online procedures.
DB2015	Czech Republic	The Czech Republic made starting a business easier by substantially reducing the minimum capital requirement and the paid-in minimum capital requirement.
DB2015	Germany	Germany made starting a business more difficult by increasing notary fees.

DB year	Economy	Reform
DB2015	Denmark	Denmark made starting a business easier by reducing the paid-in minimum capital requirement.
DB2015	Spain	Spain made starting a business easier by introducing an electronic system linking several public agencies and thereby simplifying business registration.
DB2015	France	France made starting a business easier by reducing the time it takes to register a company at the one-stop shop (Centre de Formalités des Entreprises).
DB2015	United Kingdom	The United Kingdom made starting a business easier by speeding up tax registration.
DB2015	Greece	Greece made starting a business easier by lowering registration costs.
DB2015	Hungary	Hungary made starting a business more difficult by increasing the paid-in minimum capital requirement.
DB2015	Iceland	Iceland made starting a business easier by offering faster online procedures.
DB2015	Italy	Italy made starting a business easier by reducing both the minimum capital requirement and the paid-in minimum capital requirement and by streamlining registration procedures.
DB2015	Norway	Norway made starting a business easier by eliminating the requirement for limited liability companies to have their balance sheet examined by an external auditor if the capital is paid in cash.
DB2015	Slovak Republic	The Slovak Republic made starting a business easier by reducing the time needed to register with the district court and eliminating the need (and therefore the fee) for the verification of signatures by a notary public.
DB2015	United States	In the United States starting a business became easier in New York City thanks to faster online procedures.
DB2014	Chile	Chile made starting a business easier by creating a new online system for business registration.
DB2014	Spain	Spain made starting a business easier by eliminating the requirement to obtain a municipal license before starting operations and by improving the efficiency of the commercial registry.
DB2014	United Kingdom	The United Kingdom made starting a business easier by providing model articles for use in preparing memorandums and articles of association.
DB2014	Greece	Greece made starting a business easier by introducing a simpler form of limited liability company and abolishing the minimum capital requirement for such companies.
DB2014	Israel	Israel made starting a business easier by reducing the time required for registration at the Income Tax Department and

DB year	Economy	Reform
		the National Insurance Institute.
DB2014	Netherlands	The Netherlands made starting a business easier by abolishing the minimum capital requirement.
DB2014	Poland	Poland made starting a business easier by eliminating the requirement to register the new company at the National Labor Inspectorate and the National Sanitary Inspectorate.
DB2014	Portugal	Portugal made starting a business easier by eliminating the requirement to report to the Ministry of Labor.
DB2014	Slovak Republic	The Slovak Republic made starting a business more difficult by adding a new procedure for establishing a limited liability company.
DB2013	Hungary	Hungary made starting a business more complex by increasing the registration fees for limited liability companies and adding a new tax registration at the time of incorporation.
DB2013	Ireland	Ireland made starting a business easier by introducing a new online facility for business registration.
DB2013	Netherlands	The Netherlands made starting a business easier by eliminating the requirement for a declaration of nonobjection by the Ministry of Justice before incorporation.
DB2013	Norway	Norway made starting a business easier by reducing the minimum capital requirement for private joint stock companies.
DB2013	Slovak Republic	The Slovak Republic made starting a business easier by speeding up the processing of applications at the one-stop shop for trading licenses, income tax registration and health insurance registration.
DB2012	Korea, Rep.	Korea made starting a business easier by introducing a new online one-stop shop, Start-Biz.
DB2012	Chile	Chile made business start-up easier by starting to provide an immediate temporary operating license to new companies, eliminating the requirement for an inspection of premises by the tax authority before new companies can begin operations and allowing free online publication of the notice of a company's creation.
DB2012	Greece	Greece made starting a business easier by implementing an electronic platform that interconnects several government agencies.
DB2012	Portugal	Portugal made starting a business easier by allowing company founders to choose the amount of minimum capital and make their paid-in capital contribution up to 1 year after the company's creation, and by eliminating the stamp tax on company's share capital subscriptions.

DB year	Economy	Reform
DB2012	Spain	Spain eased the process of starting a business by reducing the cost to start a business and decreasing the minimum capital requirement.
DB2011	Sweden	Sweden cut the minimum capital requirement for limited liability companies by half, making it easier to start a business.
DB2011	Slovenia	Slovenia made starting a business easier through improvements to its one-stop shop that allowed more online services.
DB2011	Denmark	Denmark eased business start-up by reducing the minimum capital requirement for limited liability companies from 125,000 Danish kroner (\$22,850) to 80,000 Danish kroner (\$14,620).
DB2011	Italy	Italy made starting a business easier by enhancing an online registration system.
DB2011	Germany	Germany eased business start-up by increasing the efficiency of communications between the notary and the commercial registry and eliminating the need to publish an announcement in a newspaper.
DB2011	Luxembourg	Luxembourg eased business start-up by speeding up the delivery of the business license.
DB2011	Chile	Chile made business start-up easier by introducing an online system for registration and for filing the request for publication.
DB2010	Luxembourg	Luxembourg made starting a business easier by allowing entrepreneurs to reserve a company name online and by eliminating the capital duty.
DB2010	Slovenia	Slovenia made starting a business easier by speeding up company registration, combining tax registration with company registration through the automated e-Vem system and abolishing the requirement for a company seal.
DB2010	Poland	Poland made starting a business easier by reducing the minimum capital requirement and consolidating company registration with registration with the tax, social security and statistics authorities.
DB2010	Korea, Rep.	Korea made starting a business easier by reducing costs, allowing online payment of registration taxes, setting time limits for value added tax registration and eliminating the minimum capital requirement and notarization requirements.
DB2010	Germany	Germany made starting a business easier by reducing the minimum capital requirement to a symbolic amount.
DB2010	Hungary	Hungary made starting a business easier by implementing online registration, with registration confirmed 1 hour after application.

Note: For information on reforms in earlier years (back to DB2005), see the *Doing Business* reports for these years, available at http://www.doingbusiness.org. *Source: Doing Business* database.

Regulation of construction is critical to protect the public. But it needs to be efficient, to avoid excessive constraints on a sector that plays an important part in every economy. Where complying with building regulations is excessively costly in time and money, many builders opt out. They may pay bribes to pass inspections or simply build illegally, leading to hazardous construction that puts public safety at risk. Where compliance is simple, straightforward and inexpensive, everyone is better off.

What do the indicators cover?

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, this year Doing Business introduces a new measure, 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.

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.

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

The construction company (BuildCo):

- 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.
- Is 100% domestically and privately owned with five owners, none of whom is a legal entity.
- Is fully licensed and insured to carry out construction projects, such as building warehouses.

WHAT THE DEALING WITH CONSTRUCTION PERMITS INDICATORS MEASURE

Procedures to legally build a warehouse (number)

- Submitting all relevant documents and obtaining all necessary clearances, licenses, permits and certificates
- Submitting all required notifications and receiving all necessary inspections
- Obtaining utility connections for water and sewerage
- Registering and selling the warehouse after its completion

Time required to complete each procedure (calendar days)

Does not include time spent gathering information

Each procedure starts on a separate day. Procedures that can be fully completed online are recorded as ¹/₂ day

Procedure considered completed once final document is received

No prior contact with officials

Cost required to complete each procedure (% of warehouse value)

Official costs only, no bribes

Building quality control index (0-15)

Sum of the scores of six component indices:

Quality of building regulations (0-2)

Quality control before construction (0-1)

Quality control during construction (0-3)

Quality control after construction (0-3)

Liability and insurance regimes (0-2)

Professional certifications (0-4)

The construction company (BuildCo) (continued):

- 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 at least one employee who is a licensed architect or engineer and registered with the local association of architects or engineers. BuildCo is not assumed to have any other employees who are technical or licensed experts, 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.
- Is valued at 50 times income per capita.

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.

- Will be a new construction (there was 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

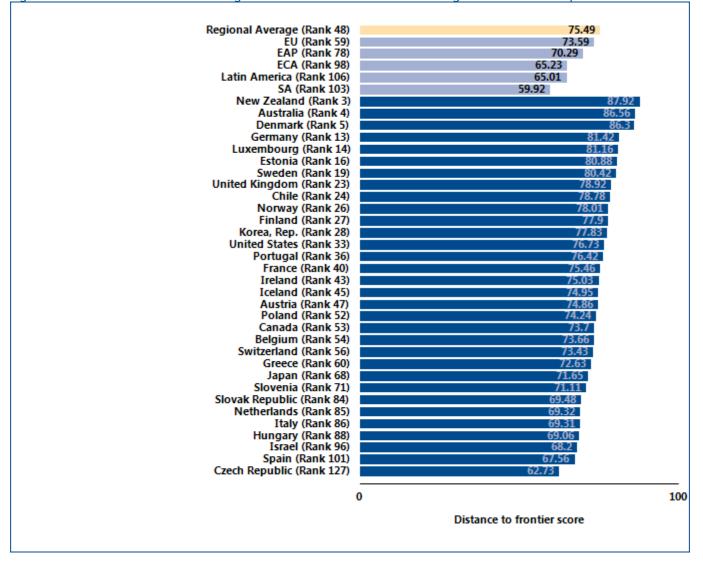
The water and sewerage connections:

- 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.

Where do the region's economies stand today?

How easy it is for entrepreneurs in economies in OECD High Income to legally build a warehouse? The global rankings of these economies on the ease of dealing with construction permits suggest an answer (figure 3.1). The average ranking of the region and comparator regions provide a useful benchmark.

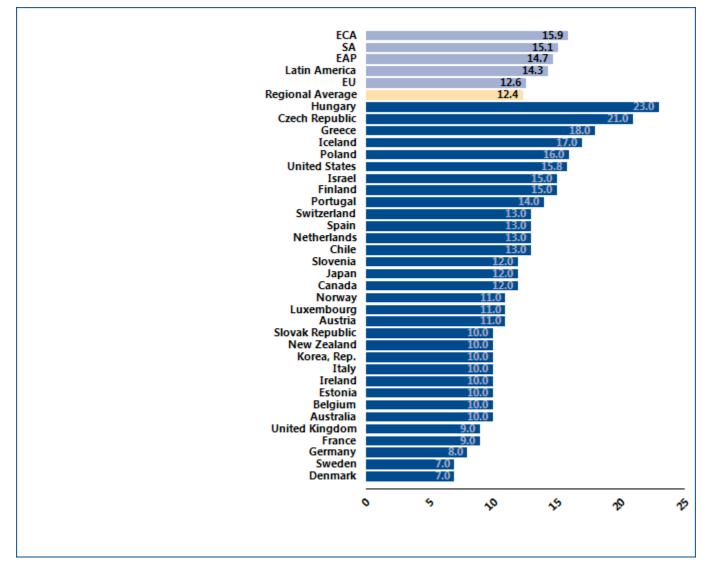




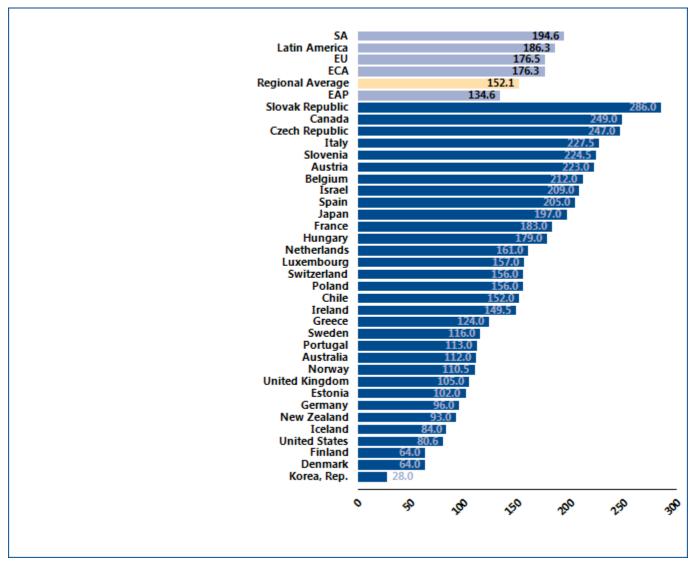
Source: Doing Business database.

The indicators underlying the rankings may be more revealing. Data collected by *Doing Business* show what it takes to comply with formalities to build a warehouse in each economy in the region: the number of procedures, the time and the cost (figure 3.2). Comparing these indicators across the region and with averages both for the region and for comparator regions can provide useful insights.

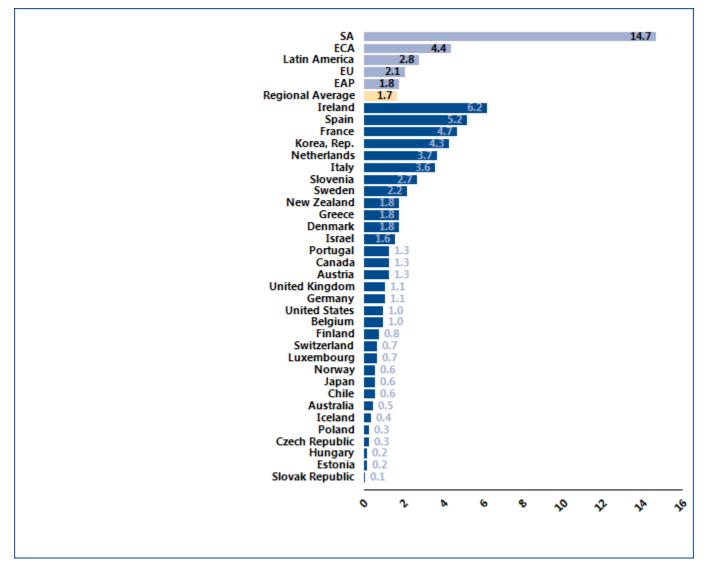
Figure 3.2 What it takes to comply with formalities to build a warehouse in economies in OECD High Income **Procedures (number)**



Time (days)



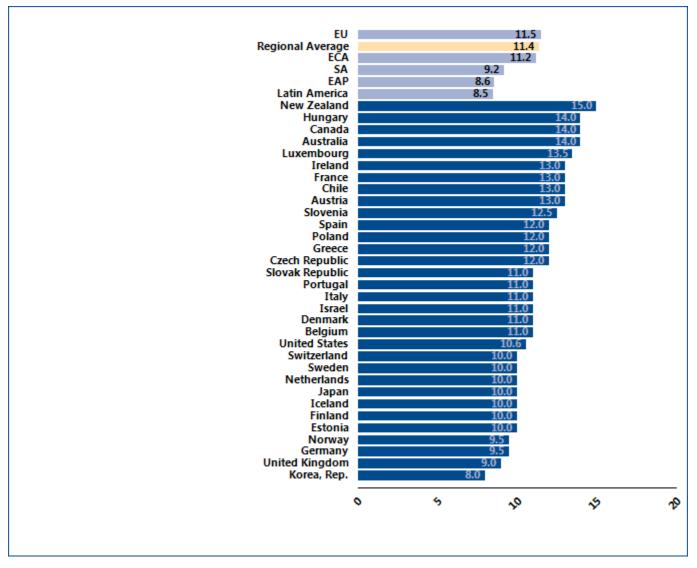
Cost (% of warehouse value)



* Indicates a "no practice" mark. If an economy has no laws or regulations covering a specific area—for example, insolvency—it receives a "no practice" mark. Similarly, an economy receives a "no practice" or "not possible" mark if regulation exists but is never used in practice or if a competing regulation prohibits such practice. Either way, a "no practice" mark puts the economy at the bottom of the ranking on the relevant indicator.

Source: Doing Business database.

Building Quality Control Index (0-15)



* Indicates a "no practice" mark. If an economy has no laws or regulations covering a specific area—for example, insolvency—it receives a "no practice" mark. Similarly, an economy receives a "no practice" or "not possible" mark if regulation exists but is never used in practice or if a competing regulation prohibits such practice. Either way, a "no practice" mark puts the economy at the bottom of the ranking on the relevant indicator.

Note: The index ranges from 0 to 15, with higher values indicating better quality control and safety mechanisms in the construction permitting system. The indicator is based on the same case study assumptions as the measures of efficiency. *Source: Doing Business* database.

DEALING WITH CONSTRUCTION PERMITS What are the changes over time?

