What is changing in *Doing Business*?

- This year's report and *Doing Business 2016* are introducing changes in 8 of the 10 *Doing Business* indicator sets: dealing with construction permits, getting electricity, registering property, getting credit, protecting minority investors, paying taxes, enforcing contracts and resolving insolvency.
- The improvements have 2 main goals. The first is to expand the focus of indicator sets that primarily measure the efficiency of a transaction or service to also cover aspects of the quality of that service. The second is to expand the focus of indicator sets that already measure some aspects of the quality of regulation to include recent good practices in the areas covered.
- Starting this year the ease of doing business ranking is based on the distance to frontier score.
- For the 11 economies with a population of more than 100 million, a second city has been added to the sample this year.

Good practices in business regulation have evolved since the *Doing Business* indicators were first developed in 2003. Some changes have come, for example, as new technologies have transformed the ways governments interact with citizens and the business community. The new developments have created a need to expand and update the *Doing Business* methodology. While the *Doing Business* report has introduced changes in methodology of varying degrees every year, this year's report and *Doing Business 2016* are implementing more substantive improvements. Most were inspired by recommendations of the Independent Panel on *Doing Business* and by broader consultations that have taken place over the years with World Bank Group staff, country governments and the private sector.[1]

TABLE 3.1 Timeline of the changes in *Doing Business*

Changes in *Doing Business 2015*
Revision of the ranking calculation
Expansion of the city sample in large economies
Broadening of the scope of indicator sets
• Getting credit
• Protecting minority investors
• Resolving insolvency
Changes in *Doing Business 2016*
Broadening of the scope of indicator sets
• Registering property
• Dealing with construction permits
• Getting electricity
• Paying taxes
• Enforcing contracts

Note: No changes are planned for starting a business or trading across borders. Minor updates in methodology are introduced in this year's report for dealing with construction permits, paying taxes and enforcing contracts, as explained in the data notes.

AN OVERVIEW OF THE CHANGES

The improvements are in 3 areas: revision of the calculation of the ease of doing business ranking, expansion of the sample of cities covered in large economies and a broadening of the scope of indicator sets (table 3.1). Some of the changes imply a break in the data series and will compromise the comparability of data over time. For getting credit, for example, the changes in the strength of legal rights index are substantial enough to prevent comparability over time. But for all *Doing Business* topics, including getting credit, the data have been back-calculated 1 year to allow for at least 2 comparable years of data.[2] Moreover, since most of the changes in methodology involve adding new indicators rather than revising existing ones, data for more than 90% of the previously existing indicators remain comparable over time. The full data series are available on the *Doing Business* website.

Revising the ranking calculation

Doing Business continues to publish the ease of doing business ranking. But beginning in this year's report the ranking is based on the distance to frontier score rather than on the percentile rank. The distance to frontier score benchmarks economies with respect to a measure of regulatory best practice—showing the gap between each economy's performance and the best performance on each indicator. For indices, such as the strength of legal rights index (which ranges from 0 to 12), the frontier is set at the best theoretical score (in this case 12) even if no economy attains it. For most of the other indicators the frontier is set at the lowest number that occurs in practice—for example, 1 for the number of procedures to start a business. The exceptions are the recovery rate in insolvency, for which the frontier is set at the highest value, and the total tax rate, for which a threshold has been established.

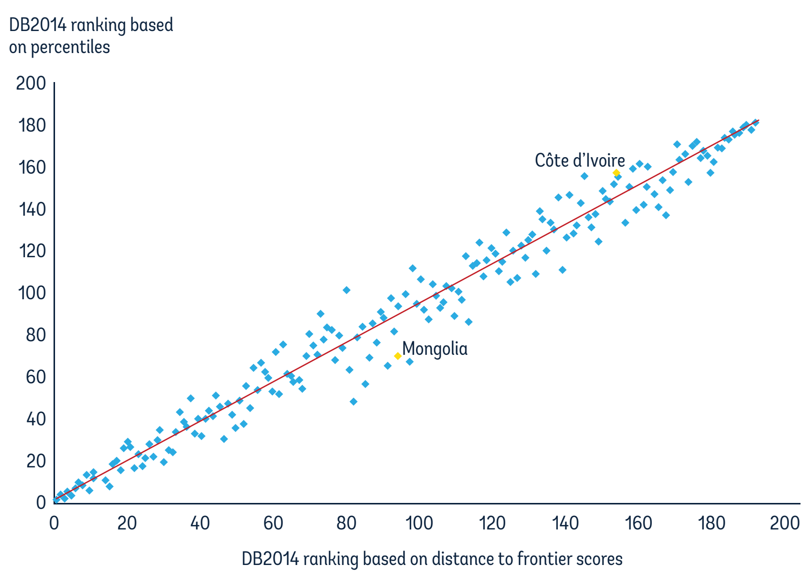
The ranking based on the distance to frontier score is highly correlated with that based on the percentile rank. But the distance to frontier score captures more information than the percentile rank because it shows not only how economies are ordered but also how far apart they are. Economies with greater variance across topics are more likely to have a less favorable position in the distance to frontier ranking than in the percentile ranking. Those with relatively better performance in topics with a compressed distribution, such as starting a business, also tend to place lower in the distance to frontier ranking.

