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The World Bank Doing Business Index for Canada: An Assessment

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The World Bank Doing Business Index for Canada: An Assessment

Executive Summary

The World Bank Doing Business Index (DBI) attempts to measure the business environment in ten areas or pillars for 190 countries. This flagship World Bank publication is both very influential, leading to governments taking measures to improve their ranking, and controversial, as seen by the World Bank decision to suspend the DBI program in August 2020 for the investigation of data irregularities. The objective of this report is to provide a detailed assessment of the DBI as it relates to Canada.

An assessment of the DBI for Canada is motivated by the fall in Canada's ranking on the DBI from 4th in 2007, the first year ranking were produced, to 23rd out of 190 countries in 2020. Should such a decline be considered evidence that Canada's environment for doing business is worsening compared to other countries, or is the decline a statistical artifact related to methodological issues and data problems, or is the fall caused by negative developments in indicators that have little overall importance for business? The report addresses these questions.

The DBI covers ten dimensions or pillars of the regulatory and business environment, namely, 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. Each year the World Bank administers detailed questionnaires applicable to the country's major city (Toronto in the case of Canada) on the 10 DBI pillars to business experts, mostly lawyers, in the 190 countries covered by the DBI. From the responses, World Bank officials develop estimates for indicators related to business operations and regulatory requirements (e.g., number of procedures, time, cost and quality). This information is then transformed into scores and ranking for the pillars and the overall index.

Canada's current ranking on the pillars and developments since 2007 are highlighted below.

- In terms of position in 2020, Canada ranked highest in starting a business (3rd), followed by protecting minority investors (7th), resolving insolvency (13th), getting credit (15th), and paying taxes (19th).

- Canada ranked lowest in getting electricity (124th), followed by enforcing contracts (100th), dealing with construction permits (64th), and trading across borders (51st).

- Between 2007 and 2020, Canada's ranking declined in nine of the ten pillars. The exception was paying taxes. The largest fall in ranking was in enforcing contracts (down 84 places), followed by trading across borders (43 places) and dealing with construction permits (32 places). The replacement of the employing workers pillar, in which Canada ranked highly, by the poorly ranked getting electricity pillar also represented a major fall in ranking (111 places).

- The deterioration in Canada's DBI ranking between 2007 and 2020 took place in three discrete jumps, each associated with particular development in one or more pillars. The first jump in 2008-2009 was linked to the trading across borders and enforcing contracts pillars, the second between 2011 and 2014 was due to the construction permits pillar and the introduction of the getting electricity pillar, and the third in 2017 was related to the enforcing contracts pillar.

To explain the decline in Canada's DBI ranking, the report conducts a deep dive on developments in the four pillars that experienced the largest fall in ranking to identify the specific indicator or indicators responsible for the fall. The key findings are highlighted below.

- The fall in the ranking for the dealing with construction permits pillar was due to the increase in the number of days needed to obtain a construction permit from 73 days in 2012 to 249 days in 2014, driving Canada's ranking for this indicator from 15th to 160$^{th.}$.
- The decline in the enforcing contract pillar was also due to the very large increase in time for court cases, from 346 days in 2007 to 910 days in 2020, raising Canada's ranking for this indicator from 47th to 160th.

- The fall in the ranking for the trading across borders pillar reflects an increase in trading costs. The cost of exporting a container rose from US$700 in 2007 to US$1,660 in 2009, with the ranking going from 40th to 130th. The cost of importing a container rose from US$850 in 2007 to US$1,785 in 2009 with the ranking falling from 50th to 122nd. No explanation is provided for this massive increase on cost, which is inconsistent with overall price developments. Even with the introduction of new cost indicators for the trading across borders pillar in 2016, Canada's ranking on costs remained very poor.

- Canada has done poorly in the getting electricity pillar since it was introduced in 2012 to replace the employing workers pillar where Canada ranked well. This change in pillars reduced Canada's overall DBI ranking. The poor performance in getting electricity is explained by both the number of procedures (Canada ranked 169th in 2012 and 162nd in 2020) and the time needed (Canada ranked 156th and 171st).

The report compares Canada's DBI ranking with its rankings in two international competitiveness indexes (the Global Competitiveness Index and the World Competitiveness Index) and in two indexes on the economic environment (The Economic Freedom Index and the Human Freedom Index). For the most recent year for which estimates are available, Canada's DBI ranking is lower than that of all four other indexes. In addition, while Canada's DBI ranking has fallen since 2007, our ranking on the four other indexes has been relatively stable. There are two possible explanations for this inconsistency. First, the indexes may be capturing different phenomena, with the DBI confined to specific business practices and regulations. Support for this hypothesis is provided by the OECD Product Market Regulation Index which in 2018 ranked Canada 34th out of 36 countries. Second, data issues, including data errors and use of indicators that have limited relevance for efficient operation of most businesses, may be providing a false signal on trends in the ease of doing business in this country.

The DBI has come under criticism from persons both inside and outside the World Bank. The report reviews the finding of four evaluations the World Bank commissioned on the DBI, as well as critiques from NGOs in the development community. Weaknesses and limitations of the DBI that have been pointed out include:

- manipulation of DB rankings by World Bank staff for political purposes, as reported in the December 2020 World Bank audit following the August 2020 DB suspension.
- the limited number, poor quality, and narrow perspective of contributors;
- inconsistencies in rankings over time due to methodological changes and introduction of new pillars or indicators;
- the omission from the DBI of key factors affecting the business environment such as corruption and infrastructure;
- a failure to balance the benefits of business regulation with the costs;
- inconsistencies between the DBI results and results from firm-level enterprise surveys;
- a "one size fits all" approach that ignores the local context;
- DBI-induced pressures on governments to game the index by making regulatory changes that improve the country's ranking and gain political points, but have only superficial or limited effect on the ease of doing business and development;

- insufficient attention in the DBI to consider equity implications arising from changes in indicators; and

- mixed success in identifying a close relationship running from improvements in DBI pillars and indicators to sustainable and equitable development.

Overall, the benchmarking of Canadian performance related to the ease of doing business relative to other countries is very informative. But some of the results appear strange and merit further investigation. The DBI results for Canada, at the national level, may not always be meaningful.

Indeed, the suspension of the DBI by the World Bank because of data irregularities in August 2020 supports this cautious approach to the DBI. The full results of this investigation should be awaited before a definite assessment is given on the validity and reliability of the DBI. The initial audit results confirming data manipulation by World Bank staff because of political pressure are not encouraging.

Nevertheless, given the massive amount of information on the business environment that is generated by the DBI, and the great value of this information, a case can be made that the continuation of the DBI in some form is desirable, at least from a knowledge perspective. It is better to have detailed information on doing business indicators for 190 countries, including Canada, than to have no information, even if some of this information is not perfect.

The World Bank Doing Business Index for Canada: An Assessment[1]

Introduction: Background and Motivation for the Report

Policy-makers understand the importance of competitiveness to the well-being and prosperity of Canadians. Although much talked and written about, competitiveness does not have a single and universally accepted definition. Various organizations and think-tanks produce competitiveness studies and indices, one of which is the World Bank's Ease of Doing Business Index (DBI). In response to a request from Global Affairs Canada, the Centre for the Study of Living Standards (CSLS) has conducted a deep dive into the World Bank Doing Business Index for Canada.

The report examines the intent of the Index, the scientific soundness of data, the methodology, methodological changes over the time series of the index, and assesses the impact of methodological changes on Canada's ranking; It also discusses the quality of the index (e.g. whether the DB index may lead to "false negative" conclusion or encourage a race to the bottom to improve a country's ranking); and review any other pertinent information available for Canada and select countries ranked ahead of Canada (e.g. the United States, Australia and New Zealand) to assess the pertinence of this index for Canadian policy-making; Finally the report compares the DBI index with other relevant indices (e.g. OECD's *Product Market Regulation* (PMR) Index, WEF's *Global Competitiveness Index*, and IMD's *World Competitiveness Yearbook*).

The five specific tasks for this report identified by Global Affairs Canada are the following: 1) review data quality and methodology, including any changes, used by the World Bank for this index; 2) analyze Canada's performance and compare it to that of other similar countries, and those who have managed to surpass Canada, including a review of performance of the overall index, pillars and indicators; 3) assess the pertinence of the overall index and sub-components to policy-making; 4) compare the DBI to other analogous measures produced by other organizations; and 5) develop recommendations on the appropriate use of the DBI to inform policy-making (for example, whether changes in overall ranking over time are meaningful, and what peer countries Canada should be compared to).

[1] This report was written by Andrew Sharpe, with contributions from Rachel Hammond and Gratiela-Catalina Ciorica. The Centre for the Study of Living Standards would like to thank Global Affairs Canada for the invitation to prepare this report. The author would like to thank Global Affairs officials, particularly Cristina Popovico and Melanie Raymond, Bert Waslamder and participants in the March 4 webinar on the report for comments

The report is divided into seven major sections. The first section provides context for the report by looking at the history of the World Bank's Doing Business Index, referred to as the DBI or the Index,[2] including the motivation for the Index, the impact of the Index, the chronology of developments related to the Index and controversies associated with the Index. The second section looks at the structure of the Index and the methodology. The third section provides a snapshot of Canada's overall performance on the Index. The fourth section, the longest, provides a detailed examination of or "deep dive" on how Canada has performed on the Index since 2007 and the reasons for this performance. The fifth section compares the Index with six other international indexes of competitiveness or economic performance. The sixth section provides a critical assessment of the strengths and weaknesses of the DBI. The seventh and final section concludes and provides recommendations for Global Affairs for the use of the DBI to inform policy-making. An Appendix provides additional information on the DBI.

I. The World Bank Doing Business Index: An Overview

The Doing Business Index (DBI) is a measure of the ease of operation of businesses in a jurisdiction. Many firms – from small to (especially) large – take the results and the rankings of the Index, and the general report that accompanies the Index, as a barometer of how business-friendly a jurisdiction is. Indeed, some enterprises use the DBI results as a first filter when examining where to open a representative office, regional headquarter or generally where to do business.

The DBI is presented in the Doing Business Report (DBR or "Report"). It is a global performance report and is a flagship publication of the World Bank. It is an annual report published by the Bank since 2003 (2004 edition of the Report) with the aim of measuring the business climate of each of its member states.[3] In the most recent Report, 190 entities were assessed. The Report was initiated by the Bank as a way to encourage economic development of its member states through regulatory reforms.

The Report is released in the fourth quarter of each year as a guide for the business environment in the coming year. The 2020 Report was made public in October 2019. The 2021 Report was to be launched at the end of October 2020 until the DBI was suspended in August of last year.

The DBI provides useful insights into which parts of the public and private sectors are efficient and which parts are lagging. The Index is especially relevant, though, for the public sector given that it, in large part, measures the enabling environment of regulations. The Doing Business

[2] In the literature on the DBI, the acronym DBR or Doing Business Report is often used, This DRB is the report or document that presents estimates of the DBI. Both DBI and DBR will be used in this report,
[3] See Appendix 4 for a time series of Canada's performance on the Index and its pillars.

Report accompanies the Index and examines the details of the Index, how countries have performed against each other and over time, and also particular theme(s) relevant to each year (World Bank, 2019a). It is a global publication produced by a reputable institution (World Bank) and is widely known and used in the business community. It has had the support and input of leading academics (e.g., Oliver Hart and Adrei Shleifer, both of Harvard University) and policy makers over the years to arrive at its current form.

A. Motivation for the Doing Business Index

Analysts of the economic development process focus on identifying the conditions that facilitate economic growth. The business environment is considered particularly important as, in market economies, economic growth is largely driven by the business sector. A favourable business environment is often seen as a pre-condition for business investment. There are many different aspects of the business environment and their relative importance can vary over time, across countries, with the stage of economic development, and depend on the perspective of the analyst.

The objective of the World Bank is to promote economic development in the underdeveloped world to reduce poverty. To attain this objective, the World Bank provides financial resources to developing countries and provides advice on what are the most effective frameworks and policies to foster development. With its market orientation, the World Bank has traditionally promoted the view that removing barriers to business is a means to foster economic development. The fewer the barriers, that is the greater the ease of doing business, the greater, prospects for development, everything else being equal.

In the early 2000s, the World Bank attempted to identify the most important components or areas of the business environment and specific indicators that captured or represented these components. The resulting information could then be aggregated into an aggregate or composite index whereby countries could be assessed in both absolute and relative terms on their business friendliness. The result was the World Bank's Doing Business Index, first published in 2003.

This World Bank project was allocated substantial internal resources and became the organization's largest research undertaking. The project also was very successful with the annual Doing Business Report becoming one of the two World Bank flagship publications (the other is the annual Word Development Report). The Report also became very influential in the developing world, with countries making changes in their business regulations in response to the results for their country published in the Report to improve their ranking. These changes may have been real or cosmetic to game the indicator.

B. Controversies about the DBI

While certainly influential, the Doing Business Index has also been very controversial throughout its history. Indeed, because of concerns about the validity of the DBI estimates, the World Bank, on August 27, 2020, suspended, for review, production of the 2021 Doing Business Index. By early February 2021, no decision has been announced on the future of the DBI.