Smart regulation ensures that standards are met while making compliance easy and accessible to all. Coherent and transparent rules, efficient processes and adequate allocation of resources are especially important in sectors where safety is at stake. Construction is one of them. In an effort to ensure building safety while keeping compliance costs reasonable, governments around the world have worked on consolidating permitting requirements. What construction permitting reforms has *Doing Business* recorded in OECD High Income (table 3.1)?

Table 3.1 How have economies in OECD High Income made dealing with construction permits easier—or not? By *Doing Business* report year DB2011 to DB2016

DB year	Economy	Reform
DB2014	Denmark	Denmark made dealing with construction permits more costly by increasing the fee for building permits.
DB2014	Poland	Poland made dealing with construction permits easier by eliminating the requirement to obtain a description of the geotechnical documentation of the land.
DB2014	Slovenia	Slovenia made dealing with construction permits easier by eliminating the requirement to obtain project conditions from the water and sewerage provider.
DB2013	Greece	Greece reduced the time required to obtain a construction permit by introducing strict time limits for processing permit applications at the municipality.
DB2013	Netherlands	The Netherlands made dealing with construction permits simpler by merging several approvals and implementing an online application system.
DB2013	Norway	Norway reduced the time required to obtain a building permit by implementing strict time limits for construction project approvals.
DB2013	Portugal	Portugal made obtaining construction permits easier by implementing strict time limits to process urban projects and simplifying the associated procedures.
DB2012	Japan	Japan made dealing with construction permits costlier by increasing inspection fees.
DB2012	Portugal	Portugal made dealing with construction permits easier by streamlining its inspection system.

DB year	Economy	Reform
DB2012	United Kingdom	The United Kingdom made dealing with construction permits easier by increasing efficiency in the issuance of planning permits.
DB2011	Hungary	Hungary implemented a time limit for the issuance of building permits.
DB2011	Iceland	Iceland made dealing with construction permits more costly by increasing the fees to obtain the design approval and receive inspections.
DB2011	Estonia	Estonia made dealing with construction permits more complex by increasing the time for obtaining design criteria from the municipality.
DB2011	Portugal	Portugal made it easier dealing with construction permits by implementing the 95 day time limit for the approval of project designs.
DB2010	United Kingdom	The United Kingdom made dealing with construction permits easier and less time consuming through wider use of approved inspectors.
DB2010	Portugal	Portugal made dealing with construction permits easier by introducing an improved fire safety appraisal system for new construction projects and faster registration of new buildings.
DB2010	New Zealand	New Zealand made dealing with construction permits more costly by raising fees.
DB2010	Netherlands	The Netherlands improved its construction regulation process through a new spatial planning law.
DB2010	Australia	Australia reduced the time needed for dealing with construction permits by streamlining procedures.
DB2010	Czech Republic	The Czech Republic streamlined its construction permitting process by reducing the internal processing time for registering new plots.

Note: For information on reforms in earlier years (back to DB2005), see the *Doing Business* reports for these years, available at http://www.doingbusiness.org.

Source: Doing Business database.

GETTING ELECTRICITY

Access to reliable and affordable electricity is vital for businesses. To counter weak electricity supply, many firms in developing economies have to rely on self-supply, often at a prohibitively high cost. Whether electricity is reliably available or not, the first step for a customer is always to gain access by obtaining a connection.

What do the indicators cover?

Doing Business records all procedures required for a local business to obtain a permanent electricity connection and supply for a standardized warehouse, as well as the time and cost to complete them. These procedures include applications and contracts with electricity utilities, clearances from other agencies and the external and final connection works. In addition, this year Doing Business adds two new 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 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 each of the component indicators. To make the data comparable across economies, several assumptions 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.
- 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), and 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.

WHAT THE GETTING ELECTRICITY

INDICATORS MEASURE

Procedures to obtain an electricity connection (number)

Submitting all relevant documents and obtaining all necessary clearances and permits

Completing all required notifications and receiving all necessary inspections

Obtaining external installation works and possibly purchasing material for these works

Concluding any necessary supply contract and obtaining final supply

Time required to complete each procedure (calendar days)

Is at least 1 calendar day

Each procedure starts on a separate day

Does not include time spent gathering information

Reflects the time spent in practice, with little follow-up and no prior contact with officials

Cost required to complete each procedure (% of income per capita)

Official costs only, no bribes

Excludes value added tax

The reliability of supply and transparency of tariffs index

Sum of the scores of six component indices:

Duration and frequency of outages

Tools to monitor power outages

Tools to restore power supply

Regulatory monitoring of utilities' performance

Financial deterrents aimed at limiting outages

Transparency and accessibility of tariffs

Price of electricity (cents per kilowatt-hour)*

Price based on monthly bill for commercial warehouse in case study

*Price of electricity is not included in the calculation of distance to frontier nor ease of doing business ranking

The warehouse (continued):

- 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, 140-kilovoltampere (kVA) (subscribed capacity) connection (where the voltage is 120/208 V, the current would be 400 amperes; where it is 230/400 B, the current would be nearly 200 amperes).
- Is 150 meters long. The connection is to either the low-voltage or the mediumvoltage distribution network and 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 road (such as by excavation or 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 a negligible length in the customer's private domain.
- Will supply monthly electricity consumption of 26,880 kilowatt-hours (kWh).
- Does not involve work to install the internal electrical wiring. This has already been completed, up to and including the customer's service panel or switchboard and installation of the meter base.

Assumptions about the monthly consumption

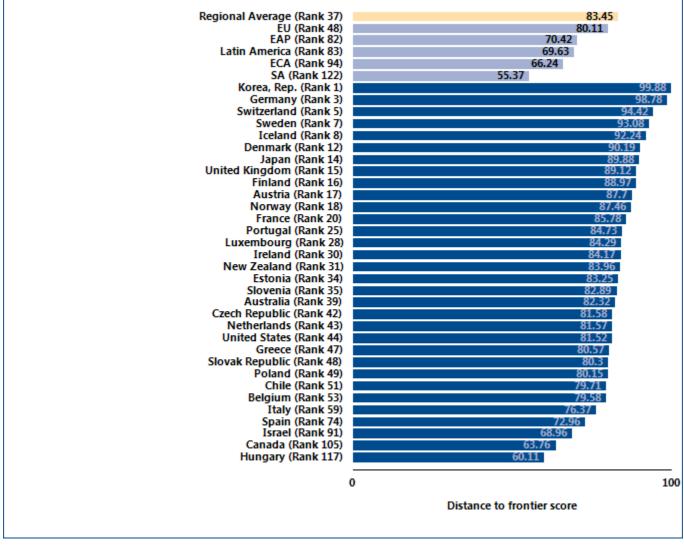
- It is assumed that the warehouse operates 8 hours a day for 30 days a month, with equipment utilized at 80% of capacity on average, and that there are no electricity cuts (assumed for simplicity). The subscribed capacity of the warehouse is 140 kVA, with a power factor of 1 (1 kVA = 1 kW). The monthly energy consumption is therefore 26,880 kWh, and the hourly consumption 112 kWh (26,880 kWh/30 days/8 hours).
- 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.

GETTING ELECTRICITY

Where do the region's economies stand today?

How easy is it for entrepreneurs in economies in OECD High Income to connect a warehouse to electricity? The global rankings of these economies on the ease of getting electricity suggest an answer (figure 4.1). The average ranking of the region and comparator regions provide a useful benchmark.

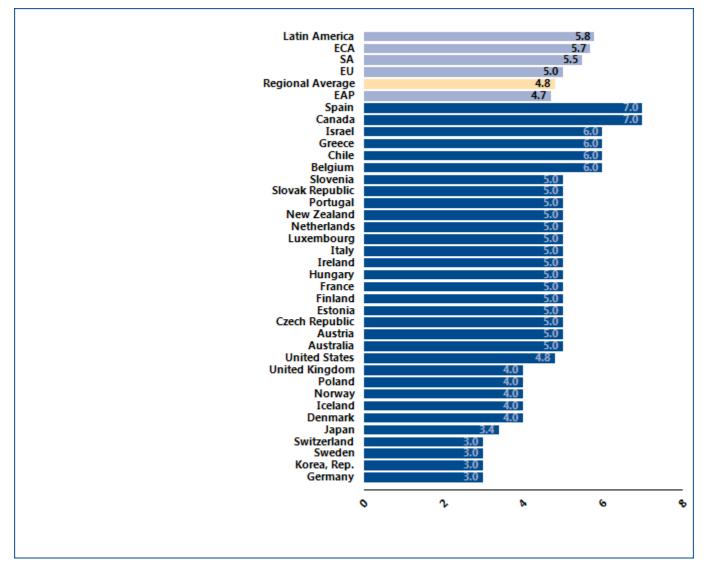
Figure 4.1 How economies in OECD High Income rank on the ease of getting electricity



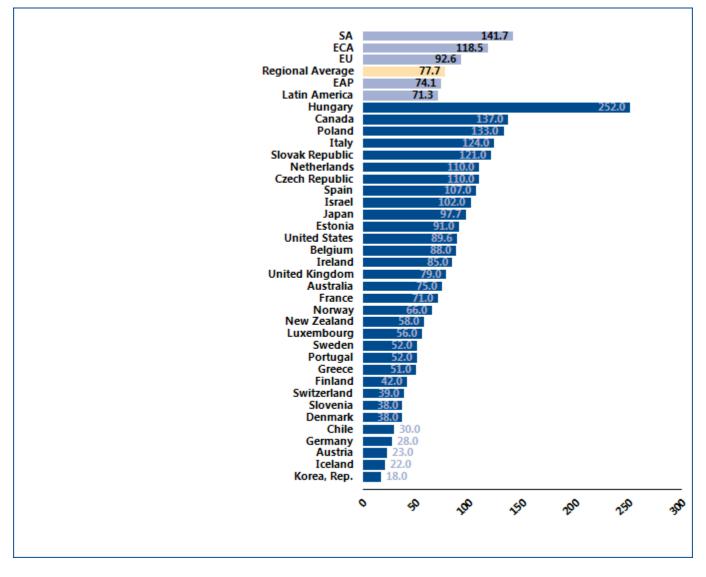
Source: Doing Business database.

The indicators underlying the rankings may be more revealing. Data collected by *Doing Business* show what it takes to get a new electricity connection in each economy in the region: the number of procedures, the time and the cost (figure 4.2). Comparing these indicators across the region and with averages both for the region and for comparator regions can provide useful insights.

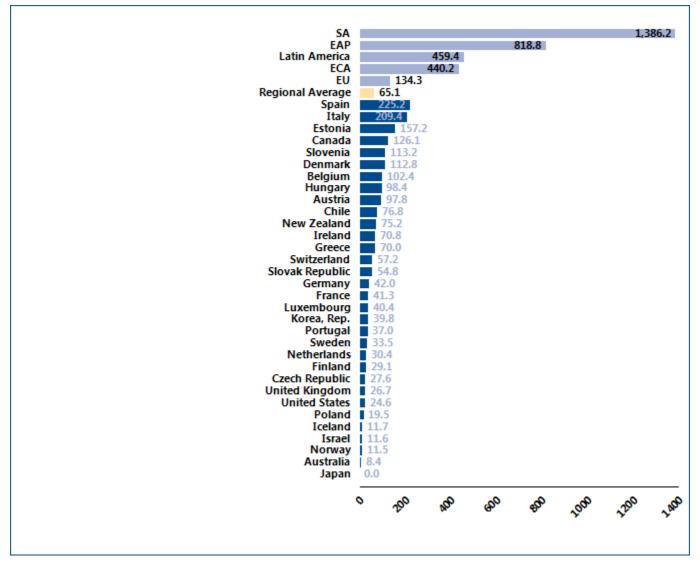
Figure 4.2 What it takes to get an electricity connection in economies in OECD High Income **Procedures (number)**



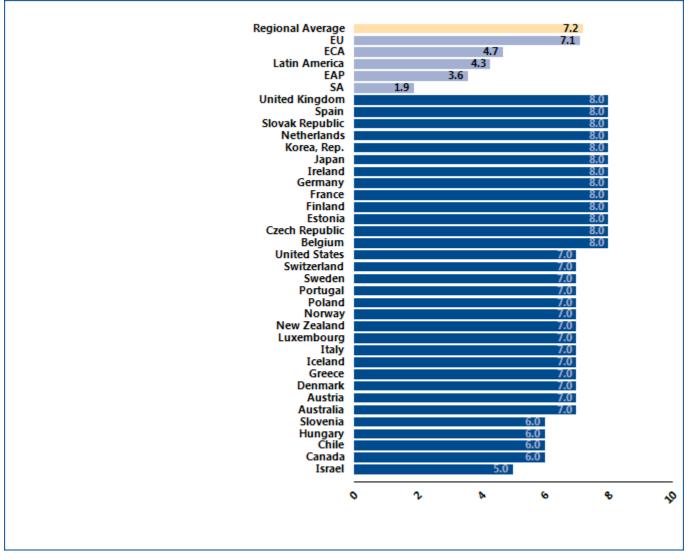
Time (days)



Cost (% of income per capita)



Reliability of supply and transparency of tariff index (0-8)



Source: Doing Business database.

Note: The index ranges from 0 to 8, with higher values indicating greater reliability of electricity supply and greater transparency of tariffs.

What are the changes over time?

Obtaining an electricity connection is essential to enable a business to conduct its most basic operations. In many economies the connection process is complicated by the multiple laws and regulations involved—covering service quality, general safety, technical standards, procurement practices and internal wiring installations. In an effort to ensure safety in the connection process while keeping connection costs reasonable, governments around the world have worked to consolidate requirements for obtaining an electricity connection. What reforms in getting electricity has *Doing Business* recorded in OECD High Income (table 4.1)?

Table 4.1 How have economies in OECD High Income made getting electricity easier—or not? By *Doing Business* report year DB2011 to DB2016

DB year	Economy	Reform
DB2016	New Zealand	The utility in New Zealand reduced the time required for getting an electricity connection by improving its payment monitoring and confirmation process for the connection works.
DB2016	Poland	The utility in Poland reduced delays in processing applications for new electricity connections by increasing human and capital resources and by enforcing service delivery timelines.
DB2015	Poland	Poland made getting electricity less costly by revising the fee structure for new connections.
DB2013	Canada	Canada made getting an electricity connection easier by reducing the time needed for external connection works.
DB2013	Italy	Italy made getting electricity easier and less costly by improving the efficiency of the utility Acea Distribuzione and reducing connection fees.
DB2013	Korea, Rep.	Korea made getting electricity less costly by introducing a new connection fee schedule and an installment payment system.
DB2012	Switzerland	Switzerland made getting electricity less costly by revising the conditions for connections.

Ensuring formal property rights is fundamental. Effective administration of land is part of that. If formal property transfer is too costly or complicated, formal titles might go informal again. And where property is informal or poorly administered, it has little chance of being accepted as collateral for loans—limiting access to finance.

What do the indicators cover?

Doing Business records the full sequence of procedures necessary for a business to purchase property from another business and transfer the property title to the buyer's name. The transaction is considered complete when it is opposable to third parties and when the buyer can use the property, use it as collateral for a bank loan or resell it. In addition, this year Doing Business adds a new measure to the set of registering property indicators, an index of the quality of the land administration system in each economy. The ranking of economies on the ease of registering property is determined by sorting their distance to frontier scores for registering property. These scores are the simple average of the distance to frontier scores for each of the component indicators. To make the data comparable across economies. several assumptions about the parties to the transaction, the property and the procedures are used.

The parties (buyer and seller):

- Are limited liability companies, 100% domestically and privately owned and perform general commercial activities and are located in the economy's largest business city².
- Have 50 employees each, all of whom are nationals.

The property (fully owned by the seller):

- Has a value of 50 times income per capita. The sale price equals the value and entire property will be transferred.
- Is registered in the land registry or cadastre, or both, and is free of title disputes.

WHAT THE REGISTERING PROPERTY INDICATORS MEASURE

Procedures to legally transfer title on immovable property (number)

- Preregistration (for example, checking for liens, notarizing sales agreement, paying property transfer taxes)
- Registration in the economy's largest business city^2
- Postregistration (for example, filing title with the municipality)

Time required to complete each procedure (calendar days)

Does not include time spent gathering information

Each procedure starts on a separate day. Procedures that can be fully completed online are recorded as ½ day.