Two country examples can better illustrate the practical implications of the change in the ranking calculation. In *Doing Business 2014* Côte d'Ivoire had rankings between 115 and 173 for 8 of the 10 topics, and rankings of 88 and 95 for the other 2. This resulted in a ranking of 167 on the overall ease of doing business. If the ranking had been computed using the distance to frontier score rather than the percentile rank, Côte d'Ivoire's ranking, based on the same data, would have been 153 (figure 3.1). This higher ranking would have been due mainly to the low variation in Côte d'Ivoire's performance across topics.

For Mongolia the opposite would have happened. In *Doing Business 2014* Mongolia's topic rankings ranged between 22 and 181. Mongolia ranked in the top 40 for 4 of the topics, and in the bottom 60 for 3. Its overall ranking based on the percentile rank method was 76. If the ranking had been computed using the distance to frontier method instead, Mongolia's ranking would have been 94. This lower ranking would have been attributable to the high variation in Mongolia's performance across topics.

How do the 2 countries fare in this year's ease of doing business ranking? Côte d'Ivoire stands at 147 in the ranking, 6 places higher than in last year's ranking when based on the new methodology—and Mongolia stands at 72, 22 places higher. The changes in ranking are due to other changes in methodology, changes in the data for these 2 countries and changes in the data for other economies. (For more details, see the chapter on the distance to frontier and ease of doing business ranking.)

FIGURE 3.1 How much difference is there between the 2 calculations of the ease of doing business ranking?



Note: The 45-degree line shows where the rankings based on percentiles and the rankings based on distance to frontier scores are equal. The correlation between the 2 rankings is 0.99.

Source: Doing Business database.

Expanding the sample of cities covered

Since its inception *Doing Business* has focused on the largest business city of each economy, taking it as a proxy for the entire national territory. Depending on the indicator and the size of the economy, this focus can be a limitation in extrapolating results to the economy level. As the subnational *Doing Business* reports have shown, the indicators measuring the procedures, time and cost to complete a transaction (such as the dealing with construction permits indicators) tend to show more variation across cities within an economy than do indicators capturing features of the law applicable nationwide (such as the protecting minority investors or resolving insolvency indicators). Moreover, this limitation is likely to be more important in larger economies—where the largest business city is likely to represent a smaller share of the overall economy—and in those with greater regional diversity in business practices.

To address this issue, this year *Doing Business* has expanded its sample of cities in large economies, defined as those with a population of more than 100 million. Today there are 11 such economies in the world: Bangladesh, Brazil, China, India, Indonesia, Japan, Mexico, Nigeria, Pakistan, the Russian Federation and the United States. For each of these economies the sample now includes the second largest business city. Population size was used as the criterion for selecting these economies for 2 main reasons: First, economies with a large population, because of their size and diversity, are more likely to have differences in performance on indicators. Second, the larger the population in an economy, the larger the number of people who can benefit from improvements in business regulation.

Within each economy the second city was also selected on the basis of population size. Another criterion was that the second city must be in a different metropolitan area than the largest business city.[3] Other criteria were also considered, such as contribution to total GDP or level of city dynamism, but these were not used in the end because of the lack of comparable data across the economies.

What do the data for the new cities in the sample show about the differences within economies? Overall, the differences are small. In 7 of the 11 economies the difference in the distance to frontier score between the 2 cities is less than 1 point (figure 3.2).

Broadening the scope of indicator sets

Eight of the 10 sets of *Doing Business* indicators are being improved over a 2-year period. The improvements are aimed at addressing 2 main concerns. First, in indicator sets that primarily measure the efficiency of a transaction or service provided by a government agency (such as registering property), the focus is being expanded to also cover aspects of the quality of that service. And second, in indicator sets that already measure some aspects of the quality of regulation (such as protecting minority investors), the focus is being expanded to include additional good practices in the areas covered.