There have been two major controversies in the history of the DBI. First, in 2007, the International Labour Organization (ILO) and other labour groups objected to the labour market component, which was considered anti-union. Second, in 2018, the World Bank Chief Economist (and Nobel laureate in economics) Paul Romer made the claim that the DBI data were manipulated for political purposes in the case of Chile. In the first instance, the DBI made the decision to exclude the labour input from the calculation of the overall DBI score, but still gathered information on the measure. In the second case, Paul Romer ended up resigning from the World Bank over the incident.

The DBI is certainly less influential in Canada than in developing countries dependent on the World Bank for aid. But it is still important, as seen by the recent reference to the Index by the Business Council of Canada (BCC). In the Fall 2019 report of its Task Force on Canada's Economic Future, BCC indicated that a survey of its members had identified "the regulatory burden as the single most important factor weighting on Canadian competitiveness" (BCC, 2019:6). The BCC report recommended that Canada commit to the goal of being the most efficiently regulated country on earth, as measured by the DBI. In a federation, business regulations can vary by province and the DBI for Canada is based on information for Toronto, thus only capturing the business regulation framework in Ontario. The BCC recognized this limitation of the DBI for Canada. The BCC considered developing estimates of the DBI by province, but it appears that this project has not gone ahead.

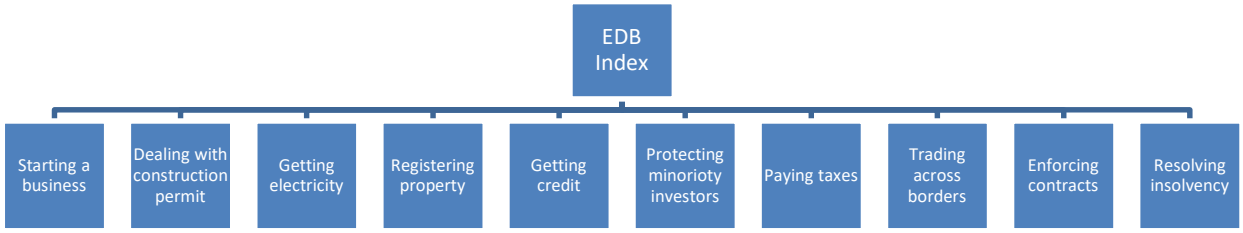
II. Structure and Methodology of the World Bank Doing Business Index

A. Structure of the DBI

The DBI aims to measure the costs to firms of business regulations. It is a theoretical exercise in that it examines the business regulations that pertain to a hypothetical firm (of a certain structure in a particular situation) that conducts business in the nation's business capital. In Canada, the city used in the DBI is Toronto. For some large countries more than one city may be used to ascertain the cost of doing business. For example, in the United States the cities are New York and Los Angeles. In such cases, the results for the cities are combined into one representative score for the country.

To assess the ease of doing business the hypothetical company is examined to see how onerous it is to execute various business activities, such as getting electricity or resolving insolvency. Ten of these general hypothetical situations are the pillars of the Index:

Exhibit 1: Pillars of the World Bank Doing Business Index



1. Starting a business
2. Dealing with construction permits
3. Getting electricity
4. Registering property
5. Getting credit
6. Protecting minority investors
7. Paying taxes
8. Trading across borders
9. Enforcing contracts
10. Resolving insolvency

The index value takes on values in the range 0 (worst) to 100 (best). The value is interpreted as a "distance to frontier" measurement, meaning it expresses how close a country is to the leader. The top five global leaders in 2020 were (from first to fifth): New Zealand, Singapore, Hong Kong, Denmark, and Korea. Canada places 23rd overall on the Index, placing as high as 3rd for the Starting a Business pillar and as low as 124th for the Getting Electricity pillar. The United States ranks 8th overall. (See Appendix 1 for a list of rankings for all 190 member states.)

The DBI can also be applied at a sub-national level (i.e., for regions/cities in a country). This application is not unusual. In fact, the World Bank has produced sub-national reports for 71 countries (including OECD countries) covering hundreds of regions,[4] including one for New York State. Sub-national reports are effective means to understand the business climate in particular regions or cities within a country. However, no sub-national report has ever been produced for Canada. Producing a sub-national report can be an extensive exercise for the World Bank. It requires not only significant resources from the Bank, but also a dedicated local team collaborating on the project.

[4] See: https://www.doingbusiness.org/en/reports/subnational-reports

1. The DBI in a Federation

Canada is a federation. Jurisdictional authority in many fields lies not with the central or national government, but with the sub-national levels of government. This has implications for the DBI for Canada, which is based on questionnaires administered in Toronto. For pillars under provincial regulation, the results for Canada based on Ontario legislation may not be accurate for other provinces. The same point applies to pillars under municipal jurisdiction, which will reflect the regulations for the City of Toronto.

Exhibit 2 shows which of the three levels of government in Canada (federal, provincial and municipal) has sole authority, or shared authority, for the ten DBI pillars. The federal government has sole authority for only one pillar (trading across borders), the provincial government two pillars (protecting minority investors and enforcing contracts), and municipal governments one pillar (construction permits).

There is shared jurisdiction between the federal government and the provincial government in four pillars (starting a business, getting credit, paying taxes, and resolving insolvency). There is shared jurisdiction between the provincial and municipal governments in two pillars (getting electricity and registering property).

The CSLS calculated an average ranking by jurisdiction. They found that the average rank for pillars under federal jurisdiction is 20, outperforming both the provincial government (40), and the municipal government (75). The federal government performs better on the three pillars under shared jurisdiction (getting credit, paying taxes and starting a business) than the trading across borders pillar.

Exhibit 2: Pillars by Jurisdiction for the Doing Business Index for Canada
Panel A: Jurisdiction by Pillar

	2020 Rank	Federal	Provincial	Municipal
Starting a business	3	X	X	
Dealing with construction permits	64			X
Getting electricity	124		X	X
Registering property	36		X	X
Getting credit	15	X	X	
Protecting minority investors	7		X	
Paying taxes	19	X	X	
Trading across borders	51	X		
Enforcing contracts	100		X	
Resolving insolvency	13	X	X	

Panel B: Number of Pillars by Jurisdiction

	Total Number of Pillars	Federal	Provincial	Municipal
Sole Jurisdiction	5	1	2	1
Joint Jurisdiction	5	4	6	2
Total Components under Jurisdiction	10	5	8	3

Panel C: Average Rank of Pillars Under Sole and Joint Jurisdiction and Overall, by Jurisdiction

	Total Average Rank	Federal	Provincial	Municipal
Sole Jurisdiction	47	51	53	64
Joint Jurisdiction	33	12	35	80
Total Components under Jurisdiction	43	20	40	75

Source: CSLS Calculations based on DBI rankings in WB publication.

B. Index Methodology

1. Input aggregation and weights

Exhibit 3: Summary of Index by Pillar, input type and weight

			= A + B	A	B	C	= A + C
#	PILLAR	WEIGHT	INDICATORS	DATA INDICATORS	COMPOSITE INDICATORS	COMPONENTS	ELEMENTS
1	Starting a business	10%	7	7	0	0	7
2	Dealing with construction permits	10%	4	3	1	11	14
3	Getting electricity	10%	4	3	1	6	9
4	Registering property	10%	4	3	1	27	30
5	Getting credit	10%	2	0	2	15	15
6	Protecting minority investors	10%	6	0	6	44	44
7	Paying taxes	10%	4	3	1	6	9
8	Trading across borders	10%	8	8	0	0	8
9	Enforcing contracts	10%	3	2	1	17	19
10	Resolving insolvency	10%	2	1	1	18	19
	COUNT	**10**	**44**	**30**	**14**	**144**	**174**
	WEIGHT	**100%**	**100%**	**61.7%**	**38.3%**	**38.3%**	**100%**

The Index is comprised of 10 pillars which are further divided into 44 indicators. (See Appendix 2 for a list of all the indicators.) These indicators can be either data indicators (30) or composite indicators (14). Composite indicators can be further broken down into their underlying components (144). The total number of elements (the smallest unit of division for the indicators) is thus 174 (144 + 30).

The methodology in place for the 2020 Report has been in force since the 2015 Report. The report has undergone several significant changes in methodology since its inception. In fact, the DB Report only began ranking countries in 2006 and initially only provided a ranking for an overall ease of doing business. In 2007, the Bank subsequently also started ranking countries on each of the pillars that comprise the Index. The ten pillars in use today began with the 2012 Report, and the use of the distance to frontier (a.k.a. ease of doing business score) was first implemented for the 2015 report. (See Appendix 3 for Canada's ranking performance on the Index and its pillars since 2007).

The DBI score is a simple average of the scores of its ten pillars. Thus, each pillar accounts for 10% of the final score of the Index. Underlying each of the pillars is a set of indicators whose weights are equally distributed across the number of indicators in their respective pillar. The scores of the various indicators are aggregated by converting them all first to a score ranging from 0 to 100 using a "distance to frontier" transformation, also called the "ease of doing business score":

$$d(x) = 100*[worst - x]/ [worst - best]$$

In the equation above, x is the score of an indicator for a given jurisdiction. The variable *worst* is the worst value taken on in the sample of countries (usually this is fixed and reset every few years or so) for the indicator, and *best* is the best value taken on in the sample of countries.[5] Since these variables are typically time, cost or procedures to execute a business transaction the lower the value the better. For example, if the number of procedures to start a business is 8, the number in the worst performing country is 21 and the number in the best performing country is 2 days, then the ease of doing business score for the starting a business indicator is 100*[21 – 8]/ [21 – 2] = 68.4.

Composite indicators are comprised of smaller elements, which are called components. The raw composite indicator score (i.e., before it is transformed into an ease of doing business score) is the sum of all its underlying component scores which are non-negative integer values. The component data are discrete variables that take on a positive integer value when a particular business condition is true and otherwise take a zero value.[6]

Once the indicators have been transformed to a form $d(x)$ they are then aggregated at the pillar level. Then the pillar scores are aggregated at the index level to arrive at the DBI Index score. Since all the indicators are converted to a score between 0 and 100, the pillar scores are also between 0 and 100, and likewise the Index score since they are just weighted averages of the indicator scores. A score of 100 represents being at the frontier; a score of 0 represents being the farthest from the frontier (laggard). Countries are then ranked on their Index score to arrive at the DBI rank. In addition, countries are ranked for each of the underlying pillar and indicator scores.[7]

2. Questionnaires

Although the inputs into the Index are objective rather than subjective measures, most of the inputs are based on expert opinion/knowledge surveys. This is because the inputs are generally measures of time, cost and procedures to do a business transaction for a hypothetical company operating in the business capital (or possibly in several cities) of a country. As such they require expert legal, accounting and other knowledge to ascertain these values. For example, this knowledge base might include information on whether parties who construct a structure are legally

[5] To deal with outliers sometimes the *best* and *worst* scores are truncated.

[6] For example, a component variable may be whether or not insurance is (legally) mandatory or not for a given transaction (with a score of 1 when it is the case and 0 otherwise).

[7] Although the DBI Index score is scaled to 100, doing time series comparisons can be tricky as there may be different published/official Index scores for a country. This is because the World Bank publishes a hard copy of the Index but it also maintains a live (real-time) score in which the value of underlying indicators may have changed since the Index was initially published in hard copy format. This may also affect the worst and best values of an indicator, so that even if there are no changes to a given country's indicators, its score (and rank) may change if the "goalposts" have changed, or if other countries' scores have changed. Sometimes there are also modifications to the Index methodology which may result in real-time results differing from results published in hard copy (or retrieved from Internet sources that have not been refreshed/updated).

liable for structural flaws. The World Bank administers 10 questionnaires for the report,[8] one for each of the pillars. Often it requires more than one expert to adequately answer the questionnaire. Time required to answer the survey can be substantial if it requires the expert to do research or other actions to generally track down the answer.

For the Canada DBI report, 53 experts, mostly lawyers were consulted by the World Bank.[9] The vast majority of these individuals are based in Toronto.