Procedure considered completed once final document is received

No prior contact with officials

Cost required to complete each procedure (% of property value)

Official costs only, no bribes

No value added or capital gains taxes included

Quality of land administration index (0-30)

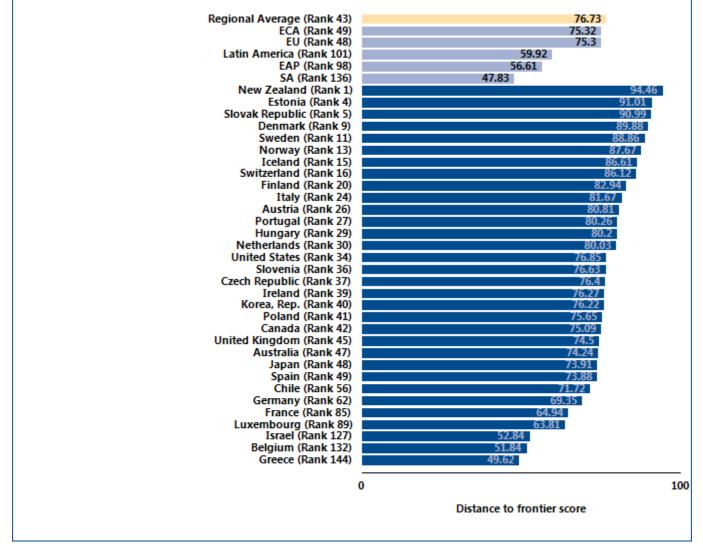
- Is located in a periurban commercial zone, and no rezoning is required.
- Has no mortgages attached, has been under the same ownership for the past 10 years.
- Consists of 557.4 square meters (6,000 square feet) of land and a 10-year-old, 2-story warehouse of 929 square meters (10,000 square feet). The warehouse is in good condition and complies with all safety standards, building codes and legal requirements. There is no heating system.

² For the 11 economies with a population of more than 100 million, data for a second city have been added.

Where do the region's economies stand today?

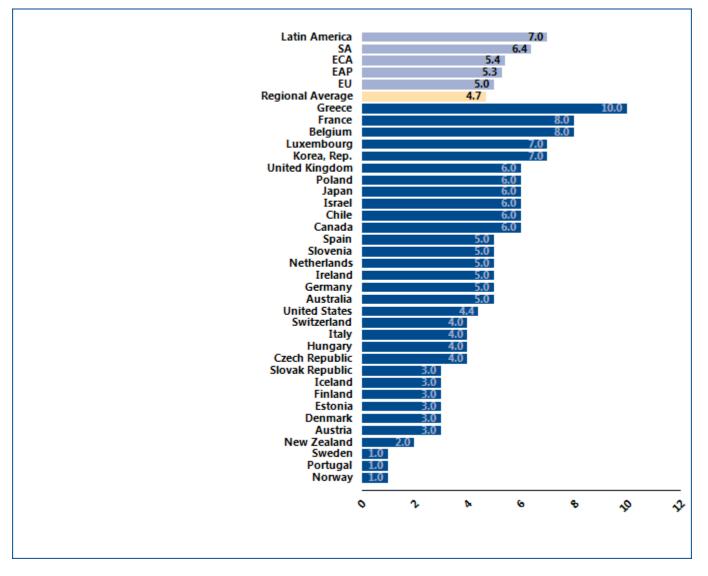
How easy is it for entrepreneurs in economies in OECD High Income to transfer property? The global rankings of these economies on the ease of registering property suggest an answer (figure 5.1). The average ranking of the region and comparator regions provide a useful benchmark.



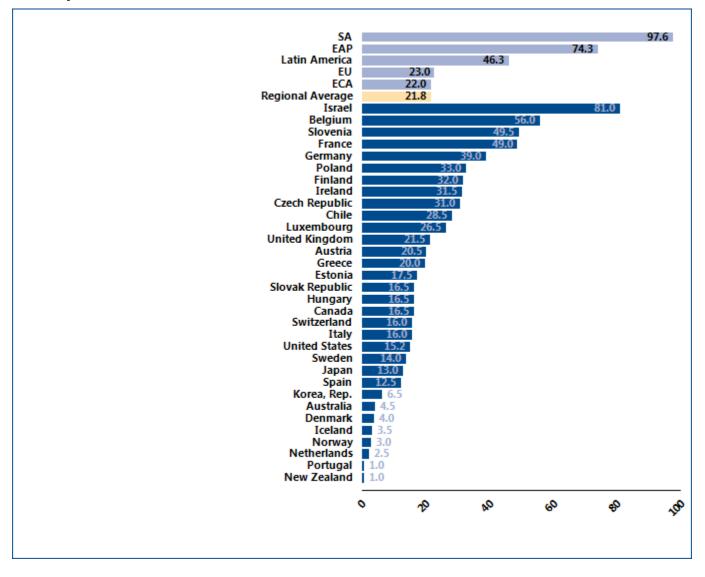


The indicators underlying the rankings may be more revealing. Data collected by *Doing Business* show what it takes to complete a property transfer in each economy in the region: the number of procedures, the time and the cost (figure 5.2). Comparing these indicators across the region and with averages both for the region and for comparator regions can provide useful insights.

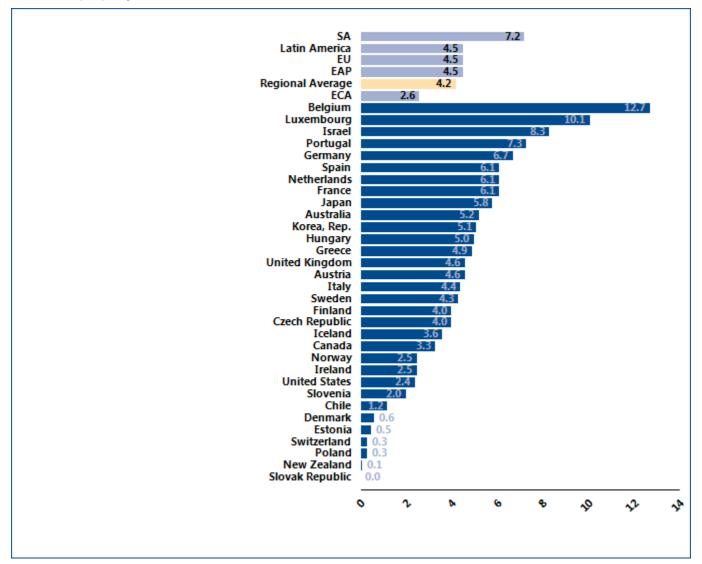
Figure 5.2 What it takes to register property in economies in OECD High Income **Procedures (number)**



Time (days)

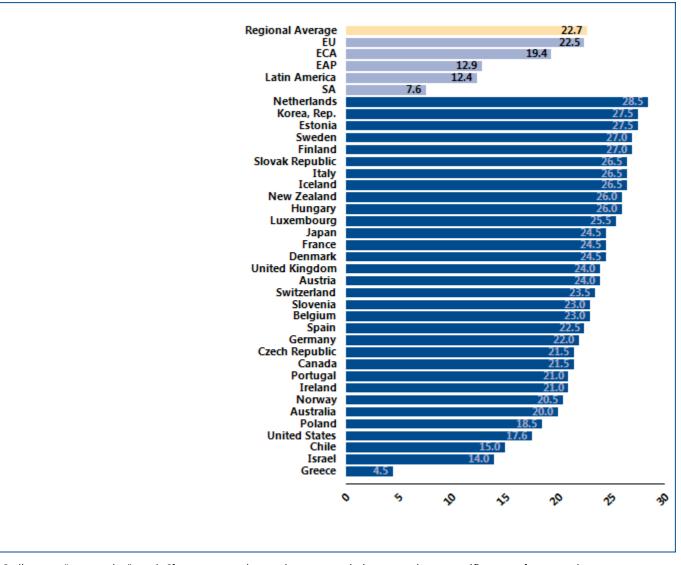


Cost (% of property value)



* Indicates a "no practice" mark. If an economy has no laws or regulations covering a specific area—for example, insolvency—it receives a "no practice" mark. Similarly, an economy receives a "no practice" or "not possible" mark if regulation exists but is never used in practice or if a competing regulation prohibits such practice. Either way, a "no practice" mark puts the economy at the bottom of the ranking on the relevant indicator. *Source: Doing Business* database.

Quality of Land Administration Index (0-30)



* Indicates a "no practice" mark. If an economy has no laws or regulations covering a specific area—for example, insolvency—it receives a "no practice" mark. Similarly, an economy receives a "no practice" or "not possible" mark if regulation exists but is never used in practice or if a competing regulation prohibits such practice. Either way, a "no practice" mark puts the economy at the bottom of the ranking on the relevant indicator. *Source: Doing Business* database.

Note: The index ranges from 0 to 30, with higher values indicating better quality of the land administration system.

What are the changes over time?

Economies worldwide have been making it easier for entrepreneurs to register and transfer property—such as by computerizing land registries, introducing time limits for procedures and setting low fixed fees. Many have cut the time required substantially—enabling buyers to use or mortgage their property earlier. What property registration reforms has *Doing Business* recorded in OECD High Income (table 5.1)?

Table 5.1 How have economies in OECD High Income made registering property easier—or not? By *Doing Business* report year DB2011 to DB2016

DB year	Economy	Reform
DB2016	Belgium	Belgium made transferring property easier by introducing electronic property registration.
DB2016	Switzerland	Switzerland made transferring property easier by introducing a national database to check for encumbrances.
DB2015	Germany	Germany made it more expensive to register property by increasing the property transfer tax.
DB2015	Spain	Spain made transferring property easier by reducing the property transfer tax rate.
DB2015	Greece	Greece made it easier to transfer property by reducing the property transfer tax and removing the requirement for the municipal tax clearance certificate.
DB2015	Ireland	Ireland made transferring property easier by enhancing its computerized system at the land registry and implementing an online system for the registration of title.
DB2015	Iceland	Iceland made transferring property more costly by increasing the stamp duty rate.
DB2015	Korea, Rep.	The Republic of Korea made transferring property easier by reducing the time needed to buy housing bonds and to register the property transfer.
DB2015	Poland	Poland made transferring property easier by introducing online procedures and reducing notary fees.

DB year	Economy	Reform
DB2015	Sweden	Sweden made registering property easier by fully implementing a new system for property registration.
DB2014	Czech Republic	The Czech Republic made transferring property more costly by increasing the property transfer tax rate.
DB2014	France	France made transferring property easier by speeding up the registration of the deed of sale at the land registry.
DB2014	United Kingdom	The United Kingdom made transferring property easier by introducing electronic lodgment for property transfer applications.
DB2014	Italy	Italy made transferring property easier by eliminating the requirement for an energy performance certificate for commercial buildings with no heating system.
DB2014	Netherlands	The Netherlands made transferring property easier by increasing the efficiency of the title search process.
DB2013	Czech Republic	The Czech Republic made registering property easier by allowing the cadastral office online access to the commercial registry's database and thus eliminating the need to obtain a paper certificate from the registry before applying for registration at the cadastre.
DB2013	Denmark	Denmark made registering property easier by introducing electronic submission of property transfer applications at the land registry.
DB2013	Ireland	Ireland made property transfers less costly by introducing a single stamp duty rate for transfers of nonresidential property. It also extended compulsory registration to all property in Ireland.
DB2013	Israel	Israel made transferring property easier by tightening time limits for tax authorities to process capital gains self- assessments on property transfers.
DB2013	Italy	Italy made transferring property easier by digitizing cadastral maps of properties and making the maps available to notaries online.

DB year	Economy	Reform
DB2013	Poland	Poland made property registration faster by introducing a new caseload management system for the land and mortgage registries and by continuing to digitize the records of the registries.
DB2013	Sweden	In Sweden property transfers became more time consuming during implementation of a new information technology system at the land registry.
DB2012	Sweden	Sweden increased the cost of transferring property between companies.
DB2012	Slovenia	Slovenia made transferring property easier and less costly by introducing online procedures and reducing fees.
DB2012	Belgium	Belgium made property registration quicker for entrepreneurs by setting time limits and implementing its "e-notariat" system.
DB2012	Czech Republic	The Czech Republic speeded up property registration by computerizing its cadastral office, digitizing all its data and introducing electronic communications with notaries.
DB2011	Belgium	Belgium's capital city, Brussels, made it more difficult to transfer property by requiring a clean-soil certificate.
DB2011	Denmark	Computerization of Denmark's land registry cut the number of procedures required to register property by half.
DB2011	Greece	Greece made transferring property more costly by increasing the transfer tax from 1% of the property value to 10%.
DB2011	Hungary	Hungary reduced the property registration fee by 6% of the property value.
DB2011	Poland	Poland eased property registration by computerizing its land registry.
DB2011	Austria	Austria made it easier to transfer property by requiring online submission of all applications to register property transfers.
DB2011	Sweden	Sweden made registering property easier by eliminating the

DB year	Economy	Reform
		requirement to obtain a preemption waiver from the municipality
DB2011	Portugal	Portugal established a one-stop shop for property registration.
DB2011	Slovenia	Greater computerization in Slovenia's land registry reduced delays in property registration by 75%.
DB2010	United Kingdom	The United Kingdom speeded up property registration by introducing automatic electronic processing of the land transaction return.
DB2010	Belgium	Belgium made transferring property easier by setting statutory time limits for some procedures.
DB2010	Ireland	Ireland made registering property easier by reducing the maximum chargeable stamp duty for property transactions.
DB2010	Portugal	Portugal speeded up property registration through computerization at the registry backed by an amendment to the registry code making the use of notaries optional.
DB2010	Estonia	Estonia made registering property easier by computerizing property records at the land registry and thereby enabling notaries to carry out the process online.
DB2010	France	France made transferring property easier and less time consuming by more fully implementing an online system that enables notaries to obtain encumbrance and ownership documents from the land registry electronically.
DB2010	Czech Republic	The Czech Republic made registering property easier through ongoing reorganization of the registry combined with computerization.

Note: For information on reforms in earlier years (back to DB2005), see the *Doing Business* reports for these years, available at http://www.doingbusiness.org.

Two types of frameworks can facilitate access to credit and improve its allocation: credit information systems and borrowers and lenders in collateral and bankruptcy laws. Credit information systems enable lenders' rights to view a potential borrower's financial history (positive or negative)—valuable information to consider when assessing risk. And they permit borrowers to establish a good credit history that will allow easier access to credit. Sound collateral laws enable businesses to use their assets, especially movable property, as security to generate capital while strong creditors' rights have been associated with higher ratios of private sector credit to GDP.

What do the indicators cover?

Doing Business assesses the sharing of credit information and the legal rights of borrowers and lenders with respect to secured transactions through 2 sets of indicators. The depth of credit information index measures rules and practices affecting the coverage, scope and accessibility of credit information available through a credit registry or a credit bureau. The strength of legal rights index measures whether certain features that facilitate lending exist within the applicable collateral and bankruptcy laws. Doing Business uses two case scenarios, Case A and Case B, to determine the scope of the secured transactions system, involving a secured borrower and a secured lender and examining legal restrictions on the use of movable collateral (for more details on each case, see the Data Notes section of the Doing Business 2016 report). These scenarios assume that the borrower:

• Is a private limited liability company.

Has its headquarters and only base of operations in the largest business city. For the 11 economies with a population of more than 100 million, data for a second city have been added.

WHAT THE GETTING CREDIT INDICATORS

MEASURE

Strength of legal rights index (0–12)

Rights of borrowers and lenders through collateral laws

Protection of secured creditors' rights through bankruptcy laws

Depth of credit information index (0–8)

Scope and accessibility of credit information distributed by credit bureaus and credit registries

Credit bureau coverage (% of adults)

Number of individuals and firms listed in largest credit bureau as percentage of adult population

Credit registry coverage (% of adults)

Number of individuals and firms listed in credit registry as percentage of adult population

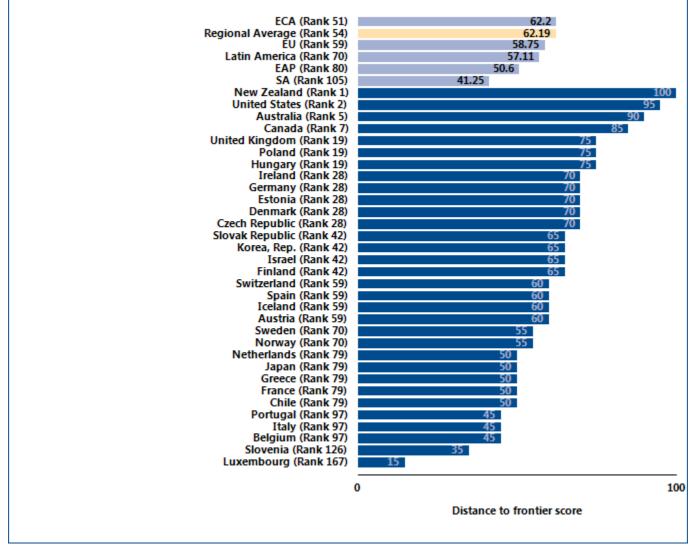
- Has up to 50 employees.
- Is 100% domestically owned, as is the lender.