INTRODUCING NEW MEASURES OF QUALITY

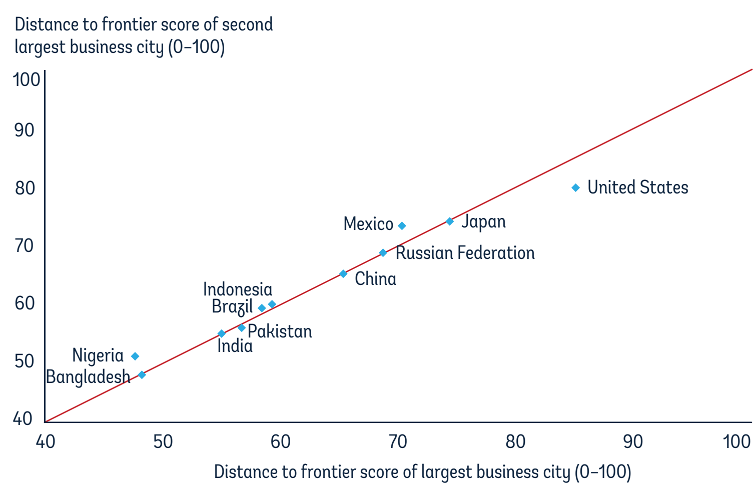
Efficiency in regulatory transactions is important. Many research papers have highlighted the positive effect of improvements in areas measured by *Doing Business* on such economic outcomes as firm or job creation.[4] But increasing efficiency may have little impact if the service provided is of poor quality. For example, the ability to complete property transfers quickly and inexpensively is important, but if the land records are unreliable or other features of the property rights regime are flawed, the property title will have little value.

There is a well-established literature linking regulatory quality with economic outcomes at the macro level. An important part of this literature stems from the Worldwide Governance Indicators, which measure regulatory quality as 1 of 6 pillars of governance. This literature has produced important findings: Better governance (including better regulatory quality) leads to higher income per capita.[5] Better governance is linked to faster economic growth.[6] And a heavier regulatory burden reduces economic growth and increases macroeconomic volatility.[7]

While this research uses data far from the areas into which *Doing Business* indicators are expanding, these findings are encouraging and they suggest a need to better understand what aspects of regulatory quality drive these results. Measures of the quality of business regulation at the micro level are lacking. By expanding its focus on regulatory quality, *Doing Business* will open a new area for research. The aim is to help develop greater understanding of the importance of the quality of business regulation and its link to regulatory efficiency and economic outcomes.

Six indicator sets are being expanded to measure regulatory quality: dealing with construction permits, getting electricity, registering property, paying taxes, enforcing contracts and

FIGURE 3.2 Small differences in the distance to frontier score between cities in the same economy



Note: The 45-degree line shows where the scores for the 2 cities are equal.
Source: Doing Business database.

resolving insolvency. The new indicators being introduced emphasize the importance of having the right type of regulations. In general, economies with less regulation or none at all will have a lower score on the new indicators.

Changes in *Doing Business 2015*

Resolving insolvency

The resolving insolvency indicators measure the time, cost and outcome of an insolvency process for a case study firm and the recovery rate for its secured creditors. The indicators have focused mainly on the efficiency of the bankruptcy court system. But by measuring the outcome of the process—that is, whether the firm continues to operate or not—the indicators were already assessing some dimensions of the quality of insolvency regulation. In this year's report the indicators go further, by explicitly measuring the strength of the legal framework for insolvency.

A new indicator, the strength of insolvency framework index, measures good practices in accordance with the World Bank's *Principles for Effective Insolvency and Creditor/Debtor Regimes* and the United Nations Commission on International Trade Law's (UNCITRAL) *Legislative Guide on Insolvency Law*.[8] The index measures 4 aspects. First, it records whether debtors and creditors have the right to commence liquidation proceedings, reorganization proceedings or both and what standard is used to determine whether a debtor is insolvent. Second, it tests what happens to the contracts of a debtor during insolvency proceedings, whether post-commencement financing is permitted and what level of priority is granted to post-commencement creditors. Third, it tests the approval process for a reorganization plan as well as certain substantive requirements for the plan. Finally, it tests the extent to which creditors can participate in insolvency proceedings as a group as well as the rights of individual creditors to litigate and appeal decisions that affect their rights.