III. A Snapshot of Canada's Overall Performance on the DBI

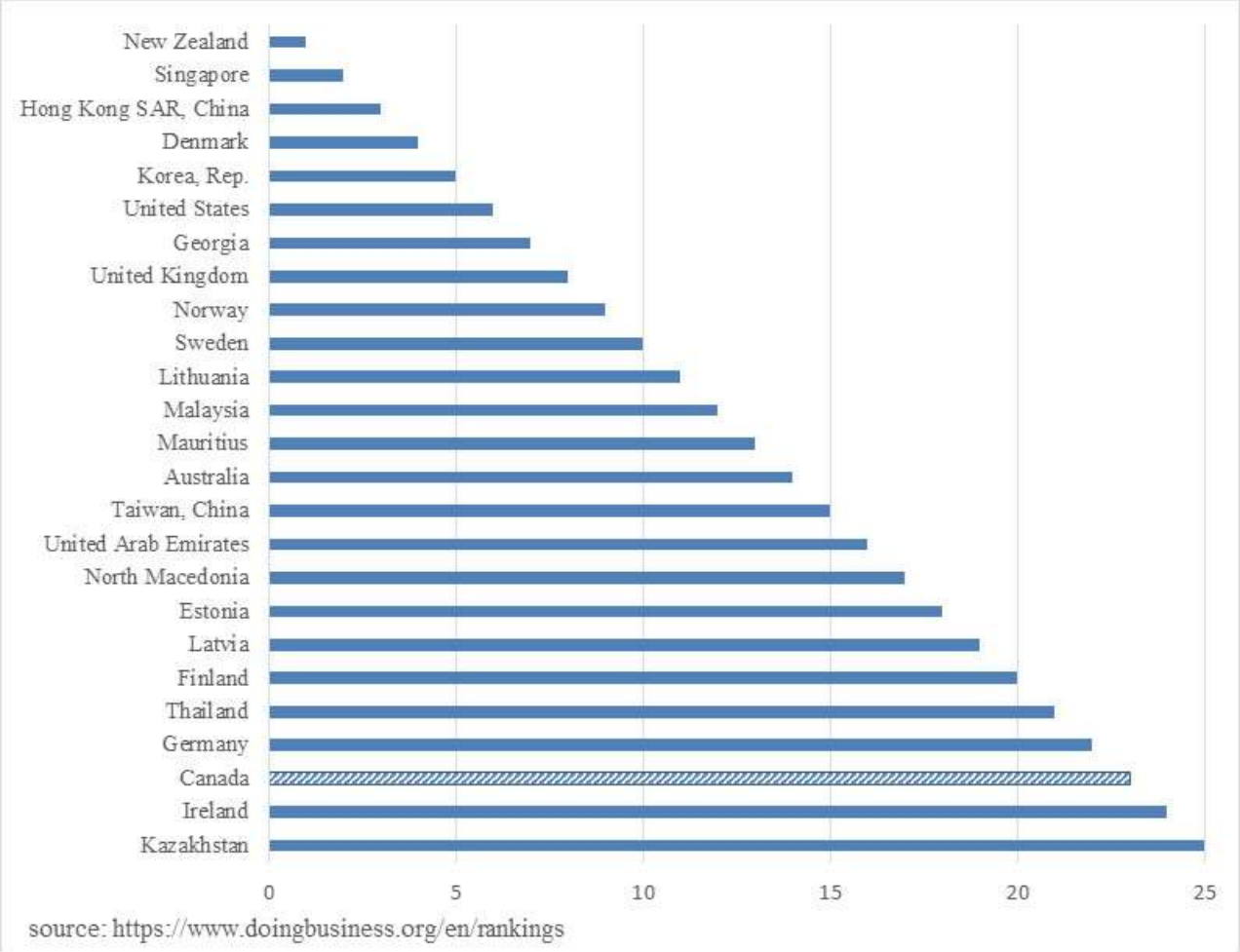
This section provides a snapshot of Canada's aggregate performance on the DBI from three angles. First, it looks at how Canada performed on the DBI in the 2020 publication of the Index (data for 2019) and compares Canada's performance with that of other countries. Second, it looks at how Canada's DBI ranking has evolved over the 2007-2020 period. Third, it compares Canada's performance on the DBI to that of other international competitiveness and economic environment indexes, both for the latest year and for trends over time.

A. Ranking in 2020

In 2020 Canada ranked 23rd out of 190 economies on the DBI. Chart 1 shows the top 25 countries in the DBI rankings in 2020. Appendix 1 provides the ranking for all 190 countries covered by the DBI. The top performing countries on the DBI in 2020 were New Zealand, followed by Singapore, Hong Kong, Denmark, and South Korea. The United States ranked sixth.

[8] An additional questionnaire related to Employing Workers is no longer used for the Index.
[9] See : https://www.doingbusiness.org/en/contributors/doing-business/canada

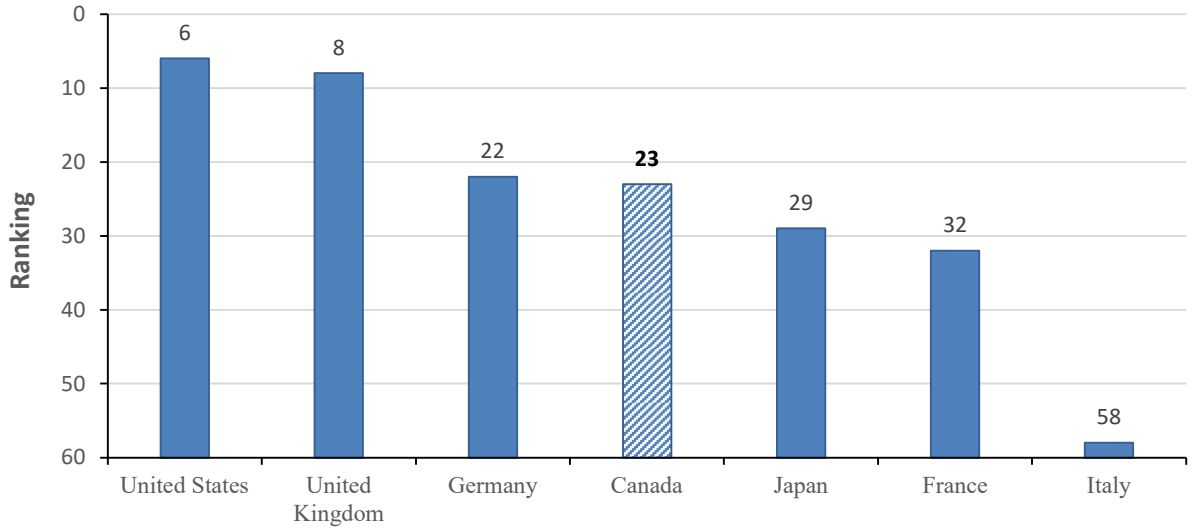
Chart 1: Top 25 Countries Overall Performance on the Doing Business Index



Canada's 23rd place may appear a not particularly impressive ranking for a rich, well governed country. Four observations outlined below place Canada's 23rd DBI ranking in context.

First, among G-7 countries (Chart 2) Canada ranks fourth behind the United States (6th), the UK (8th), and Germany (22nd), and ahead of Japan (29th) France (32nd), and Italy (58). Canada's score is highly comparable to Germany's who ranks just one place ahead.

Chart 2: Ranking of the G7 Countries on the Doing Business Index 2020



source: https://www.doingbusiness.org/en/rankings

Second, several non-G-7 OECD countries that generally do well on international competitiveness indexes do poorly on the DBI, including Switzerland (36th), the Netherlands (42nd), Belgium (46th), and Luxembourg (72nd). This suggests that an index designed to capture the ease of doing business is not the same as one that measures a country's ability to compete internationally.

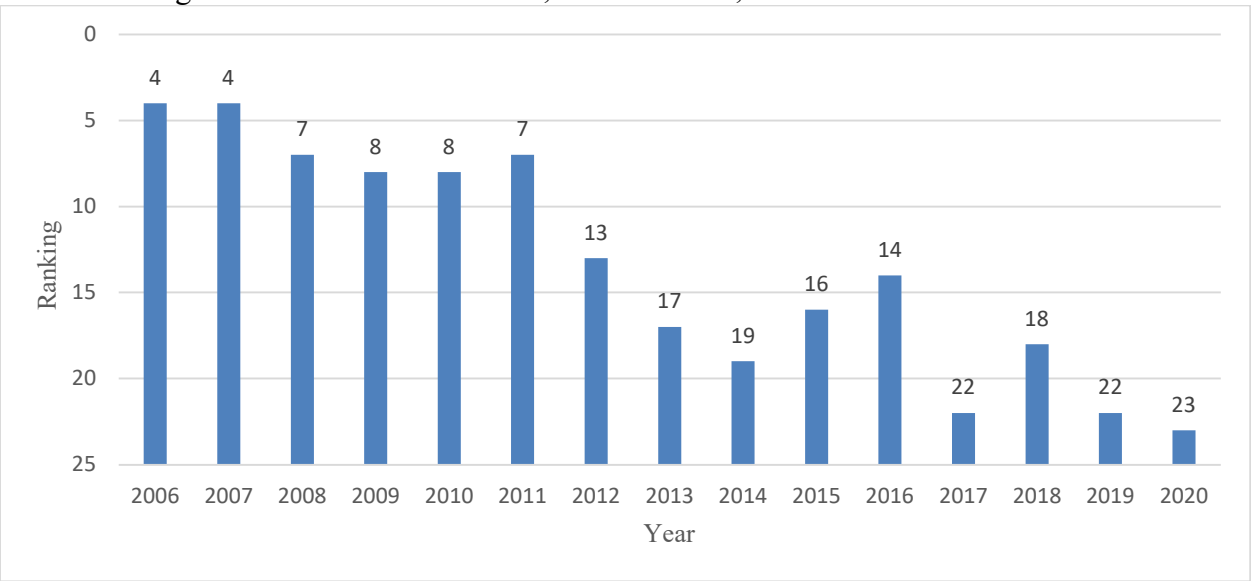
Third, a number of small, middle income countries not normally considered international leaders do remarkably well (in the top 20th) on the DBI, possibly because of their decisions to implement policies to directly target components of the DBI and foster competitiveness. These countries include Georgia (7th), Malaysia (12th), Mauritius (13th), North Macedonia (17th), United Arab Emirates (16th). It is also noteworthy that the UAE was involved in the data manipulation scandal story that broke in 2020.

Fourth, certain countries that are not historically known as business-friendly economies do quite well in the DBI. For example, Russia ranks 28th and China 31st.

B. Trends in Canada's DBI ranking

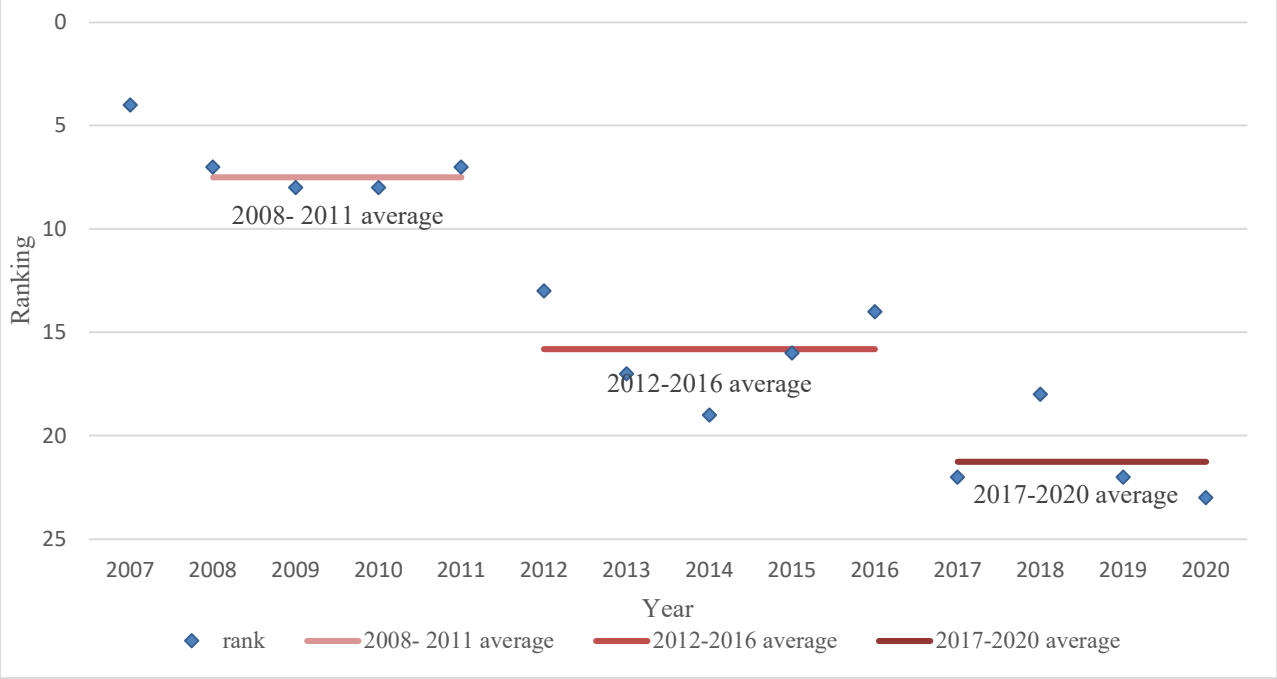
Canada's ranking in the Doing Business Index (DBI) fell 19 places from 4th to 23rd place in the 13 years between 2007 and 2020 (Chart 3). This deterioration has taken place in stages (Chart 4). In 2008, the ranking fell to 7th place and then stabilized for the next three years. Between 2011 and 2013 the ranking fell from 7th to 17th. It then remained more or less stable for the next three years, before decreasing to 22nd in 2017, and has remained around this level for the three subsequent years.

Chart 3: Doing Business Index for Canada, Overall Index, 2006-2020



Source: https://www.doingbusiness.org/en/reports/global-reports/doing-business-2020

Chart 4: Canada's Ranking in the Doing Business Index, 2007-2020



Source: https://www.doingbusiness.org/en/reports/global-reports/doing-business-2020

In other words, there have been three downward shifts in the path of the DBI ranking for Canada over the 2007-2020 period, downward shifts in 2008, 2012 and 2013, and 2017. This report will examine what was been behind each of these developments.

The downward trend in Canada's overall DBI ranking reflects three factors. The first is the change in Canada's ranking in specific pillars. This can be driven by changes in the values of the indicators that make up a pillar in Canada or by changes in the values of the indicators in other countries which change the ranking of those countries with respect to Canada, with no change in the values of indicators and the pillar in Canada.