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 strength of legal rights index and the depth of credit information index.

Where do the region's economies stand today?

How well do the credit information systems and collateral and bankruptcy laws in economies in OECD High Income facilitate access to credit? The global rankings of these economies on the ease of getting credit suggest an answer (figure 6.1). The average ranking of the region and comparator regions provide a useful benchmark.

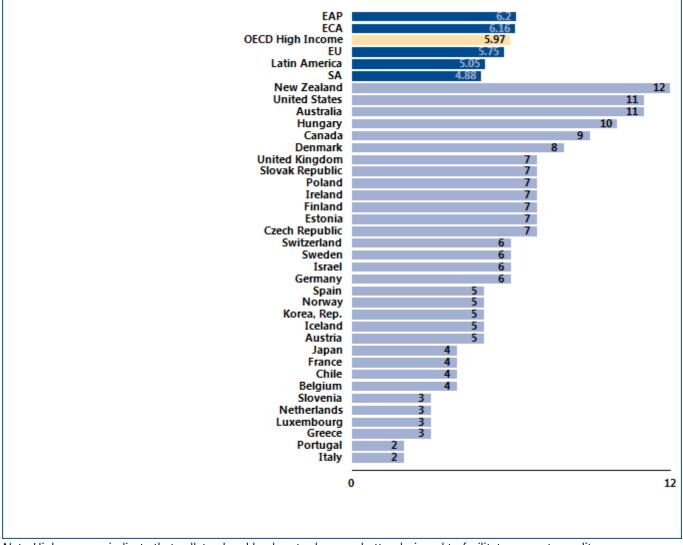
Figure 6.1 How economies in OECD High Income rank on the ease of getting credit



Another way to assess how well regulations and institutions support lending and borrowing in the region is to see where the region stands in the distribution of scores across regions. Figure 6.2 highlights the score on the strength of legal rights index for OECD High Income and comparators on the strength of legal rights index. Figure 6.3 shows the same thing for the depth of credit information index.



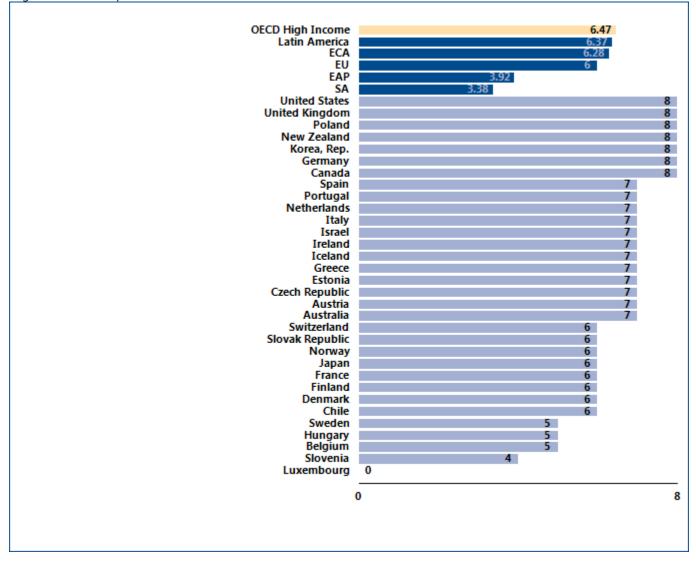
Region scores on strength of legal rights index



Note: Higher scores indicate that collateral and bankruptcy laws are better designed to facilitate access to credit. *Source: Doing Business* database.

Figure 6.3 How much credit information is shared—and how widely?

Region scores on depth of credit information index



Note: Higher scores indicate the availability of more credit information, from either a credit registry or a credit bureau, to facilitate lending decisions. If the credit bureau or registry is not operational or covers less than 5% of the adult population, the total score on the depth of credit information index is 0. *Source: Doing Business* database.

What are the changes over time?

When economies strengthen the legal rights of lenders and borrowers under collateral and bankruptcy laws, and increase the scope, coverage and accessibility of credit information, they can increase entrepreneurs' access to credit. What credit reforms has *Doing Business* recorded in OECD High Income (table 6.1)?

Table 6.1 How have economies in OECD High Income made getting credit easier—or not? By *Doing Business* report year DB2011 to DB2016

DB year	Economy	Reform
DB2015	Czech Republic	The Czech Republic improved access to credit by adopting a new legal regime on secured transactions that allows the registration of receivables at the collateral registry and permits out-of-court enforcement of collateral.
DB2015	Hungary	Hungary improved access to credit by adopting a new legal regime on secured transactions that implements a functional approach to secured transactions, extends security interests to the products and proceeds of the original asset and establishes a modern, notice-based collateral registry.
DB2015	Ireland	Ireland improved its credit information system by passing a new act that provides for the establishment and operation of a credit registry.
DB2015	New Zealand	New Zealand improved access to credit information by beginning to distribute both positive and negative credit information.
DB2015	Slovak Republic	The Slovak Republic improved its credit information system by implementing a new law on the protection of personal data.
DB2014	Australia	Australia improved its credit information system through the Privacy Amendment (Enhancing Privacy Protection) Act 2012, which permits credit bureaus to collect account payment history with improved privacy protection.
DB2014	Korea, Rep.	Korea revised its secured transactions framework by creating new types of security rights that can be publicized through registration.
DB2014	Netherlands	The Netherlands weakened its secured transactions system through an amendment to the Collection of State Taxes Act that grants priority outside bankruptcy to tax claims over

DB year	Economy	Reform
		secured creditors' claims.
DB2013	Australia	Australia strengthened its secured transactions system by adopting a new national legal regime governing the enforceability of security interests in personal property and implementing a unified collateral registry.
DB2013	Hungary	Hungary improved access to credit information by passing its first credit bureau law mandating the creation of a database with positive credit information on individuals.
DB2013	New Zealand	New Zealand improved access to credit information by allowing credit bureaus to collect positive information on individuals.
DB2012	Slovak Republic	The Slovak Republic improved its credit information system by guaranteeing by law the right of borrowers to inspect their own data.
DB2012	Hungary	Hungary reduced the amount of credit information available from private credit bureaus by shortening the period for retaining data on defaults and late payments (if repaid) from 5 years to 1 year.
DB2012	Chile	Chile strengthened its secured transactions system by implementing a unified collateral registry and a new legal framework for nonpossessory security interests.
DB2011	Estonia	Estonia improved access to credit by amending the Code of Enforcement Procedure and allowing out-of-court enforcement of collateral by secured creditors.
DB2010	Greece	Greece's private credit bureau, Tiresias, expanded the amount of information it distributes in credit reports, improving access to credit information.
DB2010	Sweden	Sweden strengthened its secured transactions system through changes to the Rights of Priority Act that give secured creditors' claims priority in cases of debtor default outside bankruptcy.
DB2010	Poland	Poland strengthened its secured transactions system by allowing all legal persons, including foreign entities, to hold a security interest in the form of a pledge and improved access to credit information by starting to collect and distribute information on firms.

Note: For information on reforms in earlier years (back to DB2005), see the *Doing Business* reports for these years, available at http://www.doingbusiness.org. *Source: Doing Business* database.

Protecting minority investors matters for the ability of companies to raise the capital they need to grow, innovate, diversify and compete. Effective regulations define related-party transactions precisely, promote clear and efficient disclosure requirements, require shareholder participation in major decisions of the company and set detailed standards of accountability for company insiders.

What do the indicators cover?

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. 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. To make the data comparable across economies, a case study uses several assumptions about the business and the transaction.

The business (Buyer):

- Is a publicly traded corporation listed on the economy's most important stock exchange (or at least 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.

The transaction involves the following details:

- Mr. James, a director and the majority shareholder of the company, proposes that the company purchase used trucks from another company he owns.
- The price is higher than the going price for used trucks, but the transaction goes forward.
- All required approvals are obtained, and all required disclosures made, though the transaction is prejudicial to Buyer.
- Shareholders sue the interested parties and the members of the board of directors.

WHAT THE PROTECTING MINORITY INVESTORS INDICATORS MEASURE

Extent of disclosure index (0–10)

Review and approval requirements for related-party transactions; Disclosure requirements for related-party transactions

Extent of director liability index (0–10)

Ability of minority shareholders to sue and hold interested directors liable for prejudicial related-party transactions; Available legal remedies (damages, disgorgement of profits, fines, imprisonment, rescission of the transaction)

Ease of shareholder suits index (0–10)

Access to internal corporate documents; Evidence obtainable during trial and allocation of legal expenses

Extent of conflict of interest regulation index (0–10)

Simple average of the extent of disclosure, extent of director liability and ease of shareholder indices

Extent of shareholder rights index (0-10)

Shareholders' rights and role in major corporate decisions

Extent of ownership and control index (0-10)

Governance safeguards protecting shareholders from undue board control and entrenchment

Extent of corporate transparency index (0-10)

Corporate transparency on ownership stakes, compensation, audits and financial prospects

Extent of shareholder governance index (0– 10)

Simple average of the extent of shareholders rights, extent of ownership and control and extent of corporate transparency indices

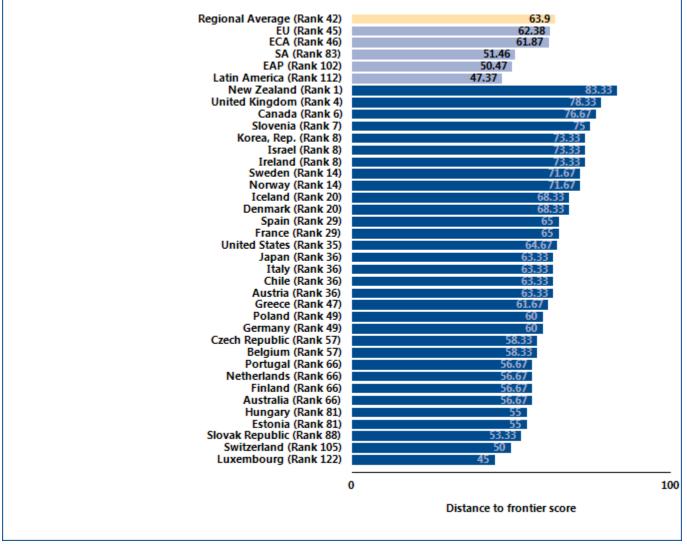
Strength of investor protection index (0–10)

Simple average of the extent of conflict of interest regulation and extent of shareholder governance indices

Where do the region's economies stand today?

How strong are investor protections against self-dealing in economies in OECD High Income? The global rankings of these economies on the strength of investor protection index suggest an answer (figure 7.1). While the indicator does not measure all aspects related to the protection of minority investors, a higher ranking does indicate that an economy's regulations offer stronger investor protections against self-dealing in the areas measured.

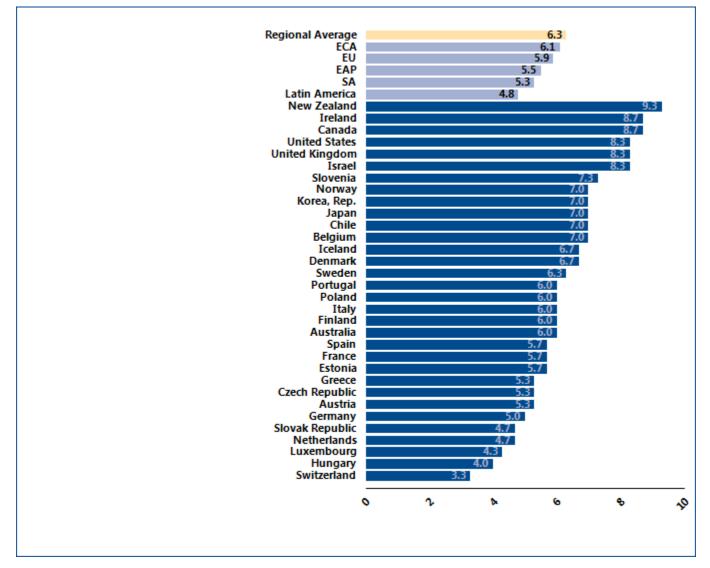
Figure 7.1 How economies in OECD High Income rank on the strength of investor protection index



The strength of minority investor protection index is the average of the extent of conflict of interest regulation index and the extent of shareholder governance index. The index ranges from 0 to 10, rounded to the nearest decimal place, with higher values indicating stronger minority investor protections. Figures 7.2 and 7.3

highlight the scores on the various minority investor protection indices for OECD High Income. Comparing the scores across the region and with averages both for the region and for comparator regions can provide useful insights.

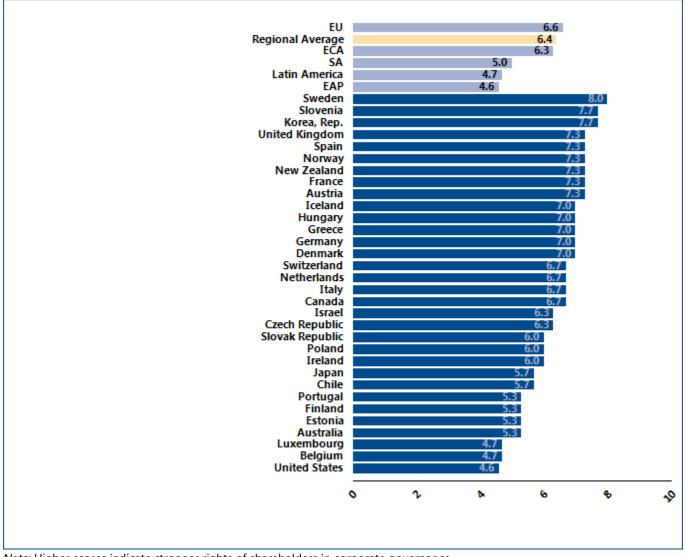
Figure 7.2 How extensive are conflict of interest regulations? **Extent of conflict of interest regulation index (0-10)**



Note: Higher values indicate stronger regulation of conflicts of interest. *Source: Doing Business* database.

Figure 7.3 How extensive is shareholder governance?

Extent of shareholder governance index (0-10)



Note: Higher scores indicate stronger rights of shareholders in corporate governance. *Source: Doing Business* database.

What are the changes over time?

Economies with the strongest protections of minority investors from self-dealing require detailed disclosure and define clear duties for directors. They also have wellfunctioning courts and up-to-date procedural rules that give minority shareholders the means to prove their case and obtain a judgment within a reasonable time. So reforms to strengthen minority investor protections may move ahead on different fronts—such as through new or amended company laws, securities regulations or revisions to court procedures. What minority investor protection reforms has *Doing Business* recorded in OECD High Income (table 7.1)?

Table 7.1 How have economies in OECD High Income strengthened minority investor protections—or not? By *Doing Business* report year DB2011 to DB2016

DB year	Economy	Reform
DB2016	Spain	Spain strengthened minority investor protections by requiring that major sales of company assets be subject to shareholder approval.
DB2016	Ireland	Ireland strengthened minority investor protections by introducing provisions stipulating that directors can be held liable for breach of their fiduciary duties.
DB2015	Switzerland	Switzerland strengthened minority investor protections by increasing the level of transparency required from publicly traded companies.
DB2015	Korea, Rep.	The Republic of Korea strengthened minority investor protections by increasing the level of transparency expected from companies on managerial compensation.
DB2014	Greece	Greece strengthened investor protections by introducing a requirement for director approval of related-party transactions.
DB2013	Korea, Rep.	Korea strengthened investor protections by making it easier to sue directors in cases of prejudicial related-party transactions.
DB2013	Netherlands	The Netherlands strengthened investor protections through a new law regulating the approval of related-party transactions.