Under the old methodology the distance to frontier score for resolving insolvency was based only on the recovery rate, which measures the cents on the dollar recouped by secured creditors through insolvency proceedings. Under the new methodology the score is based on both the recovery rate and the strength of insolvency framework index. A comparison of the 2 scores shows that many economies have insolvency laws that follow some good practices even if they may face challenges in implementing those laws (figure 3.3). For example, Brazil receives a score of 13 (of 16 possible points) on the strength of insolvency framework index while its recovery rate is only 25.8% of the estate value. Economies not performing well on the new indicator are those that use foreclosure to resolve the insolvency in the *Doing Business* standardized case. Foreclosure is normally a relatively fast process, typically resulting in a higher recovery rate—but it ignores unsecured creditors, something that would not be true of a well-designed insolvency framework. In Maldives, for example, secured creditors should expect to recover 49.9% of the estate value, but the country receives a score of only 2 on the strength of insolvency framework index.

For more details on the new index and its scoring methodology, see the data notes. For a complete discussion of the new indicator and an analysis of the data, see the case study on resolving insolvency.

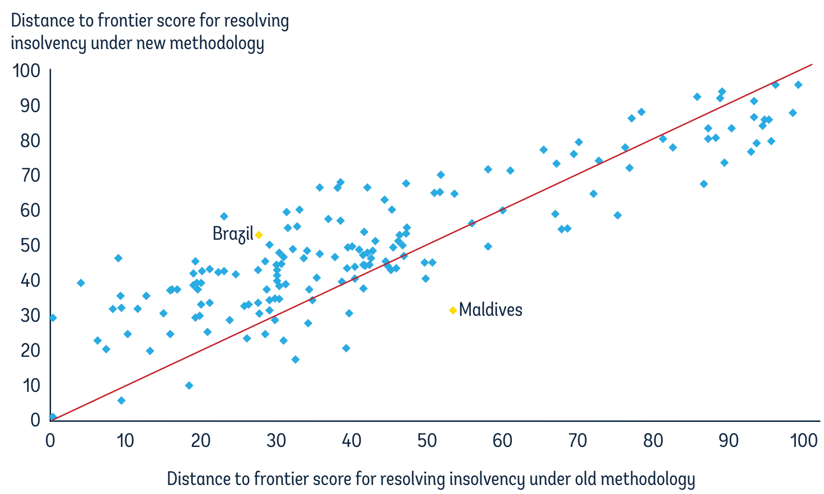
Changes in *Doing Business 2016*

Registering property

The registering property indicator set has measured the procedures, time and cost to transfer a property from one company to another since 2004. Starting in *Doing Business 2016*, the indicator set will be expanded to cover the reliability, transparency and geographic coverage of land administration systems as well as dispute resolution for land issues.

Ensuring the reliability of information on property titles is a crucial function of land administration systems. To

FIGURE 3.3 Comparing distance to frontier scores for resolving insolvency under the old and new methodologies



Note: Under the new methodology the distance to frontier score for resolving insolvency includes both the recovery rate and the strength of insolvency framework index; under the old one it includes only the recovery rate. Both scores are based on this year's data. The 45-degree line shows where the scores under the old and new methodologies are equal. The correlation between the 2 scores is 0.90.

Source: Doing Business database.

assess how well these systems are performing this function, a new indicator will record the practices used for collecting, recording, storing and processing information on land parcels and property titles. Specific attention will be given to practices that support data reliability, such as unifying, standardizing and synchronizing records across different sources and putting in place the necessary infrastructure to reduce the risk of errors.

The indicator will also provide information allowing comparison of transparency standards for land administration systems around the world. New data will record what land-related information is made publicly available, whether procedures and property transactions are transparent and whether information on fees for public services is easily accessible.

In addition, the indicator will measure the coverage levels attained by land registration and mapping systems. A land administration system that does not cover the economy's entire territory is unable to guarantee the protection of property rights in areas that lack institutionalized information on land. The result is a dual system, with both formal and informal land markets. To be enforceable, all transactions need to be publicly verified and authenticated at the registry.

Finally, the indicator will allow comparative analysis of land dispute resolution across economies. It will measure the accessibility of conflict resolution mechanisms and the extent of liability for the entities or agents recording land transactions. For a complete discussion of the new indicator and a preliminary data analysis, see the case study on registering property.