Second, change in ranking can arise when a pillar's name is changed, either to capture the same general topic in a slightly different manner or when a pillar is replaced by another pillar on a completely differ topic. The ranking for the revised or new pillar may differ substantially from the ones they replace, resulting in major changes in overall ranking. Three of the original 10 pillars have been altered since 2007, with dealing with licences becoming dealing with construction permits, protecting investors becoming protecting minority investors and closing a business becoming resolving insolvency. One pillar was entirely replaced, with employing workers becoming getting electricity.

Third, change in ranking for a pillar may reflect changes in indicators used for the pillar, even though the name of the pillar remained unchanged. This has happened in the trading across borders pillar in 2016.

The analysis will proceed in three steps. First, the ranking of the pillars in 2020 will be discussed. Second, the trends in the six original pillars will be examined and the contributions of any deterioration in these pillars to the overall deterioration identified. Third, the introduction of the four replacement pillars will be examined, both in terms of the impact of the replacement on the overall ranking and trend in the pillar ranking since this introduction.

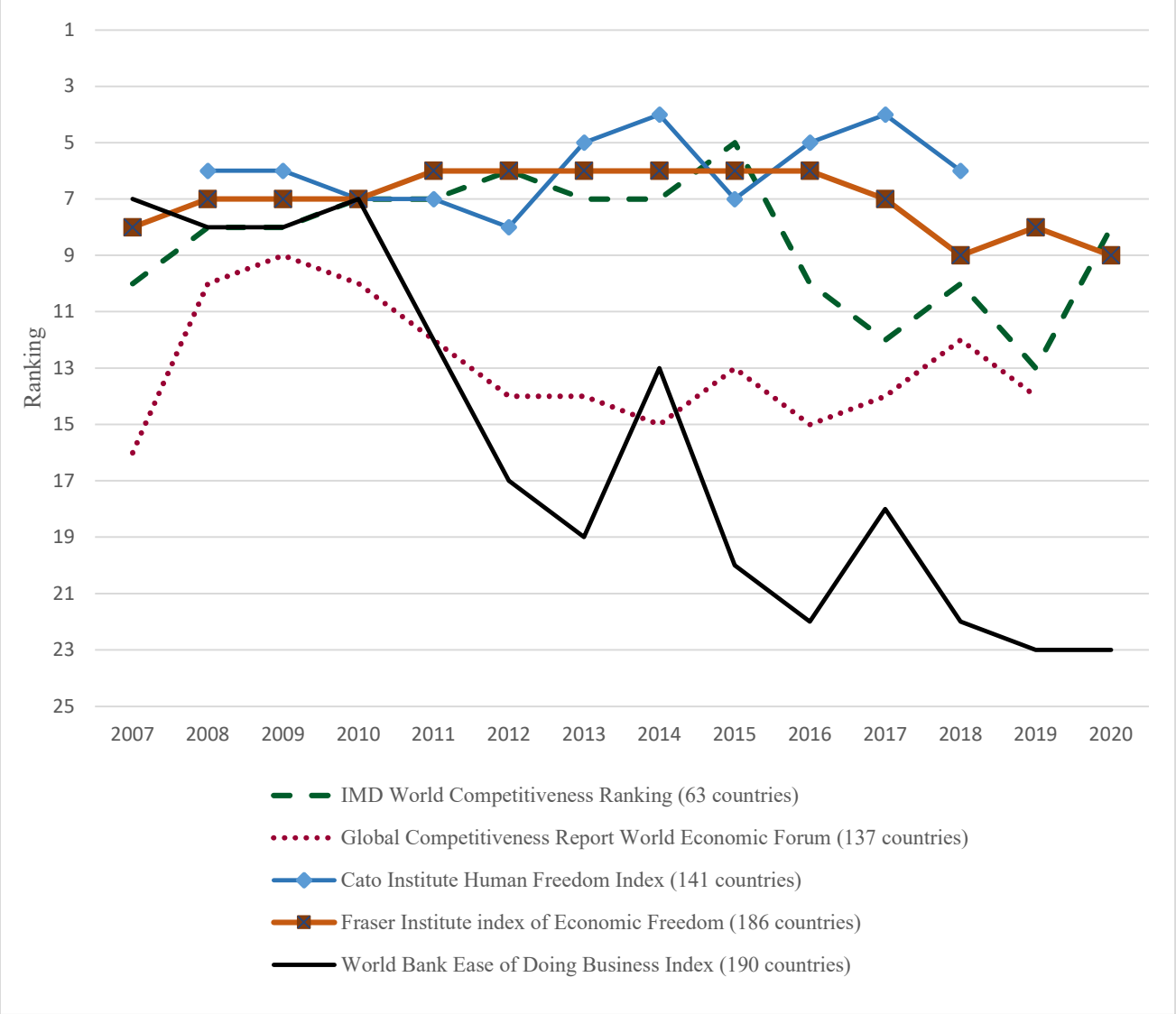
The report will identify which pillars have been responsible for the downward trend or fall in the Canada's DBI ranking and then undertake a deep dive to explain what is driving the downward trends in each pillar.

C. Comparison with Other International Indexes

Canada's 23rd ranking in the DBI in 2020 compared unfavourably with that of the country's ranking in four prominent competitiveness or economic environment indexes, as shown in Chart 5. For the most recent year for which data are currently available, Canada ranked 6th in the Human Freedom Index, 8th in the IMD Competitiveness index, 9th in the Index of Economic Freedom and 14th in the WEF Global Competitiveness Index.

In contrast to the fall in Canada's DBI ranking over the 2007-2020 period, Canada's ranking in the other four indexes has remained stable.

Chart 5: Canada's Overall Ranking in Competitiveness and Economic Freedom Indices



Source: Compiled by the CSLS based on rankings presented in Table 8

This divergence between the DBI and the four other indexes needs to be explained. There are three possibilities. First, the stability of Canada's international competitiveness as captured by the four indexes is accurate and the deterioration reported by the DBI is inaccurate, reflecting data problems. Second, the stability of Canada's international competitiveness as captured by the four indexes is accurate and the deterioration reported by the DBI is also accurate for the pillars and indicators chosen, but these measures are not particularly important for competitiveness and for that reason not covered in the other four indexes. Third, the stability of Canada's international competitiveness as captured by the four indexes is inaccurate and the deterioration reported by the DBI is accurate. Given that four indexes point to stability in Canada's international competitiveness and only one to a deterioration, the likelihood of this third explanation is low. The report will later present the four indexes and discuss reasons for the divergence noted above.

IV. A Deep Dive into Canada's Performance on the Doing Business Index

This section of the report provides a detailed examination of or deep dive into the ten DBI pillars for Canada over the 2007-2020 period. The objective is to shed light on the reasons for Canada's 23rd ranking in 2020 and for the deterioration in the ranking from 4th in 2007. The pillars with the worst rankings in 2020 and the largest deterioration in ranking are key to the story and will receive the most attention.

This section is divided into seven sub-sections. The first provides an overview of the ranking of the pillars in 2020 and their trend over time. The second section examines briefly the six pillars that have an above average ranking and have not experienced a major deterioration in their ranking. The next four sub-sections look separately at the four specific pillars in which Canada ranked poorly in 2020. The final sub-section summarizes the findings.

A. Overview of Pillar Developments

Table 1 provides the annual time series of the rankings for Canada for the overall DBI and its ten pillars from 2007 to 2020.[10] Two observations can be made. First, while there are 10 pillars in every year, four of the original pillars were replaced over time,[11] with important implications for the consistency of the rankings and hence the meaningfulness of the trends. Second, the number of countries or economies covered by the ranking has increased slightly over time, from 175 in 2007 to 190 in 2020. However, this development has no effect on the absolute rankings for Canada as the countries added, all developing countries, are in the bottom half of the rankings.

Appendix 5 provides the annual time series of the scores and rankings for Canada for the overall DBI and its ten pillars from 2015 to 2020, the only period when the DBI is consistent over time as there were no changes in pillars during this period. Appendix 3 provides bar charts of

[10] The DBI can be expressed in absolute and relative terms. The absolute score is based on the distance function for the indicators discussed in the previous section. Unfortunately, both the indicators and the methodology for their construction must be constant for the scores to be consistent and hence meaningful over time. For the DBI this has only been the case since 2015 (See Appendix 5). A ranking can be calculated from the country scores for indicators based on any methodology and it captures that country's performance for that index based on the current set of indicators and their methodology. It that sense it is a meaningful number. The time series of ranking however may be less meaningful because of changes in the indicators and their definitions. It is important to track rankings since these rankings garners much attention and to determine whether rankings is consistent over time and hence meaningful.

[11] The dealing with licences pillar was replaced by the dealing with construction permits pillar in 2009. The employing workers pillar was dropped in 2010 and replaced in 2012 by the getting electricity pillar. The closing a business pilar was replaced by the resolving insolvency in 2012.The protecting investors pillar was replaced by the protecting minority investors pillar in 2015.

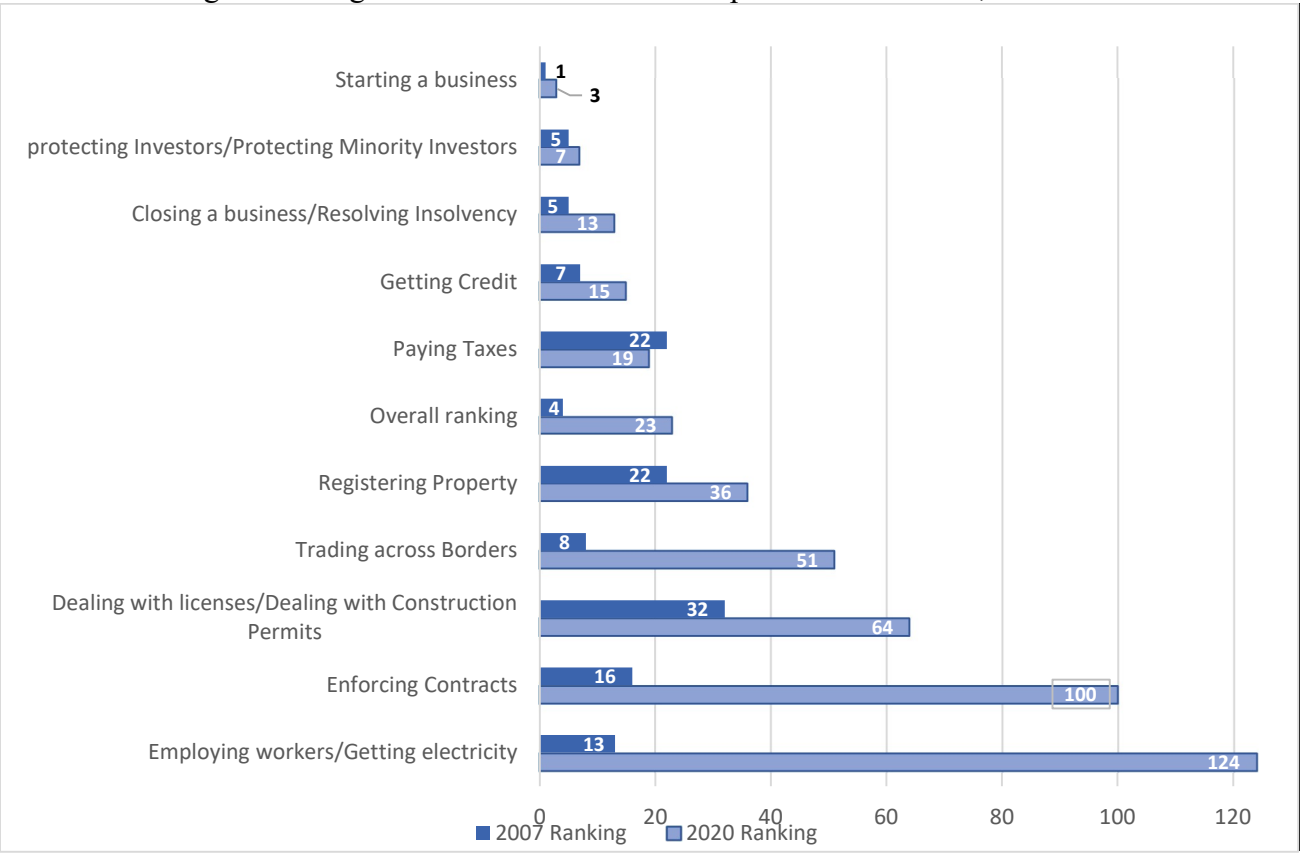
developments by year in all pillars from 2007 to 2020. Because of replacements, there were 14 different pillars over the period, with six pillars unchanged for all 14 years.

1. Pillars in 2020

Chart 6 gives the ranking and the scores for the overall DBI and the ten pillars for Canada in 2007 and 2020. Canada best performance in 2020 was in starting a business where the country ranked third. Canada also did well in protecting minority investors (7th), resolving insolvency (13th), getting credit (15th) and paying taxes (19th). The ranking for the other five pillars were worse than the overall 23rd ranking.

Canada's worst performance for the pillars was for getting electricity, where it placed 124th. This was followed by enforcing contracts at 100th, dealing with construction permits (64th), trading across borders (51st), and registering property (36th). The reasons for Canada's poor ranking on these pillars, particularly the four worst, need to be identified to explain Canada's overall ranking among developed countries.