DB year	Economy	Reform
DB2013	Slovenia	Slovenia strengthened investor protections through a new law regulating the approval of related-party transactions.
DB2013	Greece	Greece strengthened investor protections by requiring greater immediate and annual disclosure of material related- party transactions.
DB2012	Iceland	Iceland strengthened investor protections by introducing new requirements relating to the approval of transactions between interested parties.
DB2011	Sweden	Sweden strengthened investor protections by requiring greater corporate disclosure and regulating the approval of transactions between interested parties.
DB2011	Chile	An amendment to Chile's securities law strengthened investor protections by requiring greater corporate disclosure and regulating the approval of transactions between interested parties.

Note: For information on reforms in earlier years (back to DB2005), see the *Doing Business* reports for these years, available at http://www.doingbusiness.org.

Taxes are essential. The level of tax rates needs to be carefully chosen—and needless complexity in tax rules avoided. Firms in economies that rank better on the ease of paying taxes in the *Doing Business* study tend to perceive both tax rates and tax administration as less of an obstacle to business according to the World Bank Enterprise Survey research.

What do the indicators cover?

Using a case scenario, Doing Business records the taxes and mandatory contributions that a mediumsize company must pay in a given year as well as measures of the administrative burden of paying taxes and contributions. This case scenario uses a set of financial statements and assumptions about transactions made over the year. Information is also compiled on the frequency of filing and payments as well as time taken to comply with tax laws. The ranking of economies on the ease of paying taxes is determined by sorting their distance to frontier scores on the ease of paying taxes. These scores are the simple average of the distance to frontier scores for each of the component indicators, with a threshold and a nonlinear transformation applied to one of the component indicators, the total tax rate³. The financial statement variables have been updated to be proportional to 2012 income per capita; previously they were proportional to 2005 income per capita. To make the data comparable across economies, several assumptions are used.

- TaxpayerCo is a medium-size business that started operations on January 1, 2013.
- The business starts from the same financial position in each economy. All the taxes and mandatory contributions paid during the second year of operation are recorded.

WHAT THE PAYING TAXES INDICATORS MEASURE

Tax payments for a manufacturing company in 2014 (number per year adjusted for electronic and joint filing and payment)

Total number of taxes and contributions paid, including consumption taxes (value added tax, sales tax or goods and service tax)

Method and frequency of filing and payment

Time required to comply with 3 major taxes (hours per year)

Collecting information and computing the tax payable

Completing tax return forms, filing with proper agencies

Arranging payment or withholding

Preparing separate tax accounting books, if required

Total tax rate (% of profit before all taxes)

Profit or corporate income tax

Social contributions and labor taxes paid by the employer

Property and property transfer taxes

Dividend, capital gains and financial transactions taxes

Waste collection, vehicle, road and other taxes

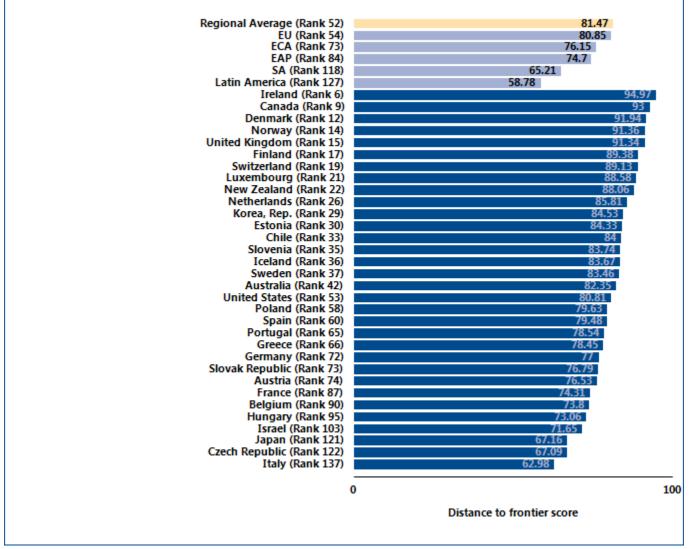
- Taxes and mandatory contributions are measured at all levels of government.
- Taxes and mandatory contributions include corporate income tax, turnover tax and all labor taxes and contributions paid by the company.
- A range of standard deductions and exemptions are also recorded.

³ The nonlinear distance to frontier for the total tax rate is equal to the distance to frontier for the total tax rate to the power of 0.8. 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.

Where do the region's economies stand today?

What is the administrative burden of complying with taxes in economies in OECD High Income—and how much do firms pay in taxes? The global rankings of these economies on the ease of paying taxes offer useful information for assessing the tax compliance burden for businesses (figure 8.1). The average ranking of the region provides a useful benchmark.

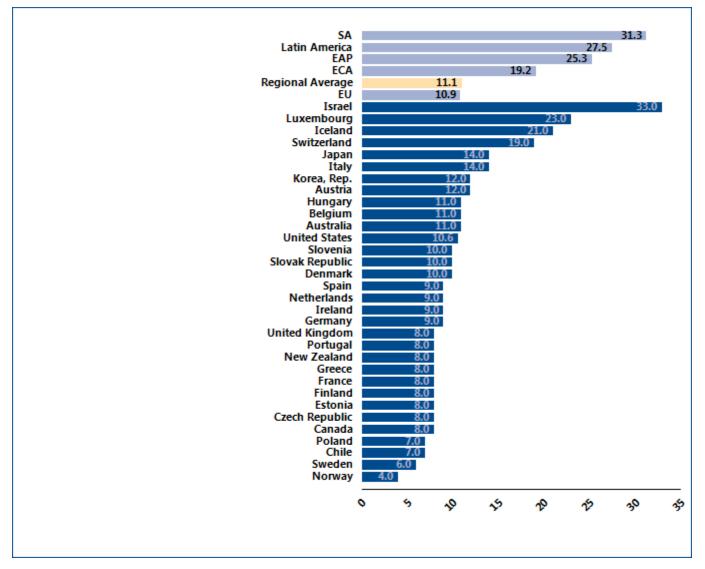
Figure 8.1 How economies in OECD High Income rank on the ease of paying taxes



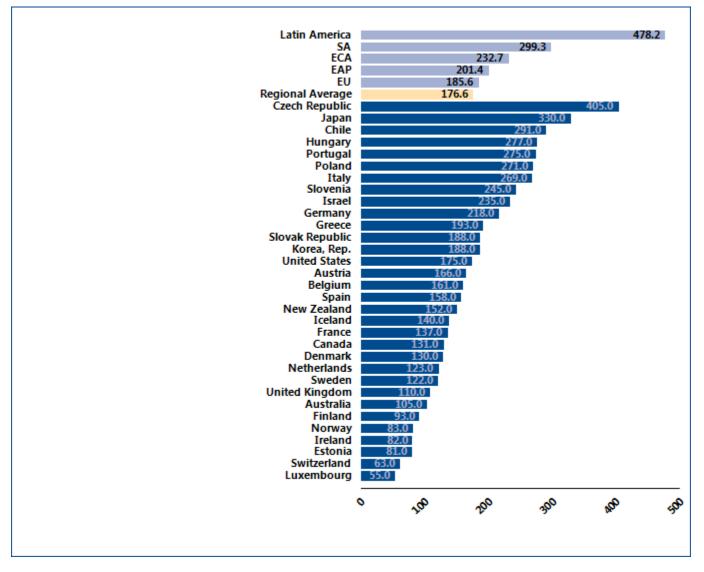
Note: All economies with a total tax rate below the threshold of 26.1% applied in DB2015, receive the same distance to frontier score for the total tax rate (a distance to frontier score of 100 for the total tax rate) for the purpose of calculating the ranking on the ease of paying taxes.

The indicators underlying the rankings may be more revealing. Data collected by *Doing Business* show what it takes to comply with tax regulations in each economy in the region—the number of payments per year and the time required to prepare, and file and pay taxes the 3 major taxes (corporate income tax, VAT or sales tax and labor taxes and mandatory contributions)—as well as the total tax rate (figure 8.2). Comparing these indicators across the region and with averages both for the region and for comparator regions can provide useful insights.

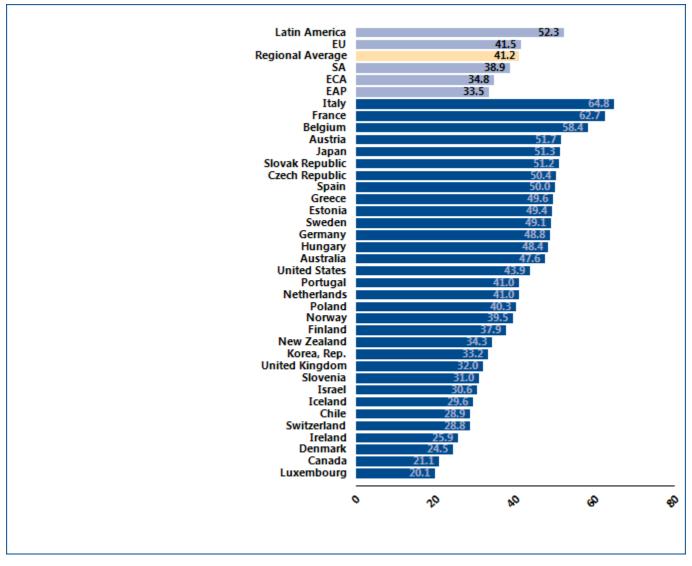
Figure 8.2 How easy is it to pay taxes in economies in OECD High Income—and what are the total tax rates? **Payments (number per year)**



Time (hours per year)



Total tax rate (% of profit)



What are the changes over time?

Economies around the world have made paying taxes faster and easier for businesses—such as by consolidating filings, reducing the frequency of payments or offering electronic filing and payment. Many have lowered tax rates. Changes have brought concrete results. Some economies simplifying compliance with tax obligations and reducing rates have seen tax revenue rise. What tax reforms has *Doing Business* recorded in OECD High Income (table 8.1)?

Table 8.1 How have economies in OECD High Income made paying taxes easier—or not? By *Doing Business* report year DB2011 to DB2016

DB year	Economy	Reform
DB2016	Chile	Chile made paying taxes more costly for companies by increasing the corporate income tax rate.
DB2016	Spain	Spain made paying taxes less costly for companies by reducing rates for corporate income, capital gains and environment taxes—and made it easier by introducing the online Cl@ve system for filing VAT returns. At the same time, Spain reduced the amount allowable for depreciation of fixed assets and raised the ceiling for social security contributions.
DB2016	Finland	Finland made paying taxes less costly for companies by reducing the corporate income tax rate—though it also increased the total rate for social security contributions paid by employers and reduced the allowed deductible amount for owners' expenses.
DB2016	France	France made paying taxes less costly for companies by introducing a credit against corporate income tax and reducing labor tax rates paid by employers.
DB2016	United Kingdom	The United Kingdom made paying taxes less costly for companies by reducing the corporate income tax rate and increasing the wage amount per employee that is exempted from social security contributions paid by employers. On the other hand, the United Kingdom increased municipal tax rates and environment taxes.
DB2016	Greece	Greece made paying taxes less costly for companies by reducing the rates for social security contributions paid by employers, making insurance premiums fully tax deductible

DB year	Economy	Reform
		and lowering property tax rates. At the same time, it defined entertainment expenses as nondeductible, reduced the depreciation rates for some types of fixed assets and increased the tax on interest income.
DB2016	Ireland	Ireland made paying taxes more costly and complicated for companies by increasing landfill levies and by requiring additional financial statements to be submitted with the income tax return.
DB2016	Israel	Israel made paying taxes more costly for companies by increasing the corporate income tax rate, the rate for social security contributions paid by employers for the upper wage bracket and municipal taxes.
DB2016	Korea, Rep.	The Republic of Korea made paying taxes more complicated and costly for companies by requiring separate filing and payment of the local income tax and by increasing the rates for unemployment insurance and national health insurance paid by employers.
DB2016	Netherlands	The Netherlands made paying taxes more costly for companies by increasing employer-paid labor contributions as well as road taxes, property taxes and polder board taxes.
DB2016	Norway	Norway made paying taxes less costly for companies by reducing the corporate income tax rate.
DB2016	Poland	Poland made paying taxes easier for companies by introducing an electronic system for filing and paying VAT and transport tax—though it also made paying taxes more costly by increasing transport tax rates and contributions to the National Disabled Fund paid by employers.
DB2016	Portugal	Portugal made paying taxes less costly for companies by reducing the corporate income tax rate and increasing the allowable amount of the loss carried forward. At the same time, Portugal slightly increased the vehicle tax.
DB2016	Slovak Republic	The Slovak Republic made paying taxes easier for companies by introducing an electronic filing and payment system for VAT—and made paying taxes less costly by reducing the corporate income tax rate and making medical health

DB year	Economy	Reform
		insurance tax deductible. At the same time, the Slovak Republic reduced the limit on losses carried forward.
DB2015	Spain	Spain made paying taxes less costly for companies by reducing the statutory corporate income tax rate.
DB2015	United Kingdom	The United Kingdom made paying taxes less costly for companies by reducing the corporate income tax rate. On the other hand, it increased the landfill tax.
DB2015	Hungary	Hungary made paying taxes easier and less costly for companies by abolishing the special tax that had been temporarily introduced in 2010 and by reducing the vehicle tax rate.
DB2015	Israel	Israel made paying taxes more costly for companies by increasing the profit tax rate.
DB2015	Portugal	Portugal made paying taxes less costly for companies by reducing the corporate income tax rate and introducing a reduced corporate tax rate for a portion of the taxable profits of qualifying small and medium-size enterprises.
DB2014	Greece	Greece made paying taxes more costly for companies by increasing the corporate income tax rate—though it also reduced the employers' contribution rate to the social security fund.
DB2014	Iceland	Iceland made paying taxes easier for companies by reducing employers' social security contribution rate and abolishing the weight distance tax—though it also introduced a new rehabilitation fund contribution.
DB2014	Slovak Republic	The Slovak Republic made paying taxes more costly for companies by increasing the corporate income tax rate and by adjusting land appraisal values.
DB2014	Sweden	Sweden made paying taxes less costly for companies by reducing the corporate income tax rate.
DB2013	Czech Republic	The Czech Republic made paying taxes faster for companies by promoting the use of electronic facilities.

DB year	Economy	Reform		
DB2013	Germany	Germany made paying taxes more convenient for companies by canceling ELENA procedures and implementing electronic filing and payment system for most taxes.		
DB2013	Hungary	Hungary made paying taxes easier for companies by abolishing the community tax. At the same time, Hungary increased health insurance contributions paid by the employer.		
DB2013	Iceland	Iceland increased the corporate income tax rate.		
DB2013	Japan	Japan made paying taxes less costly for companies by reducing the corporate income tax rate—though it also introduced a restoration surtax for a 3-year period.		
DB2013	Korea, Rep.	Korea made paying taxes less costly for companies by reducing the profit tax rate.		
DB2013	Poland	Poland made paying taxes easier for companies by promoting the use of electronic filing and payment systems—though it also made paying taxes more costly by increasing social security contributions.		
DB2013	Slovak Republic	The Slovak Republic made paying taxes easier for companies by implementing electronic filing and payment of social security and health insurance contributions.		
DB2013	Slovenia	Slovenia made paying taxes easier and less costly for companies by implementing electronic filing and payment of social security contributions and by reducing the corporate income tax rate.		
DB2013	United Kingdom	The United Kingdom made paying taxes less costly for companies by reducing the corporate income tax rate.		
DB2012	New Zealand	New Zealand reduced its corporate income tax rate and fringe benefit tax rate.		
DB2012	Iceland	Iceland made paying taxes easier and less costly for firms by abolishing a tax.		
DB2012	Korea, Rep.	Korea eased the administrative burden of paying taxes for firms by merging several taxes, allowing 4 labor taxes and contributions to be paid jointly and continuing to increase the		

DB year	Economy	Reform	
		use of the online tax payment system.	
DB2012	Hungary	Hungary made paying taxes costlier for firms by introducing a sector-specific surtax	
DB2012	Greece	Greece reduced its corporate income tax rate.	
DB2012	Czech Republic	The Czech Republic revised its tax legislation to simplify provisions relating to administrative procedures and relationships between tax authorities and taxpayers.	
DB2012	Finland	Finland simplified reporting and payment for the value added tax and labor tax.	
DB2012	Estonia	In Estonia a municipal sales tax introduced in Tallinn made paying taxes costlier for firms, though a later parliamentary measure abolished local sales taxes effective January 1, 2012.	
DB2012	Canada	Canada made paying taxes easier and less costly for companies by reducing profit tax rates, eliminating the Ontario capital tax and harmonizing sales taxes.	
DB2011	Canada	Canada harmonized the Ontario and federal tax returns and reduced the corporate and employee tax rates.	
DB2011	Czech Republic	The Czech Republic simplified its labor tax processes and reduced employer contribution rates for social security.	
DB2011	Estonia	Estonia increased the unemployment insurance contribution rate.	
DB2011	Hungary	Hungary simplified taxes and tax bases.	
DB2011	Iceland	Iceland increased the corporate income tax rate from 15% to 18% and raised social security and pension contribution rates.	
DB2011	Netherlands	The Netherlands reduced the frequency of filing and paying value added taxes from monthly to quarterly and allowed small entities to use their annual accounts as the basis for computing their corporate income tax.	
DB2011	Portugal	Portugal introduced a new social security code and lowered corporate tax rates.	