Dealing with construction permits

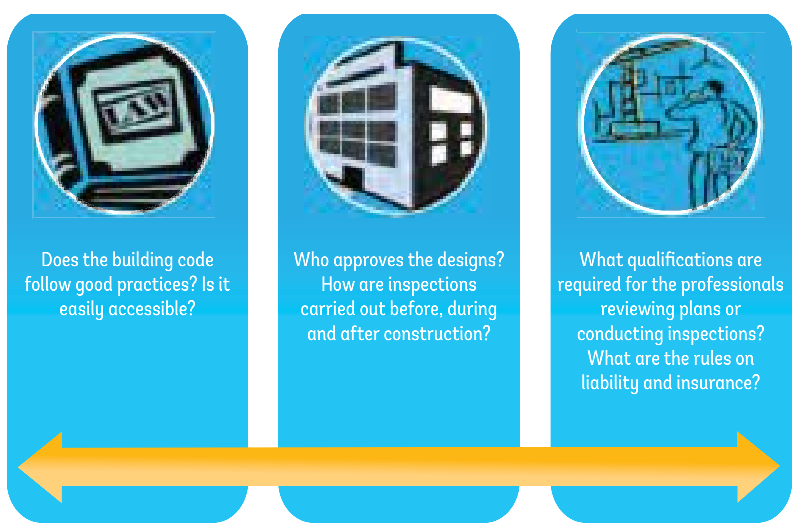
The existing indicator set on dealing with construction permits measures the procedures, time and cost to comply with the formalities to build a warehouse—including obtaining necessary licenses and permits, completing required notifications and inspections and obtaining utility connections. The indicator set will be expanded in *Doing Business 2016* to measure good practices in construction regulation (see figure 3.4 for some of the new aspects that will be added to the indicator set).

The changes will address important issues facing the building community. One is the need for clarity in the rules, to ensure that regulation of construction can fulfill the vital function of helping to protect the public from faulty building practices. Besides being clear, building rules also need to be adaptable, so that they can keep up with economic and technological change. To assess these characteristics, a new indicator on regulatory quality will examine how clearly the building code or building regulations specify the requirements for obtaining a building permit and how easily accessible the regulations are.

Beyond measuring the clarity and accessibility of regulations, the indicator will assess the effectiveness of inspection systems. Good inspection systems are critical to ensuring public safety. They can ensure that buildings comply with proper safety standards, reducing the chances of structural faults. And requirements that technical experts review the proposed plans before construction even begins can reduce the risk of structural failures later on. The new indicator will cover quality control at 3 stages: before, during and after construction.

Measures of quality control before construction will look at 2 points: which entity is required to verify that the architectural plans and drawings comply with the building regulations and who makes up the team or committee that reviews and approves building permit applications at the permit-issuing agency. Measures of quality control during construction will examine 3 points: what types of mandatory inspections (if any) are required by law during construction; which agency is responsible for conducting these inspections; and whether inspections required by law are actually carried out (or, if not required by law, commonly occur in practice). Measures of quality control after construction will also examine 3 points: whether a final inspection is required by law to

FIGURE 3.4 What will be added to dealing with construction permits



verify that the building was built in accordance with the approved plans and the building regulations; which agency is responsible for conducting the final inspection; and whether the final inspection required by law is actually carried out (or, if not required by law, commonly occurs in practice).

The professionals who conduct the inspections play a vital part in ensuring that buildings meet safety standards. So it is important that these professionals be certified and that they have the necessary technical qualifications. And if safety violations or construction flaws occur despite their efforts, it is important to have a well-defined liability and insurance structure to cover losses resulting from any structural faults.

The new indicator will cover several points relating to these issues: what the qualification requirements are for the professionals responsible for verifying the architectural plans and for those authorized to supervise the construction; which parties are held legally liable for construction flaws or problems affecting the structural safety of the building once occupied; which parties are required by law to obtain an insurance policy to cover possible flaws or problems affecting the structural safety of the building once occupied; and what the consequences are for the construction company and the professionals authorized to supervise construction if construction flaws or problems are found or if building regulations were not complied with.

Getting electricity

The existing data set on getting electricity measures the efficiency of the process for obtaining an electricity connection for a standard warehouse—as reflected in the procedures, time and cost required. While the efficiency of the connection process has proved to be a useful proxy for the overall efficiency of the electricity sector, these measures cover only a small part of the sector's performance. Beyond the complexity and high cost of getting an electricity connection, inadequate or unreliable power supply is also perceived as an important constraint on business activity, particularly in the developing world. To offer a more complete view of the electricity sector, *Doing Business* will broaden the scope of the getting electricity indicators to include the reliability of the power supply (figure 3.5). The expanded data set will be published in *Doing Business 2016*.