Chart 6: Rankings for Doing Business Index and its Components for Canada, in 2007 and 2020



Source: https://www.doingbusiness.org/content/dam/doingBusiness/media/Annual-Reports/English/DB07-FullReport.pdf (2007), https://www.doingbusiness.org/content/dam/doingBusiness/country/c/canada/CAN.pdf (2020).

Table 1: Overall and Pillar Rankings of Doing Business Index for Canada, 2007-2020

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
	Ranking													
Overall	4	7	8	8	7	13	17	19	16	14	22	18	22	23
Starting a Business	1	2	2	2	3	3	3	2	2	3	2	2	3	3
Dealing with licenses	32	26	N/A											
Dealing with Construction Permits	N/A		29	29	29	25	69	116	118	53	57	54	63	64
Employing workers	13	19	18	17	N/A									
Getting electricity	N/A					156	152	145	150	105	108	105	121	124
Registering Property	22	28	32	35	37	41	54	55	55	42	43	33	34	36
Getting Credit	7	7	28	30	32	24	23	28	7	7	7	12	12	15
Protecting investors	5	5	5	5	5	5	4	4	N/A					
Protecting Minority Investors	N/A								7	6	7	8	11	7
Paying Taxes	22	25	28	28	10	8	8	8	9	9	17	16	19	19
Trading across Borders	8	39	44	38	41	42	44	45	23	44	46	46	50	51
Enforcing Contracts	16	43	58	58	58	59	62	58	65	49	112	114	96	100
Closing a business	5	4	4	4	3	N/A								
Resolving Insolvency	N/A					3	4	9	6	16	15	11	13	13
Nbr. of Economies	175 economies	178 economies	181 economies	183 economies			185 economies	189 economies			190 economies			

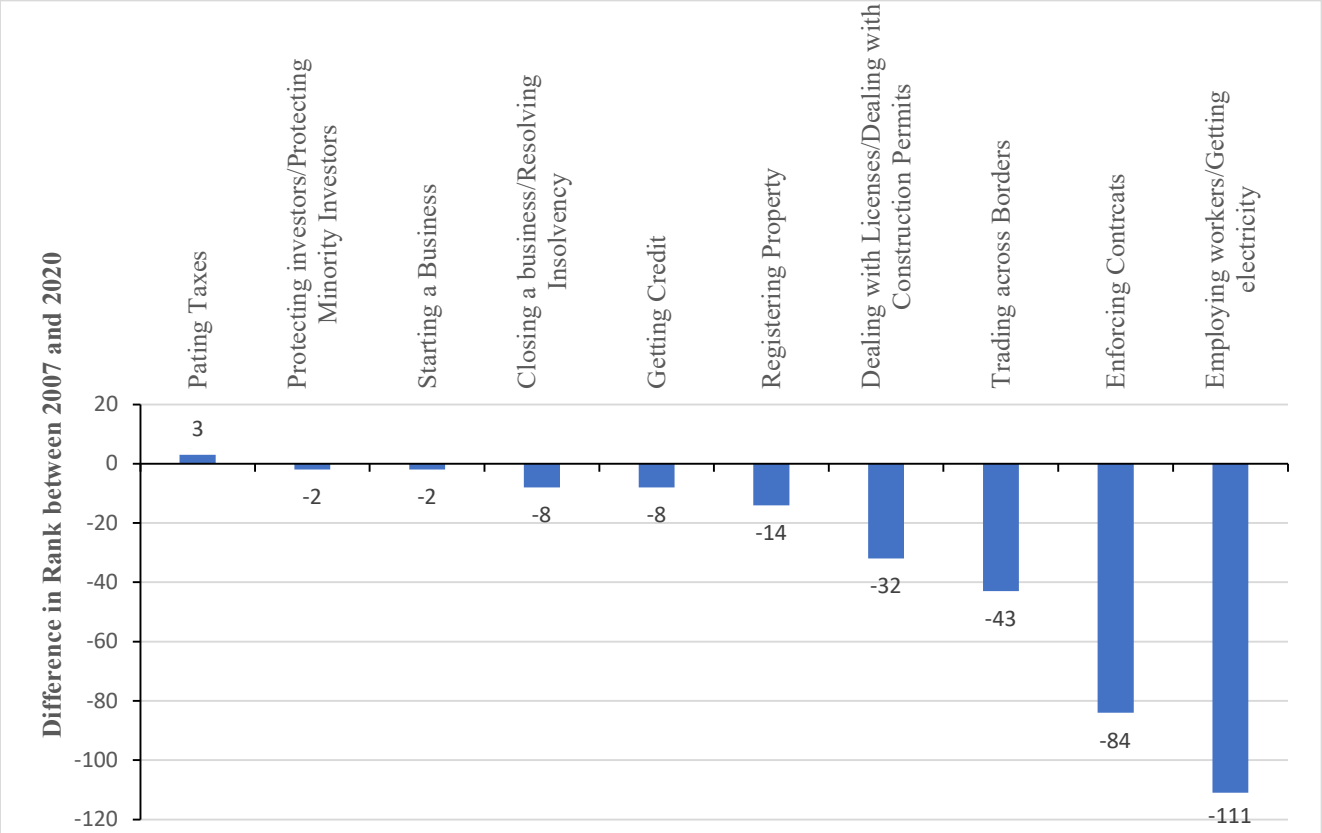
Source: https://www.doingbusiness.org/en/reports/global-reports/doing-business-2020

Note 1: "Dealing with licenses" was replaced in 2009 by "Dealing with construction permits".

Note 2: There weren't available data for "Employing workers" in 2011 and in 2012 another indicator was introduced "Getting electricity". "Closing a business" was replaced in 2012 by "Resolving insolvency".

Note 3: "Protecting investors" was replaced in 2015 by "Protecting minority investors"

Chart 7: Change in Rankings for the Pillars of the Doing Business Index for Canada between 2007 and 2020



Source:https://www.doingbusiness.org/content/dam/doingBusiness/media/Annual-Reports/English/DB07-FullReport.pdf(2007),https://www.doingbusiness.org/content/dam/doingBusiness/country/c/canada/CAN.pdf (2020).

2. Changes in Pillar Rankings

Before examining changes in the rankings of the pillars between 2007 and 2020, it should be noted that the names of three of the original ten pillars were altered, although the issue addressed remained largely the same. These pillars were dealing with licences, which was replaced by dealing with construction permits in 2009, protecting investors, which was replaced by protecting minority investors in 2015, and closing a business which was replaced by resolving insolvency in 2012. In all three cases the ranking of the newly named pillar in the first year was almost identical to the ranking of the pillar before the name change. In other words, the changes in the names in these pillars appears to have had no effect in rankings of the pillars.

Additionally, one pillar was dropped and replaced by a completely different pillar. Employing workers was dropped as a DBI pillar in 2010. It was replaced in 2012 with the new, completely unrelated pillar getting electricity. In 2010, Canada ranked 17th for employing

workers. When the getting electricity, pillar was introduced in 2012, Canada ranked 155th. This move to a pillar in which Canada ranked much lower had a negative impact on Canada's overall DBI rank. This impact will be discussed further later in the report.

Given Canada's overall fourth place DBI ranking in 2007, it is not surprising that for most pillars Canada's ranking was much better than in 2020. Starting a business performed best, with Canada in first place. The second-best performance (5th) was achieved by closing a business and protecting investors. Next came getting credit (7th) followed by trading across borders (8th), employing workers (13th), enforcing contracts (16th), and registering property and paying taxes, ranked 22nd. In last place, with a 32nd ranking, was dealing with licenses. In 2020, five of the ten pillars had lower rankings than the lowest ranked pillar in 2007.

Nine of the 10 pillars saw a deterioration in their ranking between 2007 and 2020 (Chart 7). The exception was paying taxes where Canada improved from 22nd to 19th place. The largest deterioration in ranking was for the employing workers/getting electricity pillar, dropping 111 places from 13th to 124th. This was followed by the enforcing contracts pillar, down 84 places from 16th to 100th and the trading across borders pillar, down 43 places from 8th to 51st. The dealing with construction permits pillar also dropped considerably, down 32 places from 32nd to 64th. The five other pillars all had much smaller deteriorations in their ranking, all with drops of less than 15 placements in the rankings.

In other words, four pillars can be identified as largely responsible for pulling down Canada's DBI ranking: trading across borders, getting electricity, dealing with construction permits and enforcing contracts. To understand the overall DBI deterioration one must explain developments for these four pillars.

B. Pillars with Average or Above Average Rankings and Limited Deterioration

Before the deep dive on the four indicators that are largely behind Canada's current DBI ranking and the deterioration in these rankings since 2007, this sub-section briefly discusses the state of the other six DBI pillars. This provides insight into where Canada performs well. The discussion is ordered by the ranking, starting with the highest ranked pillar. This ordering principle is also used for the four pillars with the worse rankings.

1. Starting a business

Canada's highest ranked pillar is starting a business. In 2020, Canada ranked third out of 190 countries on this pillar, down slightly from first in 2007. Canada placed no worse than third in any year over the 2007-2020 period. Canada has performed consistently well over time on all four indicators in this pillar (Appendix 4, Panel A). The number of procedures required to start a

business in 2020 was only two, the same as in 2007. The number of days needed to start a business was 1.5 days, down from 3 days in 2007.The cost of starting a business was only 0.3 per cent of income per capita, down from 0.9 per cent in 2007. The minimum capital needed to start a business was zero, unchanged from 2007.

Canada has improved its absolute performance on two of the four starting business indicators between 2007 and 2020 and remained unchanged in the other two indicators. The very small slippage in relative terms, as indicated by the move from first to third place, reflects the even better performance of the top two countries in 2020 (New Zealand and Georgia). The bottom line is that Canada is an excellent location for the ease of starting a business.

2. Protecting minority investors

Canada consistently performs well in the protecting investors pillar (called the protecting minority investors after 2015). In 2020, Canada ranked 7th, down slightly from 5th in 2007. In terms of the six indicators for this pillar, Canada scored particularly high on the extent of director liability index (9 out of 10), the ease of shareholder suits index (9 out of 10), the extent of ownership and control index (6 out of 7), and the extent of corporate transparency index (6 out of 7). Canada did slightly less well on the extent of disclosures index (8 out of 10) and the extent of shareholders rights index (6 out of 7). From the perspective of protection of minority investors, Canada is an attractive place to do business.

3. Resolving insolvency

Canada does fairly well in the resolving insolvency pillar (called closing a business before 2015 when it had two fewer indicators). In 2020, Canada ranked 15th, up from 5th in 2007. The pillar has five indicators. It took 0.8 years to resolve an insolvency in 2020 and this time duration has remained unchanged since 2007. The cost of resolving insolvency is 7 per cent of the value of the estate, up from 4 per cent in 2007. The recovery rate is 86.7 cents on the dollar, down slightly from 89.3 cents in 2007. The strength of the insolvency framework index is 11.0 (on a scale from 1 to 16), down from 13.5 in 2015, the first year this indicator was part of the pillar. The fifth indicator, also introduced in 2015, is the outcome indicator. It has a value of 0 if the insolvency results in a piecemeal sale and a value of 1 if the outcome results in a continuing business. On this indicator, Canada has a value of 1.

The small fall in the pillar's ranking is explained by the decline in three of the five indicators of the pillar with the other two unchanged. Despite this slight deterioration in ranking, the ease of resolving insolvencies in Canada is relatively high.

4. Getting Credit

Canada also does well in getting credit, ranking 15th in 2020, up from 7th in 2007. Canada does extremely well in the depth of credit information index scoring 8 out of 8. It also does extremely well in the proportion of the adults with credit bureau coverage, at 100 per cent or full coverage. On the other hand, it does less well in the strength of legal rights index, scoring 9 out of 12. Canada also has no public registry coverage of adults. None of the five indicators in the getting credit pillar appears to have fallen in absolute terms over the 2007-2020 period so the fall in ranking must reflect improvement in the performance in other countries. Despite this decline in ranking, Canada remains a country where the ease of getting credit is fairly high.

5. Paying Taxes

Canada's ranking on the paying taxes pillar at 19th in 2020 is somewhat better than the overall DBI ranking of 23rd. This pillar was the only one of the 10 DBI pillars whose ranking improved between 2007 and 2020. Indeed, in 2007, the pillar paying taxes had the second worst ranking at 22nd place among the ten pillars. In 2020, it had the fifth best ranking. This turnaround reflected more the deterioration of the ranking of other pillars than the improvement in the ranking of the paying taxes pillar.

The paying taxes pillar has five indicators. In 2020, the number of procedures for making tax payments in Canada was 8, down from 10 in 2007. The number of hours per year needed for business to pay taxes was 131, up from 119 in 2007. The total business tax rate in 2020 was 24.5 per cent, down substantially from 43.0 per cent in 2007. In 2017, a fourth indicator was added to the paying taxes pillar, the post-filing index from 0 to 100. This index measures the regulatory best practices of the indicator. Canada does relatively poorly on this metric as its introduction in 2017 reduced Canada's ranking for the paying taxes pillar from 9th to 17th place (the other indicators were identical in both years).

While there are areas for improvement, Canada performs adequately on the paying taxes pillar. Canada is the top decile in the countries of the world for ease of paying taxes.