DB2011 Slovenia Slovenia abolished its payroll tax and reduced its corporincome tax rate. In the United States the introduction of a new tax on pairs In the United States the introduction of a new tax on pairs	ayroll	
DB2011 United States increased taxes on companies operating within the New City metropolitan commuter transportation district.		
DB2011 Sweden Sweden reduced profit and payroll tax rates		
DB2010 SpainSpain made paying taxes easier and less costly for com by improving efficiency in the electronic filing and payr system and reducing the corporate income tax rate.		
DB2010 PolandPoland made paying taxes easier and less costly for companies by simplifying its value added tax law and reducing employers' social security contribution rates.		
DB2010 Korea, Rep.Korea accelerated its corporate income tax reduction program, shortening it from 5 years to 3.		
DB2010 IsraelIsrael made paying taxes less costly for companies by reducing the corporate income tax rate.		
DB2010 Iceland Iceland made paying taxes less costly for companies by reducing the corporate income tax rate.		
DB2010 FinlandFinland made paying taxes easier and less costly for companies by extending electronic filing and reducing employers' social security contribution rates.		
DB2010 <i>Czech Republic</i> The Czech Republic made paying taxes easier for comp by making electronic filing mandatory for all taxes and introducing a single tax institution and unified filing.	anies	
DB2010 AustraliaAustralia made paying taxes easier for companies by abolishing the stamp duty on contracts.		
DB2010 Relation	Belgium made paying taxes easier for companies by making electronic filing mandatory for medium-size businesses.	

Note: For information on reforms in earlier years (back to DB2006), see the Doing Business reports for these years, available at http://www.doingbusiness.org.

In today's globalized world, making trade between economies easier is increasingly important for business. Excessive document requirements, burdensome customs procedures, inefficient port operations and inadequate infrastructure all lead to extra costs and delays for exporters and importers, stifling trade potential.

What do the indicators cover?

Doing Business records the time and cost associated with the logistical process of exporting and importing goods. Under the new methodology introduced this year, 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. The ranking of economies on the ease of trading across borders is determined by sorting their distance to frontier scores for trading across borders. These scores are the simple average of the distance to frontier scores for the time and cost for documentary compliance and border compliance to export and import.

To make the data comparable across economies, a few assumptions are made about the traded goods and the transactions:

Time

Time is measured in hours, and 1 day is 24 hours (for example, 22 days are recorded as 22 × 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.

WHAT THE TRADING ACROSS BORDERS

INDICATORS MEASURE FOR IMPORT & EXPORT

Documentary compliance – cost (US\$) & time (hours)

Obtain, prepare and submit documents:

-During transport, clearance, inspections and port or border handling in origin economy

-Required by origin, transit and destination economies

Covers all documents by law and in practice

Border compliance – cost (US\$) & time (hours)

Customs clearance and inspections

Inspections by other agencies

Port or border handling

Obtaining, preparing and submitting documents during clearance, inspections and port or border handling

Domestic transport*

Loading and unloading of shipment

Transport between warehouse and terminal/port

Transport between terminal/port and border

Obtaining, preparing and submitting documents during domestic transport

Traffic delays and road police checks while shipment is en route

* 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 score for trading across borders or the ranking on the ease of trading across borders.

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.

Assumptions of the case study

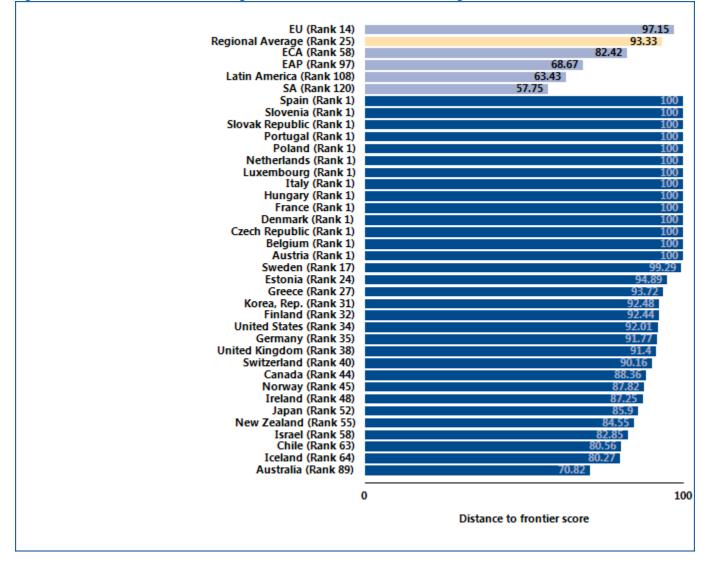
- For each of the 189 economies covered by *Doing Business*, it is assumed that a shipment travels from a warehouse in the largest business city of the exporting economy to a warehouse in the largest business city of the importing economy. For 11 economies the data are also collected, under the same case study assumptions, for the second largest business city.
- 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, live animals and pharmaceuticals are excluded from the list of possible export products, however, and the second largest product category is considered as needed.
- 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.
- 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.

- Shipping cost based on weight is assumed to be greater than shipping cost based on volume.
- 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 firm is responsible for hiring and paying 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 for exports. The importing firm is responsible for the above costs for imports.
- 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, airport 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, airport 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 and any other government authorities.

Where do the region's economies stand today?

How easy it is for businesses in economies in OECD High Income to export and import goods? The global rankings of these economies on the ease of trading across borders suggest an answer (figure 9.1). The average ranking of the region and comparator regions provide a useful benchmark.

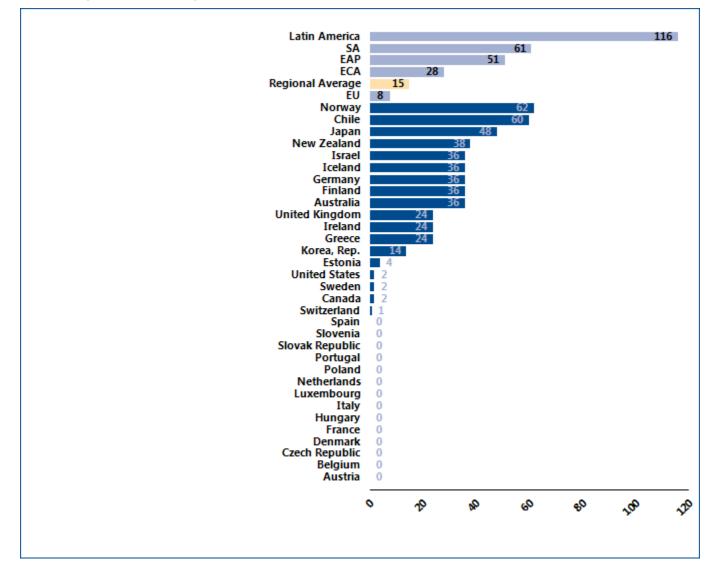
Figure 9.1 How economies in OECD High Income rank on the ease of trading across borders



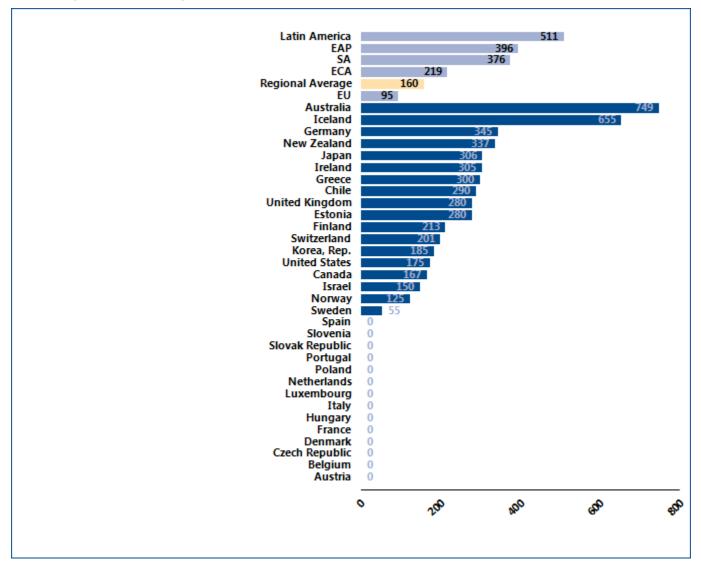
The indicators reported here are for trading a shipment of goods by the most widely used mode of transport (whether sea, land, air or some combination of these). The information on the time and cost to complete export and import is collected from local freight forwarders, customs brokers and traders. Comparing these indicators across the region and with averages both for the region and for comparator regions can provide useful insights.

Figure 9.2 What it takes to trade across borders in economies in OECD High Income

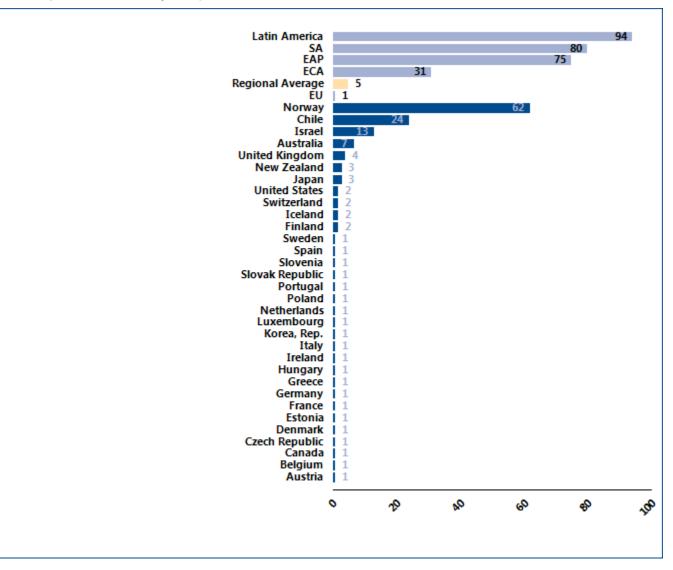
Time to export: Border compliance (hours)



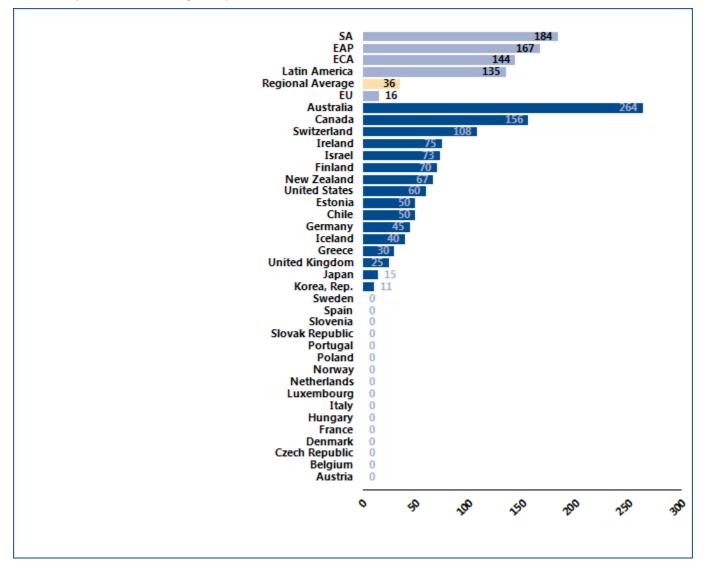
Cost to export: Border compliance (USD)



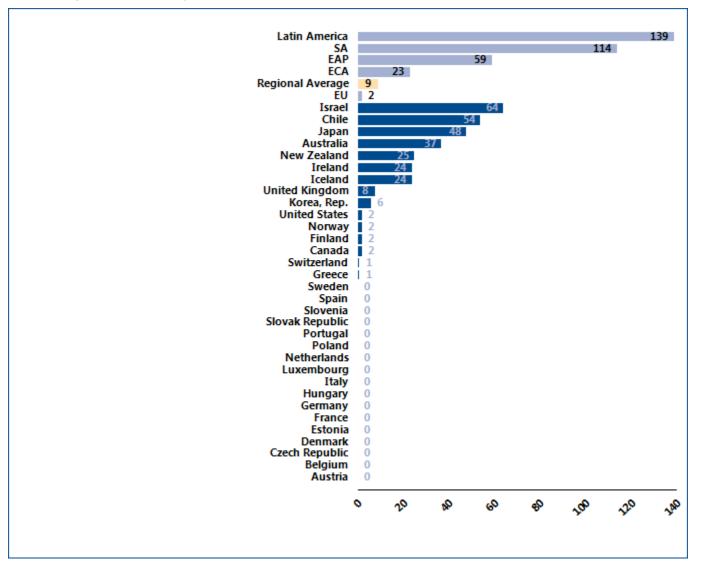
Time to export: Documentary compliance (hours)



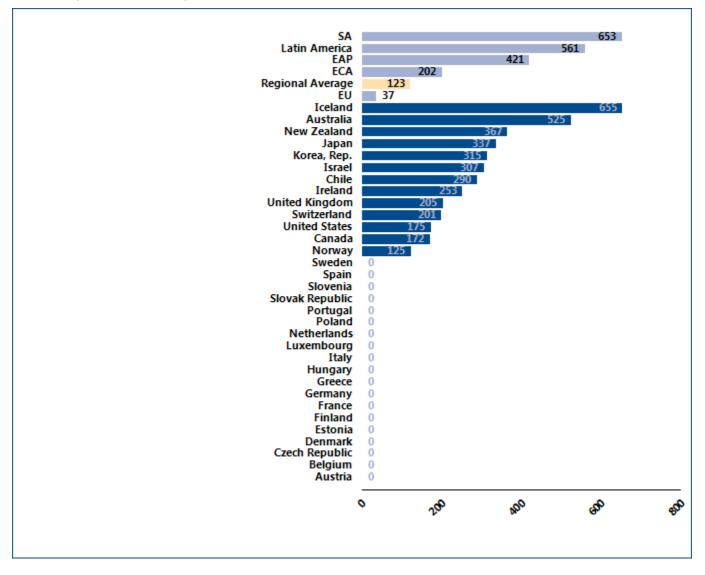
Cost to export: Documentary compliance (USD)



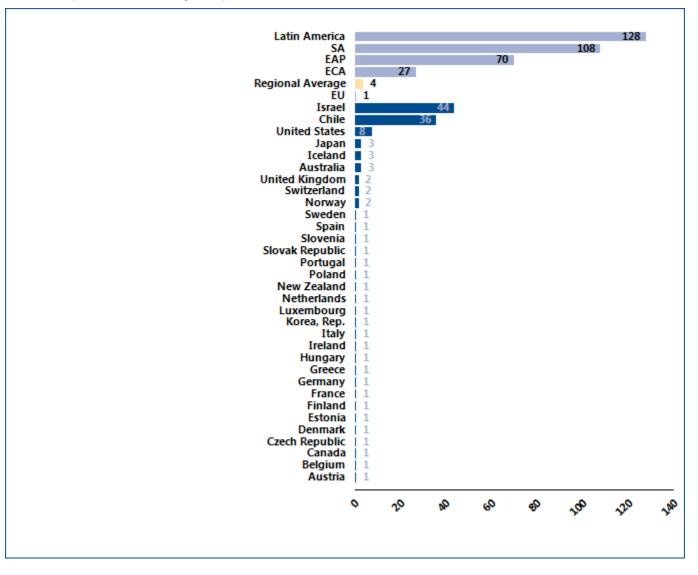
Time to import: Border compliance (hours)



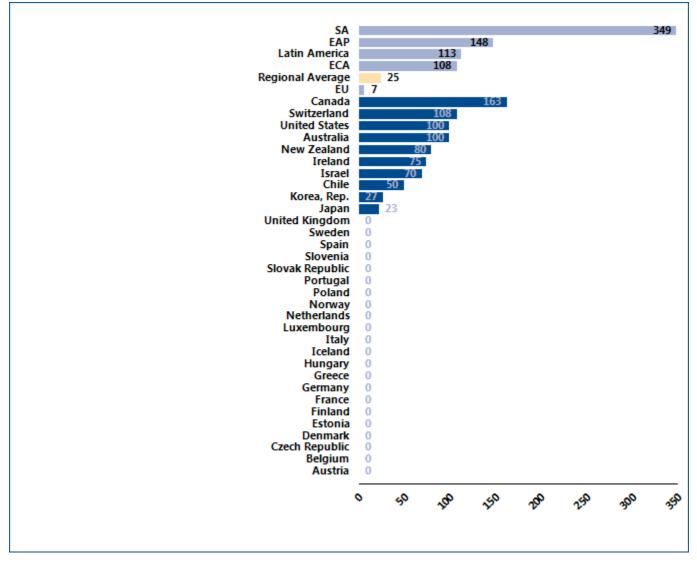
Cost to import: Border compliance (USD)



Time to import: Documentary compliance (hours)



Cost to import: Documentary compliance (USD)



What are the changes over time?