A new indicator will assess the reliability of electricity supply by measuring both the duration and the frequency of power outages. The indicator will use the system average interruption duration index (SAIDI) and the system average interruption frequency index (SAIFI). SAIDI is the average total duration of outages over the course of a year for each customer served, while SAIFI is the average number of service interruptions experienced by a customer in a year.

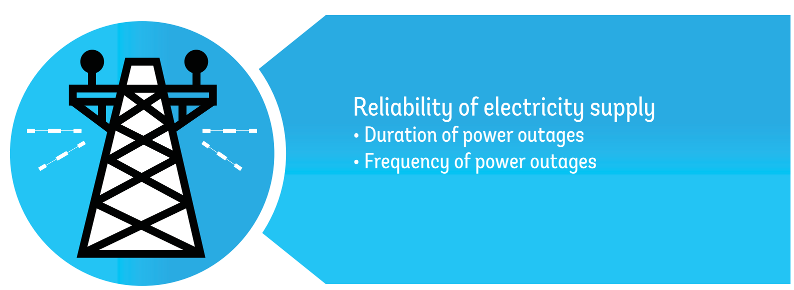
Collecting these data can be challenging. The SAIDI and SAIFI measures are often recorded by utility companies, and the availability and quality of the data depend on the utilities' ability to collect the information. To provide an understanding of the quality of monitoring, the indicator will also record the methods used by electricity distribution companies to measure power outages.

Paying taxes

The paying taxes indicators measure the taxes and mandatory contributions that a medium-size company must pay in a given year as well as the administrative burden of paying taxes and contributions. The indicators now measure only the administrative burden associated with preparing, filing and paying 3 major tax categories (profit taxes, consumption taxes and labor taxes). But the postfiling process—involving tax audits, tax refunds and tax appeals—can also impose a substantial administrative burden on firms. Starting in *Doing Business 2016*, the paying taxes indicator set will therefore be expanded to include measures of the postfiling process.

In addition, this year's report includes an important change in the methodology for the paying taxes indicators. The distance to frontier score for the total tax rate now enters the distance to frontier score for paying taxes in a nonlinear fashion. As a result of this change, an increase in the total tax rate has a smaller impact on the distance to frontier score for paying taxes than previously for economies with a below-average total tax rate and a larger impact for economies with a very high total tax rate relative to the average (see figure 15.2 and the related discussion in the chapter on the distance to frontier and ease of doing business ranking).

FIGURE 3.5 What will be added to getting electricity



Enforcing contracts

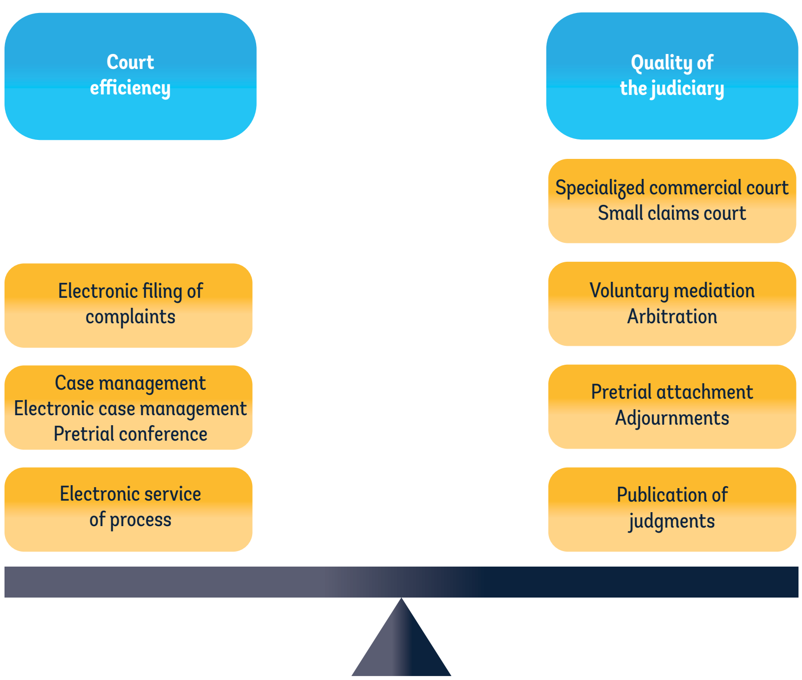
The enforcing contracts indicators measure the procedures, time and cost to resolve a commercial dispute between 2 firms. The indicators have focused on the efficiency of the commercial court system without directly addressing the quality of the judiciary or the judicial infrastructure. In *Doing Business 2016* the indicator set will be expanded to cover aspects of judicial quality and court infrastructure, focusing on well-established good practices that promote quality and efficiency in the commercial court system (figure 3.6).