6. Registering property

Canada does not do particularly well on the registering property pillar. In 2020, Canada ranked 36th, down from 22nd in 2007. The deterioration was due to the doubling of the cost of registering property, from 1.7 per cent of the property value in 2007 to 3.8 per cent in 2020. The other three indicators in this pillar fell over time in absolute terms. The number of procedures for registering property dropped from 6 in 2007 to 5 in 2020. The number of days needed to register a business property fell from 10 to 4 between 2007 and 2020. In 2016, a fourth indicator was

introduced to this pillar, the quality of land administration index (from 0 to 30). In 2016, Canada's score on this index was 21.5. Canada's ranking on the pillar in 2016 improved to 42nd place from 55th in 2015. As the values of the other three indicators were identical in 2015 and 2016, the introduction of this indicator was behind the improved ranking.

Canada's performance on this pillar is not particularly impressive. Its ranking at 36th place is worse than Canada's 23rd overall DBI ranking. The pillar ranking fell 14 places between 2007 and 2020. However, we have not included this pillar among the ones to receive detailed analysis because four other pillars did much worse, both in terms of their 2020 ranking and their deterioration in ranking between 2007 and 2020.

The following sub-sections looks at developments for the four worst performing pillars: trading across borders, dealing with construction permits, enforcing contracts, and getting electricity.

C. Trading across borders

This sub-section sheds light on the reasons for the deterioration of the ranking of the trading across borders pillar for Canada from 8th place in 2007 to 51st place in 2020. The methodology for the pillar is presented first, followed by an examination of trends in the indicators that make up the pillar.

1. Methodology

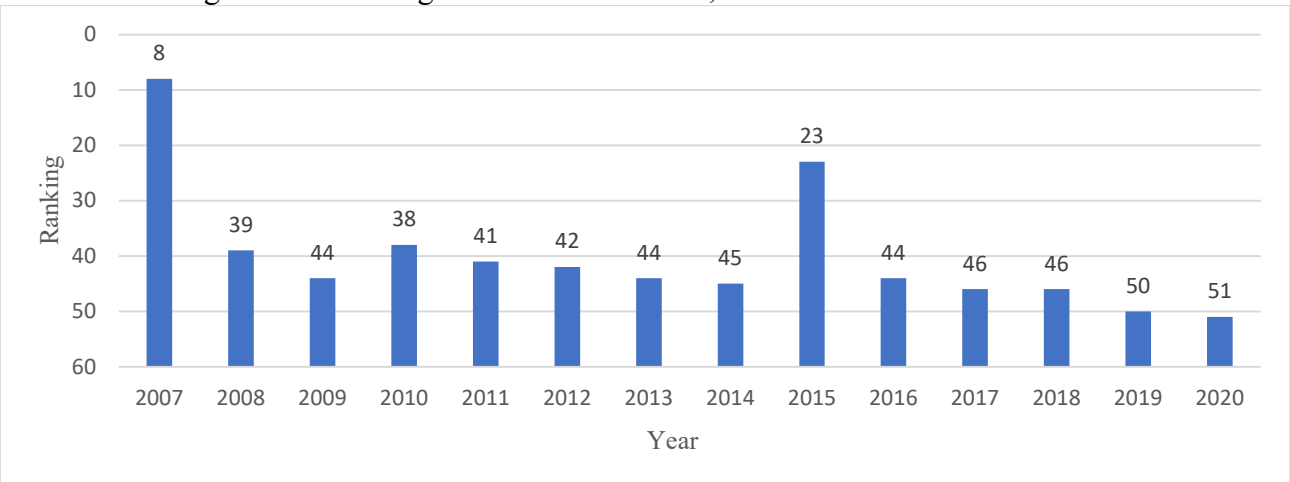
The indicators that comprise the trading across borders pillar from 2007 to 2015 were documents, time, and cost of exporting and importing, as shown in Table 2. Documents are all the necessary paperwork (e.g., bank documents, customs declaration and clearance documents etc.) for trading activities. The time for exporting and importing is recorded in calendar days. If a procedure can be completed more quickly, then the legally fastest way is chosen and if several procedures can be completed in parallel, then the time needed for each procedure is not cumulated. The cost includes the fees levied on a 20-foot container in U.S. dollars, but does not include the tariffs or trade taxes. Signatures were defined as an approval, signature or stamp from all levels that concludes one or more procedures. Electronic signatures were valid.

In 2016, the variables that compose the trading across border pillar of the DBI were modified. The new variables are the time and cost of documentary compliance and border compliance for export and import, except in 2016 there was also a variable entitled "domestic transport" for the time and cost of these international exchange activities. The documentary compliance includes the obtaining, preparation and submission of documents concerning transport, clearance, inspections, port or border handling in the economy where the exchange takes place, as well as the documents requested by the country with which the business is concluded. Border

compliance refers to customs clearances and inspections by other agencies (applied if more than 20 per cent of the goods are inspected) and handling and inspections that take place at the economy's port of border.

Equal weighting is assigned to the different components of the pillar. For example, for trading across borders in 2007-2015, a weight of one third was assigned for the documents to export and import (all documents to export and import), one third for the time to export and import (document preparation, customs clearance and inspections, port and terminal handling, inland transport and handling) and one third for the cost to export and import (US$ per 20-foot container, no bribes or tariffs included). In 2016-2020, a weight of one quarter was assigned to each of the four indicators: export time, export cost, import time and import cost.

Chart 8: Rankings for the Trading across Borders Pillar, 2007-2020



Source: The World Bank's reports for DB.

2. Trends in the Indicators

Chart 8 provides rankings for the trading across borders pillar by year for the 2007-2020 period. Panel A of Table 2 gives the absolute values for the six indicators for the trading across borders pillar for five years for the 2007-2015 period and the 2016-2020 period and as well provides Canada's ranking for each indicator.[12]

Between 2007 and 2020, Canada's rank in the trading across border pillar deteriorated from 8th to 51st position. Between 2007 and 2009, there was a very large change in the ranking from 8th to the 44th. Between 2014 and 2015, the ranking fell from 45th to 23rd and then rebounded to 44th in 2016. This appears to be a typographic error in the World Bank database as the values of

[12] Appendix 1 gives the best (frontier) and worse values among all economies covered by the DBI for all indicators in the trading across borders pillar for selected years from 2007 to 2020

the indicators and their ranking in 2015 are virtually identical to those in 2014. Between 2016 and 2020, the ranking deteriorated slightly from 44th to 51st. Consequently, to explain the fall in the ranking, we must shed light on the factors behind the large change in ranking between 2007 and 2009.

The numbers of documents Canadian businesses need to obtain to export goods was unchanged at 3 between 2007 and 2015. Canada ranked extremely high on this indicator, between first and third in the world over the 2007-2015 period. The number of documents Canadian businesses need to import was also stable over the 2015-2020 period at 3 or 4. Again, Canada scored very high on this indicator, ranking third to sixth in the world.

The numbers of days Canadian businesses need to export was also virtually unchanged between 2007 and 2015, falling from four to three. Canada ranked high on this indicator, ranking either 8th or 9th in the world over the period. The number of days Canadian businesses need to import was also stable over the period, but higher than for exporting, at 10-11 days. Canada's ranking on this indicator was less impressive, falling from 14th to 32nd. As the number of days needed for importation in Canada was the same in 2007 and 2017 at 10 days, the deterioration in the ranking must have meant that other countries moved to less than 10 days.

The fall in Canada's ranking in the trading across borders pillar between 2007 and 2015 consequently was not linked to negative developments related to the number of documents to export and import and the days needed to export and import.

The cost for a Canadian business to export a container to the US border rose from $700 US in 2007 to $1,660 USD in 2009 and remained unchanged to 2015. This represents a massive increase and results in Canada falling from 40th to 138th in the world for the cost to export indicator. Whether this development reflects true cost developments will be examined shortly.

The cost for a Canadian business to import a container from the US border rose from $850 US in 2007 to $1,785 in 2009 and remained relatively stable to 2015. Again, this represents a massive increase and resulted in Canada falling from 50th to 137th in the world for the cost to import indicator. The accuracy of this development will be discussed shortly.

The indicators for the trading across borders pillar changed starting in 2016, as shown in Panel B of Table 2. The new indicators are documentary and border compliance in hours and documentary and border compliance in US dollars for both exports and imports.

As was the case with the earlier indicators (2007-2015), Canada does very well on the time needed for both documentary[13] and border[14] compliance procedures for both exporting and importing and very poor in terms of costs. In 2020, only 1 hour was needed for documentary compliance and 2 hours for border compliance for both exporting and importing. Canada ranked first in the world for documentary compliance for both exporting and importing, 20th for border compliance for exporting and 26th for border compliance for importing.

In 2020, the cost for exporting was $156 US for documentary compliance and $167 US for border compliance. Canada ranked 141st in the world for the former and 54th for the latter. The cost for importing was $163 US for documentary compliance and $172 for border compliance in 2020. Canada ranked 132nd in the world for the former and 49th for the latter.

Canada's ranking for trading across borders fell from 44th in 2016 to 51st in 2020. Yet all absolute values for the eight indicators were unchanged between 2016 and 2020. Six of the eight rankings were also unchanged or virtually unchanged. The exceptions were the cost of documentary compliance, which rose from a ranking of 118th in 2016 to 141st in 2020 for exporting and from 117th to 132nd for importing over the same period. This means that the deterioration in the trading across borders pillar ranking between 2016 and 2020 was not due to higher costs or greater administrative burden in an absolute sense, but to other countries lowering their costs and moving ahead of Canada.

Table 2 C shows how Canada compares in absolute terms to the average for OECD high income countries for the indicators in the trading across borders pillar in 2020, and as well gives the best regulatory performance and the number of economies with this performance. Not surprisingly given the ranking discussed above, Canada greatly outperforms the average for the time for exporting and importing, particularly for the cost of border compliance and underperforms for cost, especially related to importing. One notes that 19-20 economies impose no cost for border and documentary compliance to export and even more economies (28-30) impose no cost for border and documentary compliance to import.

[13] Documentary compliance measures the time in hours and cost associated with the logistical process needed to obtain, preparer and submit documents during transport, inspections and port or border handling in origin economy and to obtain prepare and submit documents required by destination economy and any transit economies. This covers all documents required by law and in practice, including electronic submissions of information. Costs include insurance costs and informal payments and ae reported in US dollars at prevailing exchange rates.

[14] Border compliance measures the time in hours and cost associated with the logistical processes related customs clearance and inspections, inspections by other agencies, and handling and inspections that take place at the economy's port or border.

Table 2: Trading Across Borders Pillar

Panel A: Canada's Overall Ranking and Absolute Values for each Indicator of the Pillar 2007-2015

	2007	2008	2009	2010	2011	2012	2013	2014	2015
Overall ranking	8	39	44	38	41	42	44	45	23
Absolute Values by Indicator									
Exports									
Documents to export (number)	3	3	3	3	3	3	3	3	3
Time to export (days)	7	7	7	7	7	7	7	8	8
Cost to export (US$ per container)	700	1,385	1,660	1,610	1,610	1,610	1,610	1,680	1,680
Imports									
Documents to import (number)	4	4	4	4	4	4	4	3	3
Time to import (days)	10	11	11	11	11	11	11	10	10
Cost to import (US$ per container)	850	1,425	1,785	1,660	1,660	1,660	1,660	1,680	1,680
Ranking by Indicator									
Exports									
	2007	2008	2009	2010	2011	2012	2013	2014	2015
Documents to export	2	1	2	2	2	2	2	3	3
Time to export	8	8	8	8	8	8	7	9	9
Cost to export	40	130	138	140	138	139	141	142	142
Imports									
Documents to import	6	3	5	6	6	5	6	3	3
Time to import	14	20	22	25	27	28	35	30	32
Cost to import	50	122	137	125	127	124	126	125	127

Source: Ease of Doing Business Index Reports

Note: In order to find Canada's positions, we ranked the countries from the smallest absolute value to the largest and if many countries had the same absolute value, we considered them all on the same position.

Canada's Overall Ranking and Absolute Values for each Indicator of the Pillar 2016-2020

		2016	2017	2018	2019	2020
Overall ranking		44	46	46	50	51
Absolute Values by Indicator						
Time to export	Documentary compliance (hours)	1	1	1	1	1
	Border compliance (hours)	2	2	2	2	2
Cost to export	Documentary compliance (US $)	156	156	156	156	156
	Border compliance (US $)	167	167	167	167	167
Time to import	Documentary compliance (hours)	1	1	1	1	1
	Border compliance (hours)	2	2	2	2	2
Cost to import	Documentary compliance (US $)	163	163	163	163	163
	Border compliance (US $)	172	172	172	172	172
Ranking by Indicator						
		2016	2017	2018	2019	2020
Time to export	Documentary compliance (hours)	2	1	1	1	1
	Border compliance (hours)	20	20	20	21	20
Cost to export	Documentary compliance (US $)	118	133	139	141	141
	Border compliance (US $)	50	50	51	52	54
Time to import	Documentary compliance (hours)	1	1	1	1	1
	Border compliance (hours)	27	27	27	27	26
Cost to import	Documentary compliance (US $)	117	123	126	131	132
	Border compliance (US $)	49	47	47	48	49

Source: Ease of Doing Business Index Reports and CSLS calculations

Note: In order to find Canada's positions, we ranked the countries from the smallest absolute value to the largest and if many countries had the same absolute value, we considered them all on the same position. Note ranking methodology changed between 2015-2016.