In economies around the world, trading across borders as measured by *Doing Business* has become faster and easier over the years. Governments have introduced tools to facilitate trade—including single windows, riskbased inspections and electronic data interchange systems. These changes help improve their trading environment and boost firms' international competitiveness. What trade reforms has *Doing Business* recorded in OECD High Income (table 9.1)?

Table 9.1 How have economies in OECD High Income made trading across borders easier—or not? By *Doing Business* report year DB2011 to DB2016

DB year	Economy	Reform	
DB2015	Poland	Poland made trading across borders easier by implementing a new terminal operating system at the port of Gdansk.	
DB2014	Greece	Greece made trading across borders easier by implementing a system allowing electronic submission of customs declarations for exports.	
DB2013	Czech Republic	The Czech Republic reduced the time to export and import by allowing electronic submission of customs declarations and other documents.	
DB2013	Hungary	Hungary reduced the time to export and import by allowing electronic submission of customs declarations and other documents.	
DB2013	Netherlands	The Netherlands made importing easier by introducing a new web-based system for cargo release at the port terminals in Rotterdam.	
DB2013	Portugal	Portugal made trading across borders easier by implementing an electronic single window for port procedures.	
DB2013	Spain	Spain reduced the time to import by further expanding the use of electronic submission of customs declarations and improving the sharing of information among customs and other agencies.	
DB2012	Israel	Israel made trading across borders easier by changing the method used to calculate port fees.	

DB year	Economy	Reform	
DB2012	Slovenia	Slovenia made trading across borders faster by introducing online submission of customs declaration forms.	
DB2012	Poland	Poland made trading across borders faster by implementing electronic preparation and submission of customs documents.	
DB2012	Belgium	Belgium made trading across borders faster by improving its risk-based profiling system for imports.	
DB2012	Chile	Chile made trading across borders faster by implementing an online electronic data interchange system for customs operations.	
DB2011	Israel	Israel is expanding its electronic data interchange system and developing a single-window framework, allowing easier assembly of documents required by different authorities and reducing the time to trade.	
DB2011	Spain	Spain streamlined the documentation for imports by including tax-related information on its single administrative document.	
DB2010	Slovak Republic	The Slovak Republic reduced the time for trading across borders by introducing more electronic systems for customs administration.	
DB2010	Portugal	Portugal reduced the time required for customs clearance through staff training and improvements in customs procedures.	

Note: For information on reforms in earlier years (back to DB2005), see the *Doing Business* reports for these years, available at http://www.doingbusiness.org.

Effective commercial dispute resolution has many benefits. Courts are essential for entrepreneurs because they interpret the rules of the market and protect economic rights. Efficient and transparent courts encourage new business relationships because businesses know they can rely on the courts if a new customer fails to pay. Speedy trials are essential for small enterprises, which may lack the resources to stay in business while awaiting the outcome of a long court dispute.

What do the indicators cover?

Doing Business measures the time and cost for resolving a standardized commercial dispute through a local first-instance court. In addition, this year it introduces a new measure, 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. This new index replaces the indicator on procedures, which was eliminated this year. The ranking of economies on the ease of enforcing contracts is determined by sorting their distance to frontier scores. These scores are the simple average of the distance to frontier scores for each of the component indicators

The dispute in the case study involves the breach of a sales contract between 2 domestic businesses. The case study assumes that the court hears an expert on the quality of the goods in dispute. This distinguishes the case from simple debt enforcement. To make the data comparable across economies, *Doing Business* uses several assumptions about the case:

- 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.
- The buyer orders custom-made goods, then fails to pay.

WHAT THE ENFORCING CONTRACTS

INDICATORS MEASURE

Time required to enforce a contract through the courts (calendar days)

Time to file and serve the case

Time for trial and to obtain the judgment

Time to enforce the judgment

Cost required to enforce a contract through the courts (% of claim)

Attorney fees

Court fees

Enforcement fees

Quality of judicial processes index (0-18)

Court structure and proceedings (0-5)

Case management (0-6)

Court automation (0-4)

Alternative dispute resolution (0-3)

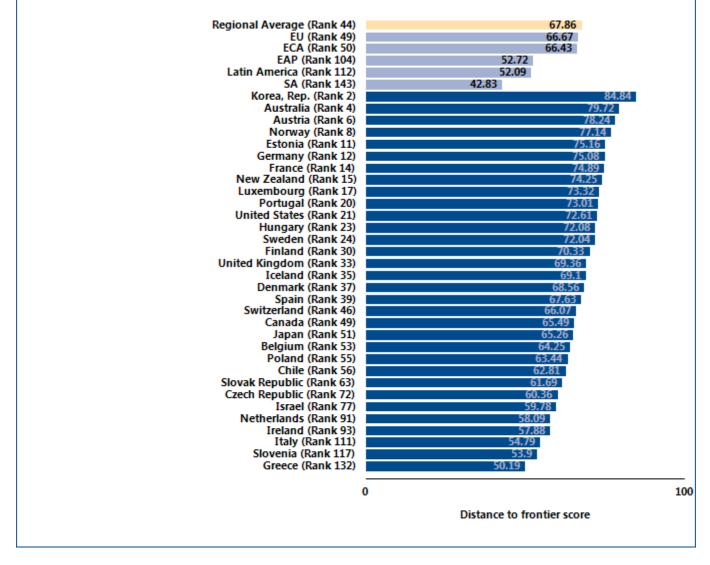
- The value of the dispute is 200% of the income per capita or the equivalent in local currency of USD 5,000, whichever is greater.
- The seller sues the buyer before the court with jurisdiction over commercial cases worth 200% of income per capita or \$5,000.
- The seller requests a pretrial attachment to secure the claim.
- The dispute on the quality of the goods requires an expert opinion.
- The judge decides in favor of the seller; there is no appeal.
- The seller enforces the judgment through a public sale of the buyer's movable assets.

Where do the region's economies stand today?

How efficient is the process of resolving a commercial dispute through the courts in economies in OECD High Income? The global rankings of these economies on the

ease of enforcing contracts suggest an answer (figure 10.1). The average ranking of the region and comparator regions provide a useful benchmark.

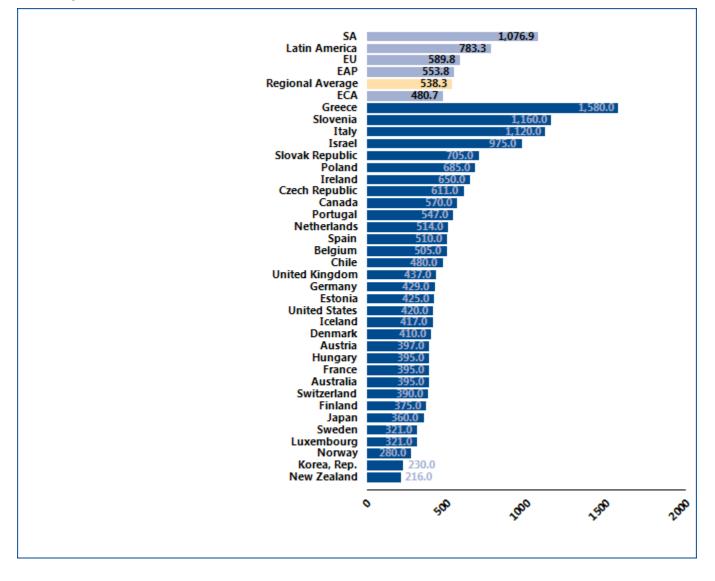




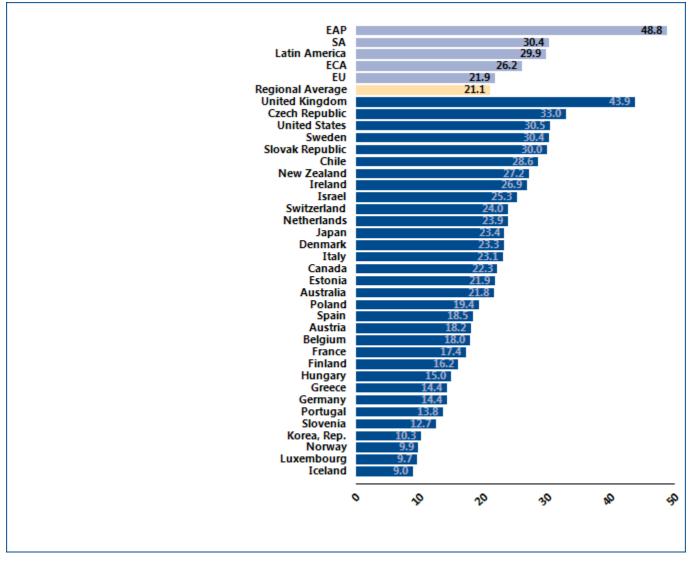
The indicators underlying the rankings may also be revealing. Data collected by *Doing Business* show what it takes to enforce a contract through the courts in each economy in the region: the time, the cost and quality of judicial processes index (figure 10.2). Comparing these indicators across the region and with averages both for the region and for comparator regions can provide useful insights.

Figure 10.2 What it takes to enforce a contract through the courts in economies in OECD High Income

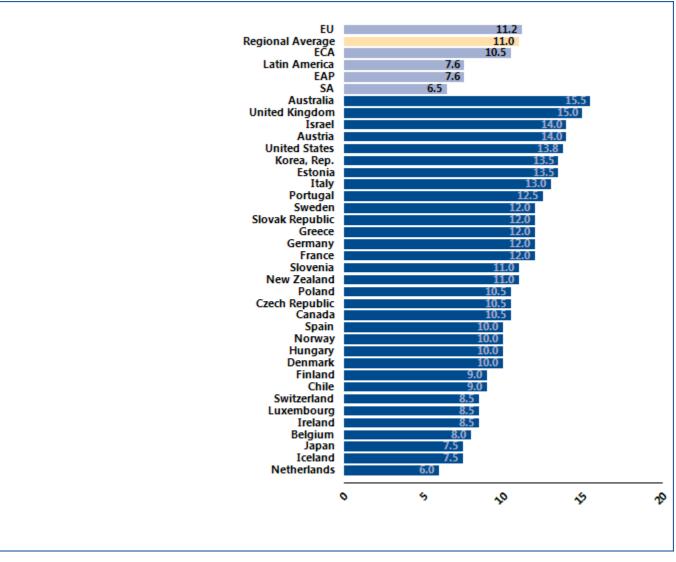
Time (days)



Cost (% of claim)



Quality of Judicial Processes Index (0-18)



Source: Doing Business database.

Note: Higher values indicate more efficient judicial processes.

What are the changes over time?

Economies in all regions have improved contract enforcement in recent years. A judiciary can be improved in different ways. Higher-income economies tend to look for ways to enhance efficiency by introducing new technology. Lower-income economies often work on reducing backlogs by introducing periodic reviews to clear inactive cases from the docket and by making procedures faster. What reforms making it easier (or more difficult) to enforce contracts has *Doing Business* recorded in OECD High Income (table 10.1)?

Table 10.1 How have economies in OECD High Income made enforcing contracts easier—or not? By *Doing Business* report year DB2011 to DB2016

DB year	Economy	Reform	
DB2016	United Kingdom	The United Kingdom made enforcing contracts more costly by increasing the court fees for filing a claim.	
DB2016	Italy	Italy made enforcing contracts easier by introducing a mandatory electronic filing system for court users, simplifying the rules for electronic service of process and automating the enforcement process.	
DB2015	Czech Republic	The Czech Republic made enforcing contracts easier by amending its civil procedure code and modifying the monetary jurisdictions of its courts.	
DB2015	Greece	Greece made enforcing contracts easier by introducing an electronic filing system for court users.	
DB2015	Ireland	Ireland made enforcing contracts easier by modifying the monetary jurisdictions of its courts.	
DB2015	Portugal	Portugal made enforcing contracts easier by adopting a new code of civil procedure designed to reduce case backlogs, streamline court procedures, enhance the role of judges and speed up the resolution of standard civil and commercial disputes.	
DB2014	Czech Republic	The Czech Republic made enforcing contracts easier by simplifying and speeding up the proceedings for the execution and enforcement of judgments.	
DB2014	Estonia	Estonia made enforcing contracts easier by lowering court fees.	
DB2014	Italy	Italy made enforcing contracts easier by regulating attorneys' fees and streamlining some court proceedings.	

DB year	Economy	Reform	
DB2014	New Zealand	New Zealand made enforcing contracts easier by improving its case management system to ensure a speedier and less costly adjudication of cases.	
DB2013	Poland	Poland made enforcing contracts easier by amending the civil procedure code and appointing more judges to commercial courts.	
DB2013	Slovak Republic	The Slovak Republic made enforcing contracts easier by adopting several amendments to the code of civil procedure intended to simplify and speed up proceedings as well as to limit obstructive tactics by the parties to a case.	
DB2012	Korea, Rep.	Korea made filing a commercial case easier by introducing an electronic case filing system.	
DB2011	New Zealand	New Zealand enacted new district court rules that make the process for enforcing contracts user friendly.	
DB2011	United Kingdom	The United Kingdom improved the process for enforcing contracts by modernizing civil procedures in the commercial court.	
DB2011	Canada	Canada increased the efficiency of the courts by expanding electronic document submission and streamlining procedures.	
DB2010	Sweden	Sweden made contract enforcement faster through new legislation introducing more stringent timelines for civil cases. It also improved the process by reinforcing the role of the judge in actively managing cases, amending evidence rules, requiring permission to appeal courts' decisions and reviewing statutory fees for enforcing judgments.	
DB2010	Norway	Norway speeded up contract enforcement through the introduction and monitoring of tighter deadlines in court procedures.	
DB2010	Portugal	Portugal reduced the time and improved the procedures for contract enforcement by allowing electronic filing for the initiation of a suit and by reducing the need for intervention by the judge in the enforcement of a judgment.	

Note: For information on reforms in earlier years (back to DB2005), see the *Doing Business* reports for these years, available at http://www.doingbusiness.org.

A robust bankruptcy system functions as a filter, ensuring the survival of economically efficient companies and reallocating the resources of inefficient ones. Fast and cheap insolvency proceedings result in the speedy return of businesses to normal operation and increase returns to creditors. By clarifying the expectations of creditors and debtors about the outcome of insolvency proceedings, well-functioning insolvency systems can facilitate access to finance, save more viable businesses and sustainably grow the economy.

What do the indicators cover?

Doing Business studies the time, cost and outcome of insolvency proceedings involving domestic legal entities. These variables are used to calculate the recovery rate, which is recorded as cents on the dollar recovered by secured creditors through reorganization, liquidation or debt enforcement (foreclosure or receivership) proceedings. To determine the present value of the amount recovered by creditors, *Doing Business* uses the lending rates from the International Monetary Fund, supplemented with data from central banks and the Economist Intelligence Unit.

In addition, *Doing Business* evaluates the adequacy and integrity of the existing legal framework applicable to liquidation and reorganization proceedings through the strength of insolvency framework index. The index tests whether economies adopted internationally accepted good practices in four areas: commencement of proceedings, management of debtor's assets, reorganization proceedings and creditor participation.

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. The Resolving Insolvency indicator does not measure insolvency proceedings of individuals and financial institutions. The data are derived from questionnaire responses by local insolvency practitioners and verified through a study of laws and regulations as well as public information on bankruptcy systems.