To assess the quality of the judiciary and judicial infrastructure, a new indicator will record whether there is a specialized commercial court or division; whether there is a small claims court; whether voluntary mediation is available; whether arbitration is available; whether pretrial attachment of assets is available; whether it is common practice for the parties in a commercial case to request adjournments and whether the law sets a limit on the total number allowed; and whether judgments in commercial cases are made available to the general public.

Another new indicator will measure court efficiency. This indicator will record whether the initial complaint can be filed electronically; whether case management is available; whether electronic case management is available; whether there is a pretrial conference as part of the case management system; and whether process can be served electronically.

Once these new data are collected and presented in *Doing Business 2016*, the indicator on the number of procedures to enforce a contract will be dropped.

FIGURE 3.6 What will be added to enforcing contracts



EXPANDING THE EXISTING MEASURES OF QUALITY

Two sets of *Doing Business* indicators—getting credit and protecting minority investors—already measure aspects of regulatory quality. These indicator sets have been expanded in this year's report to incorporate more recent knowledge on good practices. These changes are reflected in this year's ranking on the ease of doing business.

Getting credit

The getting credit indicators assess the legal rights of borrowers and lenders in secured transactions and the sharing of credit information. Measures compiled in the strength of legal rights index focus on whether collateral and bankruptcy laws include certain features that facilitate lending. Those combined in the depth of credit information index focus on the coverage, scope and accessibility of credit information available through credit bureaus and registries. Both sets of measures have been expanded this year to cover more good practices (figure 3.7).

The strength of legal rights index has been expanded from 10 points to 12, with the new aspects selected in accordance with UNCITRAL's *Legislative Guide on Secured Transactions*.[9] One of the new points is awarded for having an integrated secured transactions system. Modern secured transactions systems are aimed at ensuring that a prospective creditor can easily determine not only whether an asset has already been pledged as collateral but also whether there is some other type of right over that asset. Such rights might be established by legal instruments that are functional equivalents to security interests. In an integrated secured transactions system these instruments are regulated under the same law as traditional security interests. This approach provides the greatest transparency and predictability—because all rights in collateral, whether traditional security interests or their functional equivalents, are registered at the same registry, and the law will contemplate how priority rules apply across the different types of contracts.

FIGURE 3.7 What has been added to getting credit

Other new points are awarded for having a well-functioning collateral registry, defined by several characteristics. One is that the registry must cover any type of secured transaction, regardless of the type of debtor, creditor or assets.[10] Another is that the registry must be a notice-based registry. This type of registry has much lower administrative and archival costs than a document registry, which must register voluminous documentation and have specialists review the documents provided and the assets used as collateral.

Finally, the registry must offer modern features. Secured creditors (or their representatives) should be able to register, search, amend and cancel security interests online. Information in the database should be updated immediately or no more than 24 hours after registration documents are submitted. And the registry should have a digital database for storing the information. These types of online solutions enhance the efficiency of a registry and the reliability of the information it records. Establishing and maintaining such systems can be costly, however, and these systems need to be backed by adequate legislation, such as privacy laws and regulations on electronic signatures.

The depth of credit information index has been expanded from 6 points to 8. In addition, because of the importance of coverage in assessing the effectiveness of a credit information system, only credit bureaus or registries that cover at least 5% of the adult population are being scored.

One of the new points is awarded to economies where credit information can be accessed through an online platform or through a system-to-system connection between financial institutions and the credit information system. Online access can improve data quality and security, increase efficiency and transparency and ensure a high standard of service for users—and thus might increase the number of reporting institutions that share credit information.

Another new point is awarded to economies where credit scores are available. Credit scores, considered more effective in predicting risk than credit histories alone, may improve market efficiency and provide borrowers with more opportunities to obtain credit. Their availability enables lenders that would otherwise not be capable of analyzing the raw credit data to extend credit to underserved markets at lower cost.