Panel B: Frontier and worst performance for the Trading Across Borders Indicators, 2007-2009, 2015, and 2020

	2007		2008		2009		2015	
	Frontier	Worst Performance	Frontier	Worst Performance	Frontier	Worst Performance	Frontier	Worst Performance
Documents to export (number)	2	16	3	13	2	13	2	11[c]
Time to export (days)	3	105	5	102	5	102	6	54[b]
Cost to export (US$ per container)	265	4,300	390	4,867	450	5,367	410	5,000[b]
Documents to import (number)	2	20	3	18	2	18	2	15[c]
Time to export (days)	3	139	3	104	3	104	4	66[b]
Cost to import (US$ per container)	333	4,565	367	5,520	439	6,020	368.4	6,000[b]

2020		
	Frontier	Worst Performance
Documentary compliance (hours)	1[a]	170[b]
Border compliance (hours)	1[a]	160[b]
Documentary compliance (US$)	0	400[b]
Border compliance (US$)	0	1,060[b]
Documentary compliance (hours)	1[a]	240[b]
Border compliance (hours)	1[a]	280[b]
Documentary compliance (US$	0	700[b]
Border compliance (US$)	0	1,200[b]

Source: The World Bank's DB reports

Notes:

a. Defined as 1 hour even though in many economies the time is less.

b. Worst performance is defined as the 95th percentile among all economies in the Doing Business sample.

c. Worst performance is defined as the 99th percentile among all economies in the Doing Business sample.

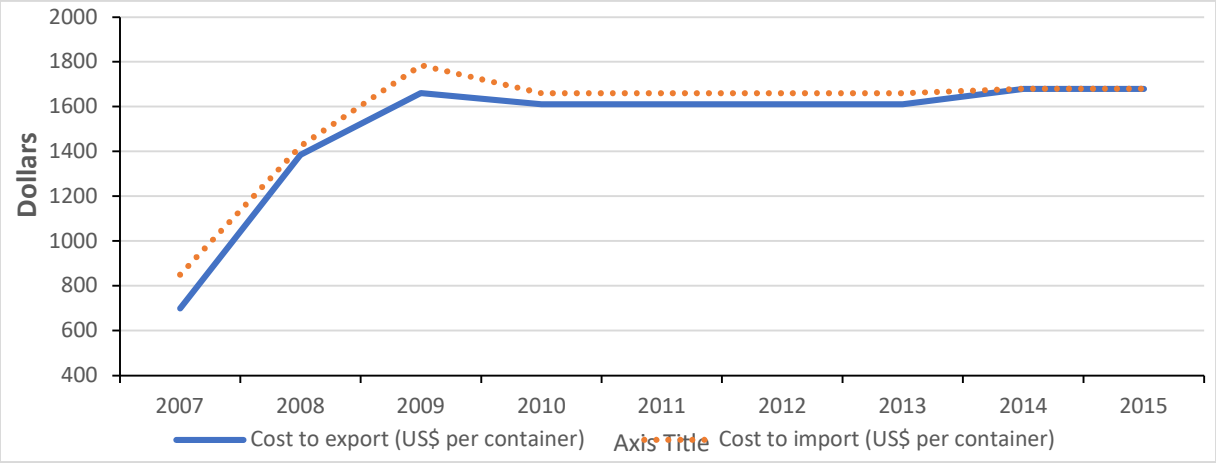
Panel C: Canada's performance on the Trading Across Borders Indicators relative to OECD high income countries and the best performance, 2020

Indicator	Canada	OECD high income	Best Regulatory Performance
Time to export: Border compliance (hours)	2	12.7	1 (19 Economies)
Cost to export: Border compliance (USD)	167	136.8	0 (19 Economies)
Time to export: Documentary compliance (hours)	1	2.3	1 (26 Economies)
Cost to export: Documentary compliance (USD)	156	33.4	0 (20 Economies)
Time to import: Border compliance (hours)	2	8.5	1 (25 Economies)
Cost to import: Border compliance (USD)	172	98.1	0 (28 Economies)
Time to import: Documentary compliance (hours)	1	3.4	1 (30 Economies)
Cost to import: Documentary compliance (USD)	163	23.5	0 (30 Economies)

Source: The World Bank Report, 2020.

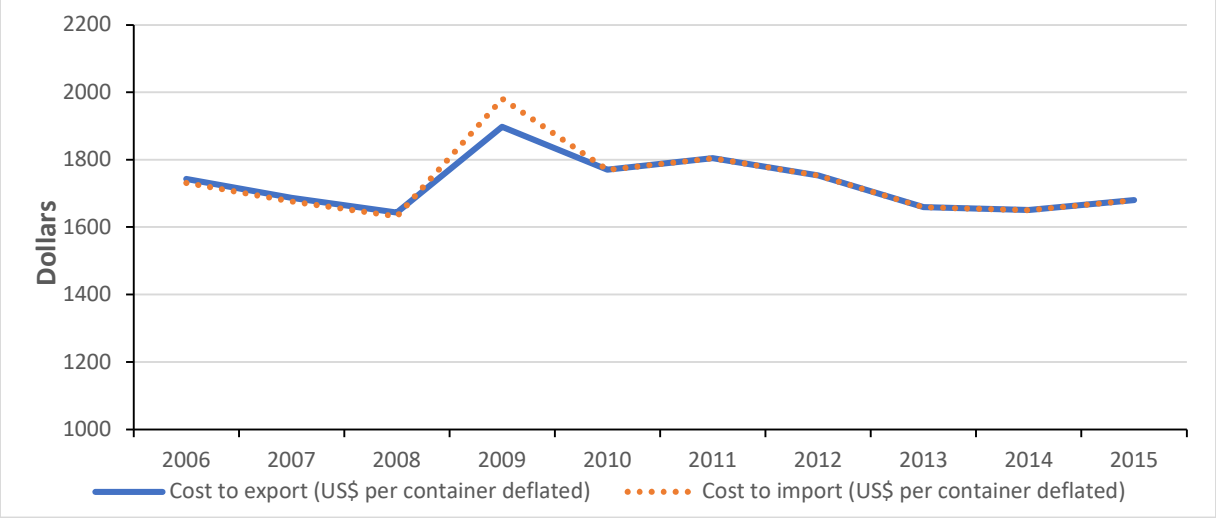
Chart 9: Cost to Export and Import for Canada

Panel A: Data from DB's Reports



Source: The World Bank's reports for DB

Panel B: Data from DB's Website



Source: The World Bank (https://www.doingbusiness.org/en/custom-query)
Note from the web-site: "To provide a comparable time series for research, the dataset is back-calculated to adjust for any revisions in data due to corrections. Each change in methodology is back calculated for one year to provide comparable data for the previous year. For this reason, the historical data published on this webpage may be different from the data published in their respective *Doing Business* reports".

3. Did Transport Costs Double between 2007 and 2009?

The analysis has revealed that the key reason that Canada has seen a fall in its ranking for the trading across borders pillar over the 2007-2020 period was the result of the more than doubling of the transport cost to export and import between 2007 and 2009. We will now look at this development.

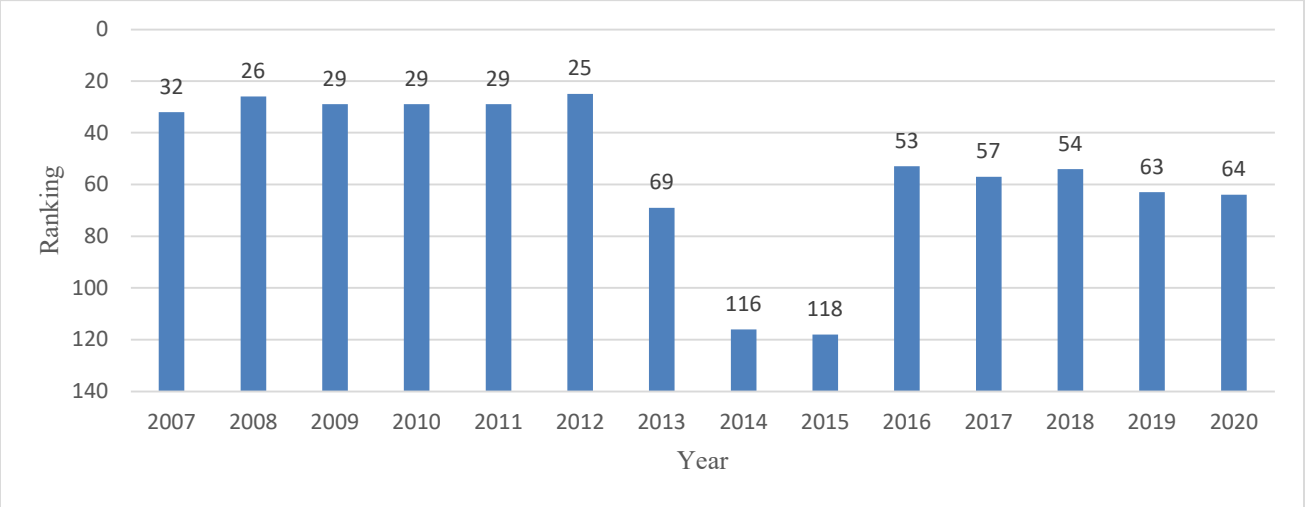
The rise in the cost of importing and exporting between 2007 and 2009 in the World Bank's estimates of the indicators for the trading across border pillar in the DB report for Canada (Chart 9, Panel A) is very puzzling. Indeed, it is inconsistent with trends in this indicator reported in the DB database on the World Bank website, which shows no major change in the cost of exporting and importing in Canada between 2007 and 2009 (Chart 9, Panel B). The absolute cost of exporting and importing was about the same in both charts in 2009 at around $1,800 US.

The more than doubling of the cost of exporting and importing in Canada between 2007 and 2009, as shown in the trading across borders pillar of the DBI for Canada, appears inconsistent with overall price developments in the country at the time. The GDP deflator rose only 4 per cent from 2007 to 2009 (Statistics Canada, Table: 36-10-0223-01). Thus, it seems extremely unlikely that trade costs could more than double in this period of relative general price stability. In addition, during the financial crisis over the 2007-2009 period, the cost of transport fell sharply. The most likely explanation for the inconsistency in the two price trends appears to be data error. This means that the large increase in trading costs between 2007 and 2019 in the DBI estimates for Canada is a data error and that the DB database captures the true development, namely stability.

The upshot of this analysis is that it is likely the cost of exporting and importing in Canada in 2007 given in the DBI report is incorrect. This means that Canada's ranking on the cost of exporting and importing indicators and consequently the overall trading across borders pillar in 2007 should have been worse. This would mean that Canada's ranking on the trading across borders pillar likely did not deteriorate between 2007 and 2009.[15]

D. Dealing with Construction Permits

Chart 10: Dealing with Licenses (until 2009), Dealing with Construction Permits (since 2009)



Source: The World Bank's reports for DB

Canada's ranking in the dealing with licenses/dealing with construction permits pillar also dropped considerably between 2007 and 2020, down 32 places from 32nd to 64th. In 2009, the dealing with licenses pillar was changed to the dealing with construction permits. This change appears to have had no effect on the overall ranking of the pillar, which was 32nd in 2007 and 29th in 2009. This analysis will focus on the post-2009 period.

[15] This analysis of the details of the trading across borders pillar has raised a number of issues that may merit further investigations. These issues include the following. 1) Are the prices shown for export and import costs expressed in constant or current dollars; 2) One observes that the values for all indicators for the trading across borders pillar are identical from 2010 to 2013 and from 2016 to 2020. What is the reason for this?3) The distance between a country's border and the city chosen for the DBI vary by country How is this factored into the cost of importing and exporting which is linked to distance? 4) What was the change in methodology or definitions that produced the time needed to export from 8 days in 2015 to 3 hours in 2016?

The ranking of the construction permits pillar has varied considerably over the 2009-2020 period, rising from 29th in 2009 to a peak of 18th in 2015 before falling to 64th in 2020 (Chart 10 and Table 3).

The number of indicators that make up the construction permits pillar has changed over time. From 2009 to 2014 there were three indicators: number of procedures for a business to obtain a construction permit to build a warehouse, days needed to obtain the permit, and cost, as measured by per cent of income per capita. In 2015, this cost indicator was dropped and replaced by a cost indicator based on the per cent of the value of the warehouse. In 2017, a fourth indicator was added, building quality, measured by an index from 0 to 15. The introduction of the fourth indicator had a major effect on Canada's ranking on the pillar.

The number of procedures[16] needed for a business to obtain a construction permit to build a warehouse in Canada (Toronto) has been falling gradually over time. It was 14 each year from 2009 to 2011, falling to 13 in 2013 and 2014 and then falling to 12 in 2015 and remaining at this number until 2020. The world's best practice for number of procedures is five and the worst performance is 30. Canada is fortunately closer to best than worse practice. Even with the fall in the number of procedures from 14 to 13 between 2009 and 2014, Canada's ranking on this indicator deteriorated from 48th to 73rd. The ranking did subsequently improve between 2015 and 2020 and by 2020 Canada ranked 41st overall.