WHAT THE RESOLVING INSOLVENCY INDICATORS 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 business continues operating as a going concern or business assets are sold piecemeal

Recovery rate for creditors

Measures the cents on the dollar recovered by secured creditors

Outcome for the business (survival or not) determines the maximum value that can be recovered

Official costs of the insolvency proceedings are deducted

Depreciation of furniture is taken into account

Present value of debt recovered

Strength of insolvency framework index (0-16)

Sum of the scores of four component indices:

Commencement of proceedings index (0-3)

Management of debtor's assets index (0-6)

Reorganization proceedings index (0-3)

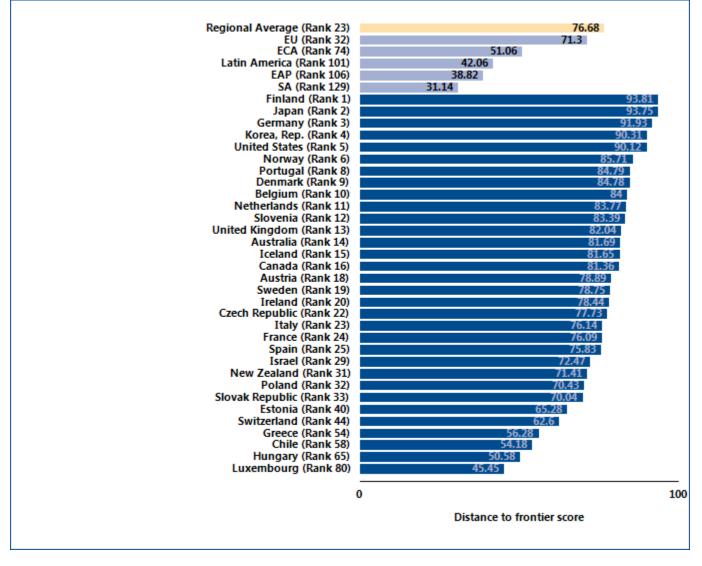
Creditor participation index (0-4)

Where do the region's economies stand today?

How efficient are insolvency proceedings in economies in OECD High Income? The global rankings of these economies on the ease of resolving insolvency suggest an answer (figure 11.1). The average ranking of the

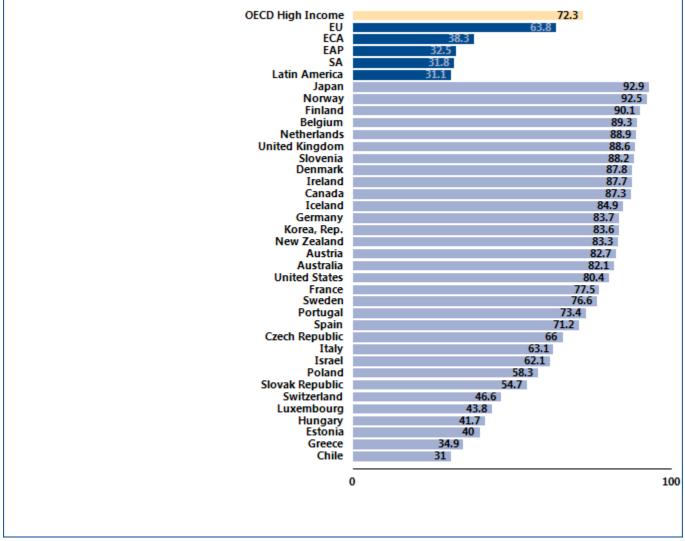
region and comparator regions provide a useful benchmark for assessing the efficiency of insolvency proceedings. Speed, low costs and continuation of viable businesses characterize the top-performing economies.

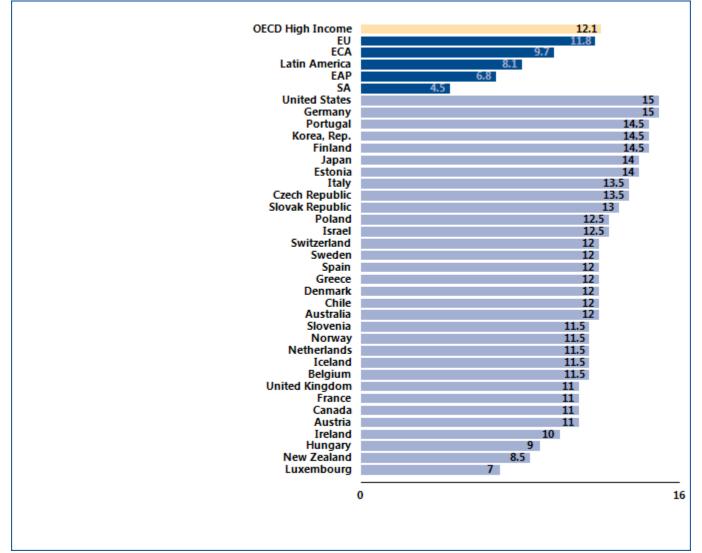
Figure 11.1 How economies in OECD High Income rank on the ease of resolving insolvency



The indicators underlying the rankings may be more revealing. Data collected by *Doing Business* show the average recovery rate and the average strength of insolvency framework index (figure 11.2). Comparing these indicators across the region and with averages both for the region and for comparator regions can provide useful insights.

Figure 11.2 How efficient is the insolvency process in economies in OECD High Income Recovery Rate (0–100)





Total Strength of Insolvency Framework index (0-16)

Source: Doing Business database.

* Indicates a "no practice" mark. See the data notes for details. If an economy has no laws or regulations covering a specific area—for example, insolvency—it receives a "no practice" mark. Similarly, an economy receives a "no practice" or "not possible" mark if regulation exists but is never used in practice or if a competing regulation prohibits such practice. Either way, a "no practice" mark puts the economy at the bottom of the ranking on the relevant indicator.

Source: Doing Business database.

Note: Higher values indicate insolvency legislation that is better designed for rehabilitating viable firms and liquidating nonviable ones.

What are the changes over time?

A well-balanced bankruptcy system distinguishes companies that are financially distressed but economically viable from inefficient companies that should be liquidated. But in some insolvency systems even viable businesses are liquidated. This is starting to change. Many recent reforms of bankruptcy laws have been aimed at helping more of the viable businesses survive. What insolvency reforms has *Doing Business* recorded in OECD High Income (table 11.1)?

Table 11.1 How have economies in OECD High Income made resolving insolvency easier—or not? By *Doing Business* report year DB2011 to DB2016

DB year	Economy	Reform	
DB2016	Chile	Chile made resolving insolvency easier by clarifying and simplifying provisions on liquidation and reorganization, introducing provisions to facilitate the continuation of the debtor's business during insolvency, establishing a public office responsible for the general administration of insolvency proceedings and creating specialized insolvency courts.	
DB2015	Belgium	Belgium made resolving insolvency more difficult by establishing additional requirements for commencing reorganization proceedings, including the submission of documents verified by external parties.	
DB2015	Switzerland	Switzerland made resolving insolvency easier by introducing a moratorium period while the debtor is preparing a composition (reorganization) agreement, allowing creditors greater participation in the composition (reorganization) procedure and clarifying claw-back provisions applicable to voidable transactions.	
DB2015	Spain	Spain made resolving insolvency easier by introducing new rules for out-of-court restructuring, introducing provisions applicable to prepackaged reorganizations and making insolvency proceedings more public.	
DB2015	Slovenia	Slovenia made resolving insolvency easier by introducing a simplified reorganization procedure for small companies and a preventive restructuring procedure for medium-size and large ones, by allowing creditors greater participation in the management of the debtor and by establishing provisions for an increase in share capital through debt-equity swaps.	
DB2014	Israel	Israel made resolving insolvency easier through an amendment to its company law allowing the assumption or rejection of executory contracts, granting maximum priority to postcommencement credit, extending the maximum period of moratorium during restructuring	

DB year	Economy	Reform	
		proceedings and allowing the sale of secured assets when necessary to ensure a successful restructuring.	
DB2014	Italy	Italy made resolving insolvency easier through an amendment to its bankruptcy code that introduces a stay period for enforcement actions while the debtor is preparing a restructuring plan, makes it easier to convert from one type of restructuring proceeding to another, facilitates continued operation by the debtor during restructuring and imposes stricter requirements on auditors evaluating a restructuring plan.	
DB2013	Germany	Germany strengthened its insolvency process by adopting a new insolvency law that facilitates in-court restructurings of distressed companies and increases participation by creditors.	
DB2013	Greece	Greece enhanced its insolvency process by abolishing the conciliation procedure and introducing a new rehabilitation proceeding.	
DB2013	Poland	Poland strengthened its insolvency process by updating guidelines on the information and documents that need to be included in the bankruptcy petition and by granting secured creditors the right to take over claims encumbered with financial pledges in case of liquidation.	
DB2013	Portugal	Portugal made resolving insolvency easier by introducing a new insolvency law that expedites liquidation procedures and creates fast-track mechanisms both in and out of court.	
DB2013	Slovak Republic	The Slovak Republic improved its insolvency process by redefining the roles and powers of creditors and trustees, strengthening the rights of secured creditors and redefining rules for the conversion of restructuring into a bankruptcy proceeding.	
DB2013	Korea, Rep.	Korea expedited the insolvency process by implementing a fast track for company rehabilitation.	
DB2013	Slovenia	Slovenia strengthened its insolvency process by requiring that the debtor offer creditors payment of at least 50% of the claims within 4 years; giving greater power to the creditors' committee in a bankruptcy proceeding; prohibiting insolvency administrators from allowing relatives to render services associated with the bankruptcy proceeding; and establishing fines for members of management that violate certain obligations or prohibitions.	
DB2013	Spain	Spain strengthened its insolvency process by making workouts easier, offering more protections for refinancing	

DB year	Economy	Reform
		agreements, allowing conversion from reorganization into liquidation at any time, allowing reliefs of the stay under certain circumstances and permitting the judge to determine whether an asset of the insolvent company is necessary for its continued operation.
DB2012	Switzerland	Switzerland introduced a unified civil procedure code and made a number of changes to its federal bankruptcy law.
DB2012	Poland	Poland amended its bankruptcy and reorganization law to simplify court procedures and extend more rights to secured creditors.
DB2012	Slovenia	Slovenia simplified and streamlined the insolvency process and strengthened professional requirements for insolvency administrators.
DB2012	Israel	Israel amended its courts law to establish specialized courts for dealing with economic matters.
DB2012	Italy	Italy introduced debt restructuring and reorganization procedures as alternatives to bankruptcy proceedings and extended further rights to secured creditors during insolvency proceedings.
DB2012	France	France passed a law that enables debtors to implement a restructuring plan with financial creditors only, without affecting trade creditors.
DB2012	Denmark	Denmark introduced new rules on company reorganization, which led to the elimination of the suspension-of-payments regime.
DB2012	Australia	Australia clarified the priority of claims of unsecured creditors over all shareholders' claims and introduced further regulation of the profession of insolvency practitioners.
DB2012	Austria	Austria passed a new law that simplifies restructuring proceedings and gives preferential consideration to the interests of the debtors.
DB2011	Belgium	Belgium introduced a new law that will promote and facilitate the survival of viable businesses experiencing financial difficulties.
DB2011	Czech Republic	The Czech Republic made it easier to deal with insolvency by introducing further legal amendments to restrict setoffs in insolvency cases and suspending for some insolvent debtors the obligation to file for bankruptcy.
DB2011	Estonia	Amendments to Estonia's recent insolvency law increased the chances that viable businesses will survive insolvency by

DB year	Economy	Reform
		improving procedures and changing the qualification requirements for insolvency administrators.
DB2011	Hungary	Amendments to Hungary's bankruptcy law encourage insolvent companies to consider reaching agreements with creditors out of court so as to avoid bankruptcy.
DB2011	Japan	Japan made it easier to deal with insolvency by establishing a new entity, the Enterprise Turnaround Initiative Corporation, to support the revitalization of companies suffering from excessive debt but professionally managed.
DB2011	Korea, Rep.	Korea made it easier to deal with insolvency by introducing postfiling financing, granting superpriority to the repayment of loans given to companies undergoing reorganization.
DB2011	United Kingdom	Amendments to the United Kingdom's insolvency rules streamline bankruptcy procedures, favor the sale of the firm as a whole and improve the calculation of administrators' fees.
DB2011	Spain	Spain amended its regulations governing insolvency proceedings with the aim of reducing the cost and time. The new regulations also introduced out-of-court workouts.
DB2010	Poland	Poland enhanced its insolvency process through an amendment to its bankruptcy law introducing the option of a prebankruptcy reorganization procedure for financially distressed companies.
DB2010	Germany	Germany enhanced its insolvency process through the Act on the Implementation of Measures to Stabilize the Financial Market (Finanzmarktstabilisierungsgesetz), which removed the requirement for potentially viable companies to file for immediate insolvency in cases of overindebtedness.
DB2010	France	France enhanced its insolvency process by encouraging preinsolvency workouts and eliminating the requirement that a public auctioneer provide the estimation of the debtor's assets.
DB2010	Estonia	Estonia enhanced its insolvency process by establishing a new reorganization procedure to enable financially distressed companies to restructure their debt and apply other means to restore financial health and profitability.

Note: For information on reforms in earlier years (back to DB2005), see the *Doing Business* reports for these years, available at http://www.doingbusiness.org.

DISTANCE TO FRONTIER AND EASE OF DOING BUSINESS RANKING

Doing Business 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 36 indicators for 10 *Doing Business* topics (the labor market regulation indicators are excluded). For starting a business, for example, the former Yugoslav Republic of Macedonia and New Zealand have the smallest number of procedures required (1), and New Zealand the shortest time to fulfill them (0.5 days). Slovenia has the lowest cost (0.0), and Australia, Colombia and 103 other economies have no paid-in minimum capital requirement (table 14.1 in the *Doing Business 2016* report).

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 36 component indicators y (except for the total tax rate) is rescaled using the linear transformation (worst – y)/(worst – 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 taxes and mandatory contributions, and value added tax (VAT) or sales tax. For the different times to trade across borders, the frontier is defined as 1 hour even though in many economies the time is less than that.

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 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*⁴. Thus *Doing Business* uses the simplest method: weighting all topics equally and, within each topic, giving equal weight to each of the topic components⁵.

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 2015 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 this approach was adopted in Doing Business 2015 (line B is smaller than line A in figure 14.2 of the Doing Business 2016 report). 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 of the *Doing Business 2016* report).

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 2 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 13.1). This is done for the aggregate score, the scores for each topic and the scores for all the component indicators for each topic.

⁴ 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.

⁵ 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

Table 13.1	Weights used	l in calculating	the distance to
frontier sco	ores for econo	mies with 2 cit	ies covered

Economy	City	Weight (%)
Bangladesh	Dhaka	78
	Chittagong	22
Brazil	São Paulo	61
	Rio de Janeiro	39
China	Shanghai	55
	Beijing	45
India	Mumbai	47
	Delhi	53
Indonesia	Jakarta	78
	Surabaya	22
Japan	Tokyo	65
	Osaka	35
Mexico	Mexico City	83
	Monterrey	17
Nigeria	Lagos	77
	Kano	23
Pakistan	Karachi	65
	Lahore	35
Russian Federation	Moscow	70
	St. Petersburg	30
United States	New York	60
	Los Angeles	40

Source: United Nations, Department of Economic and Social Affairs, Population Division, World Urbanization Prospects, 2014 Revision. http://esa.un.org/unpd/wup/CD-ROM/Default.aspx.

Economies that improved the most across 3 or more *Doing Business* topics in 2014/15

Doing Business 2016 uses a simple method to calculate which economies improved the ease of doing business the most. First, it selects the economies that in 2014/15

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. Changes making it more difficult to do business are subtracted from the total number of those making it easier to do business. Twenty-four economies meet this criterion: Armenia; Azerbaijan; Benin; Costa Rica; Côte d'Ivoire; Cyprus; Hong Kong SAR, China; Indonesia; Jamaica; Kazakhstan; Kenya; Lithuania; Madagascar; Mauritania; Morocco; Romania; the Russian Federation; Rwanda; Senegal; Togo; Uganda; the United Arab Emirates; Uzbekistan; and Vietnam. 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, broadbased 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 189. The ranking of economies is determined by sorting the aggregate distance to frontier scores, rounded to 2 decimals.

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