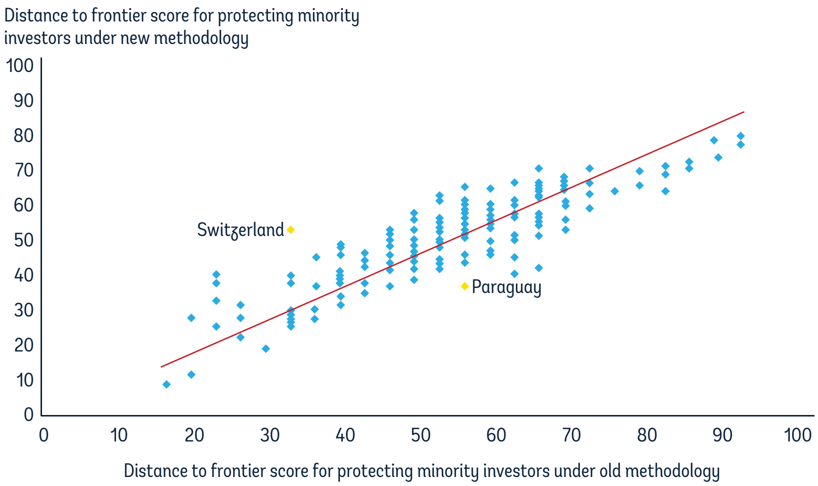
For more details on the expanded indicators and their scoring methodology, see the data notes. For a complete discussion of the indicators and an analysis of the data, see the case study on getting credit.

Protecting minority investors

The name of the protecting investors indicator set has been changed this year to protecting minority investors to better reflect its scope—and the scope of the indicator set has been expanded. The indicators have traditionally measured the strength of minority shareholder protections against directors' misuse of corporate assets for personal gain. This year a new indicator has been added to measure shareholders' rights in corporate governance beyond related-party transactions, following internationally accepted good practices such as those proposed by the *OECD Principles of Corporate Governance*.[11] The new indicator, the extent of shareholder governance index, encompasses a range of issues and data:

- *Shareholders' rights and role in major corporate decisions*—the extent to which shareholders can influence important corporate decisions, such as appointing and removing board members, issuing new shares and amending the company's bylaws and articles of association.
- *Governance structure*—the extent to which the law mandates separation between corporate constituencies to minimize potential agency conflicts. The issues covered include whether the chief executive officer (CEO) can also be chair of the board of directors, whether a board must include a minimum number of independent directors and whether there are rules relating to cross-shareholding and subsidiary ownership.
- *Transparency*—the extent to which companies are required to disclose information about their finances, about the remuneration of their managers and directors and about other directorships they hold. Transparency has been found to improve governance and lower the cost of investment in capital markets.
- *Allocation of legal expenses*—the extent to which the expenses associated with lawsuits brought by shareholders can be recovered from the company or the payment of the expenses can be made contingent on a successful outcome. The data provide information on whether

FIGURE 3.8 Comparing distance to frontier scores for protecting minority investors under the old and new methodologies



Note: Under the new methodology the distance to frontier score for protecting minority investors includes 6 areas of corporate governance; under the old one it includes 3 of the 6 areas. Both scores are based on this year's data. The 45-degree line shows where the scores under the old and new methodologies are equal. The correlation between the 2 scores is 0.87.

Source: Doing Business database.

filing a shareholder action is prohibitively expensive—and therefore impracticable even if allowed by law.

By expanding the scope of the indicators *Doing Business* has raised the bar, making it more difficult to reach the frontier. The highest distance to frontier score for protecting minority investors observed under the new methodology is lower than the highest one under the old methodology (figure 3.8). The average score across all economies covered by *Doing Business* is also lower under the new methodology than under the old one. This is true even though the possible range of the overall measure, the strength of minority investor protection index, continues to be 0–10. Yet some economies score higher on the overall index under the new methodology. One of them is Switzerland. While it performs relatively poorly in protecting minority investors in related-party transactions, it does considerably better on general corporate governance rules. For others, such as Paraguay, the opposite is true.

For more details on the methodology for the protecting minority investors indicators, see the data notes. For a complete discussion of the new indicator and an analysis of the data, see the case study on protecting minority investors.

NOTES

1. For more information on the Independent Panel on *Doing Business* and its work, see its website at http://www.dbrpanel.org.
2. See the data notes for more details.
3. Where the second and third largest cities were very close in population size, the GDP of the city or relevant state was used to determine which city was the second largest business city.
4. For more details, see the chapter in *Doing Business 2014* on research on the effects of business regulations.
5. Kaufmann and Kraay 2002.
6. Cuzman, Dima and Dima 2010.
7. Loayza, Oviedo and Servén 2010.
8. World Bank 2011b; UNCITRAL 2004.
9. UNCITRAL 2007.
10. Excluding exemptions such as planes, boats and the like, which are traditionally covered by different registries.
11. OECD 2004.