The number of days to obtain a construction permit to construct a warehouse has massively increased over time in Canada (Toronto).[17] In the 2007-2012 period it took 75 days to obtain a construction permit. In 2013, this jumped to 163 days and in 2014 to 249 days where it remained until 2020. The world's best practice for number of days to obtain a permit is 26 days and the worst performance is 373 days. Canada's ranking in this indicator dropped from 15th in 2007 to 160th in 2014. The very large increase in this indicator between 2012 and 2014 had a major impact on Canada's ranking for the construction permits pillar, which fell from 25th in 2012 to 116th in 2014. Such a large increase in the number of days needed to obtain a construction permit seems strange. This development needs a proper explanation and should be investigated with experts in the area.

The 2020 Doing Business Report for Canada provides a breakdown of the 249 days for each of the 12 procedures. By far the most time-consuming procedure, requiring 180 days or nearing three quarters of the time, is to obtain site plan approval from the Toronto Municipal

[16] The number of procedures to legally build a warehouse includes the following: 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; and registering and selling the warehouse after its completion.

[1717] The time required to complete each procedure in calendar days does not include time spent gathering information, requires each procedure to start on a separate day, does not consider the procedure complete until a final document is received, and assume no prior contact with officials.

Authority. The World Bank notes that a City councillor may become involved in the review of the site plan and community consultation may be requested by the planner. The process can take from 3 to 9 months depending on the complexity of the site plan, political interests, and the number of revisions to meet the city's requirements.

The cost, which is the official cost only (excluding bribes), for a business to obtain a construction permit to construct a warehouse was 103.7 per cent of per capita income in 2007 in Canada (Toronto). The cost fell over time and by 2014, the last year this indicator was included in the construction permits pillar, was 61.0 per cent. Despite this reduction in cost, Canada's ranking for this indicator did not see improvements, deteriorating from 68th in 2009 to 70th in 2014.

In 2015, a new cost indicator was introduced to replace cost of a proportion of per capita income, namely the cost of obtaining a construction permit for a warehouse as a share of the value of the warehouse. This includes attorney fees, court costs and enforcement of judgment. The value for this indicator was 1.3 per cent in the 2015-2017 period, rising to 1.8 per cent in 2020. The world's best practice for cost of obtaining a permit to construct a warehouse was zero per cent of the value of the warehouse and the worst performance was 20 per cent. Despite the rising cost between 2015 and 2020, Canada's ranking on this pillar improved, falling from 82nd to 73rd. As the relative ranking of the two cost measures were similar, the move to the new definition of cost in 2015 had no major effect on the ranking of the overall.

In 2016, a new indicator was added to the construction permits pillar, a building quality control index. The values of the index ranged from 0 to 15.[18] Canada did very well in absolute terms on this measure, with a value of 14 in all years from 2016 to 2020. In relative terms, Canada's performance was also impressive. Canada ranked 2nd in 2016, dropping slightly to 8th in 2020 as several other countries moved to an index value of 15. The addition of this indicator to the construction permits pillar in 2016 significantly improved Canada's ranking from 118th in 2015 to 53rd in 2016. Again, this illustrates the importance of the choice of indicators for the ranking, which in many ways is arbitrary.

[18] The building quality control index (0-15) contains six components: quality of building regulation (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); and professional certifications.

Table 3: Dealing with Construction Permits Pillar
Panel A: Overall Ranking and Absolute Value for each Indicator of the Pillar, 2009-2020

Overall Ranking and Absolute Values by Indicator												
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Rank	29	29	29	25	69	116	118	53	57	54	63	64
Procedures (number)	14	14	14	12	13	13	12	12	12	12	12	12
Time (days)	75	75	75	73	163	249	249	249	249	249	249	249
Cost (% of income per capita)	103.7	100.7	101.0	57.5	64.1	61.0	N/A					
Cost (% of warehouse value)	N/A						1.3	1.3	1.3	1.9	1.8	1.8
Building quality control index (0-15)	N/A							14.0	14.0	14.0	14.0	14.0
Ranking by Indicator												
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Procedures (number)	48	47	47	48	69	73	72	57	51	44	44	41
Time (days)	15	18	18	17	97	160	167	163	169	167	167	168
Cost (% of income per capita)	68	71	69	65	70	70	N/A					
Cost (% of warehouse value)	N/A						82	81	75	78	77	73
Building quality control index (0-15)	N/A							2	3	4	4	8

Source: World Bank, Doing Business Reports
Note: In order to find Canada's positions, we ranked the countries from the smallest absolute value to the largest (except for the building quality control index) and if many countries had the same absolute value, we considered them all on the same position.

Panel B: Frontier and worst performance on the Dealing with Construction Permits Indicators, 2015-2016

	2015		2016	
	Frontier	Worst Performance	Frontier	Worst Performance
Procedures (number)	5	30[c]	5	30[c]
Time (days)	26	373[b]	26	373[b]
Cost (% of warehouse value)	0.0	20.0[b]	0.0	20.0[b]
Building quality control index (0-15)	N/A		15	0[d]

Source: World Bank, Doing Business Reports

Notes:

b. Worst performance is defined as the 95th percentile among all economies in the Doing Business sample.

c. Worst performance is defined as the 99th percentile among all economies in the Doing Business sample.

d. Worst performance is the worst value recorded.

Panel C: Canada's performance on the Dealing with Construction Permits Indicators relative to OECD high income countries and the best performance, 2020

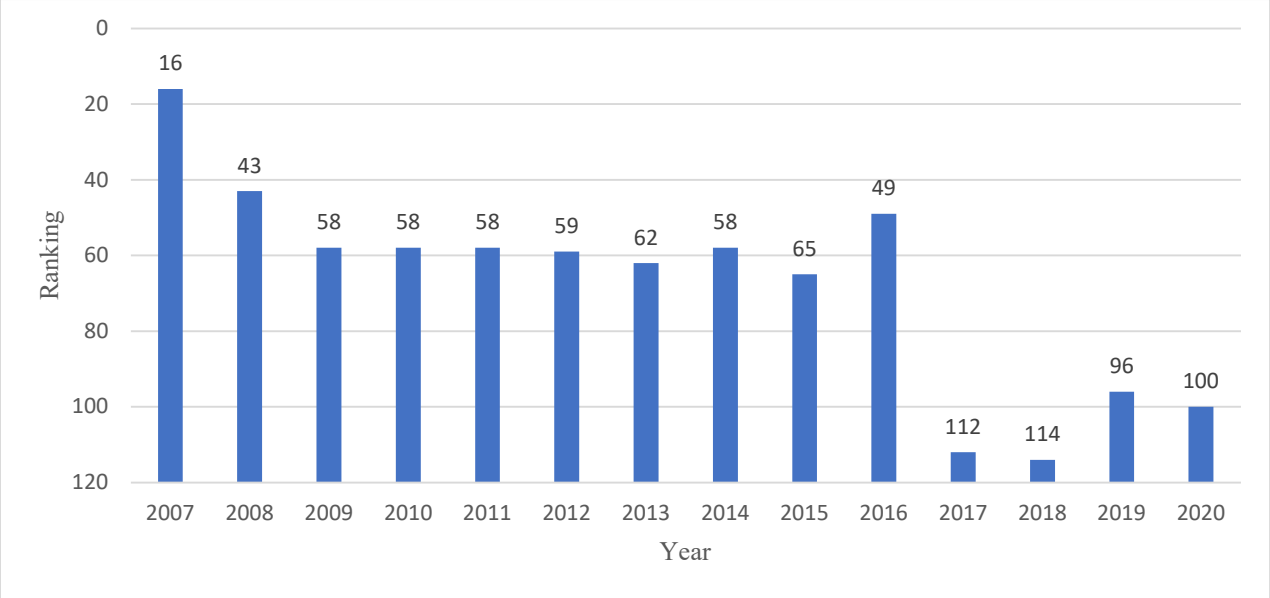
Indicator	Canada	OECD high income	Best Regulatory Performance
Procedures (number)	12	12.7	None in 2018/19
Time (days)	249	152.3	None in 2018/19
Cost (% of warehouse)	1.8	1.5	None in 2018/19
Building quality control index (0-15)	14	11.6	15.0 (6 Economies)

Source: The World Bank Report, 2020.

E. Enforcing Contracts

According to the DBI, the environment for the enforcement of contracts by business has significantly worsened in Canada, with the enforcing contracts pillar down 84 places from 16th in 2007 to 100th place in 2020 (Chart 11 and Table 4). This deterioration took place in two stages between 2007 and 2009, when the ranking rose from 16th to 58th and between 2016 and 2017 when the ranking rose from 49th to 112th.

Chart 11: Ranking for the Enforcing Contracts Pillar, 2007-2020



Source: The World Bank's reports for DB

Over the 2007-2020 period the enforcing contracts pillar was composed of three indicators. Two of these indicators, time and costs, were unchanged over the period. One original indicator was replaced. In 2016, the indicator for number of procedures was dropped and an index of the quality of juridical processes introduced. This change had a minor effect on Canada's ranking in the pillar.

The number of procedures needed for a business to enforce a contract in Canada was 17 in 2007 and rose to 36 in 2008, remaining at this number until this indicator was dropped in 2015. The world's best practice for number of procedures for enforcing contracts in 2015 was 21 and the worst performance was 53. Canada ranked close to best practice in 2007 with a ranking of 5th. However, given the more than doubling of the number of procedures, Canada dropped to 64th place in 2015.

In 2016, the index of the quality of juridical processes was introduced to replace the number of procedures indicator. This new index includes court structure and proceedings (1-5), case management (0-6), court automation (0-4) and alternative dispute resolution (0-3). The values for this index run from 0 (lowest quality) to 18 (highest quality). The value of the index for Canada (Toronto) was 10.5 in 2016, rising to 11.0 by 2020. In terms of the breakdown of this score, Canada received 4 out of 6 for court structure and proceedings, 2 out of 6 for case management, 3 out of 4 for court automation, and 2 out of 3 for alternative dispute resolution.

Canada ranked 46th on this indicator in 2016, rising slightly to 48th in 2020. As Canada ranked 64th in the former indicator in 2015, the move to the better ranked juridical quality indicator in 2016 boosted Canada's ranking for the pillar from 65th in 2015 to 49th. The absolute values of the other two indicators were unchanged between 2015 and 2016 and their ranking also almost unchanged, meaning that the 16-place improvement in the pillar's ranking can be attributed to the methodological changes brought by the move to the quality of juridical processes indicator.

There have been major increases in the time needed to enforce contracts through the courts in Canada (Toronto). This enforcement includes time to file and serve the case, time for the trial and to obtain the judgement and time to enforce the judgment. In 2007, this time was 345 calendar days. It then nearly doubled to 570 days in 2008 and stayed at this level to 2016. In 2017 it again increased significantly to 910 days and remained at this level through 2020. These 910 days are broken down into 30 days for filing and service, 150 days for enforcement, and 730 days for trial and judgement. It is this latter category, which is exactly two years, that accounts for Canada's poor result on this pillar.

The world's best practice for number of days for contract enforcement is 120 days and the worst performance is 1,340 days. Canada's ranking in this indicator dropped from 47th in 2007 to 97th in 2008 and then to 160th in 2017. Canada's performance on this measure is truly shocking, both in absolute and relative terms. It takes 2.5 years to obtain a juridical order for contract enforcement and Canada is in the bottom quintile of countries in the world on this indicator, including the developing countries. As the saying goes, justice delayed is justice denied.

The cost of enforcing contracts, which includes average attorney fees, court costs, and enforcement costs, has also increased in Canada (Toronto). In 2017, costs as a percentage of the value of the claim were 12.0 per cent. This increased to 16.2 per cent in 2008 and then to 22.3 per cent in 2009 and has remained unchanged at this level until 2020. The breakdown of the 22.3 per cent is 15.0 per cent for attorney fees, 5.3 per cent for court fees and 2.0 per cent for enforcement fees. The world's best practice for contract enforcement costs is 0.1 per cent of the claim and the worst performance is 89 per cent. Canada's ranking on this indicator was 32nd in 2007 and falling to 69th in 2009, remaining around this number up to 2020.

Table 4: Enforcing Contract Pillars

Panel A: Canada's Overall Ranking and Absolute Values for each Indicator of the Pillar, 2004-2020

Overall Ranking and Absolute Values by Indicator																	
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Rank	-	-	-	16	43	58	58	58	59	62	58	65	49	112	114	96	100
Procedures (number)	17	17	17	17	36	36	36	36	36	36	36	36	N/A				
Time (days)	425	346	346	346	570	570	570	570	570	570	570	570	570	910	910	910	910
Cost (% of claim)	-	12.0	12.0	12.0	16.2	22.3	22.3	22.3	22.3	22.3	22.3	22.3	22.3	22.3	22.3	22.3	22.3
Quality of judicial processes index (0-18)	N/A												10.5	9.5	9.5	11.0	11.0

Ranking by Indicator					
	2007	2009	2015	2016	2020
Procedures	5	62	64	N/A	
Time	47	97	101	98	160
Cost (% of Claim)	32	60	52	53	51
Quality of judicial process index (0-18)	N/A			46	48

Source: World Bank, Doing Business Reports

Note: In 2004, there were two other indicators entitled "procedural-complexity index (0-100)" and "cost (% of income per capita)". The first one, higher values indicated more procedural complexity in enforcing a contract. For Canada, in 2004, its value was 29. The second, included "court costs and attorney fees, as well as payments to other professionals like accountant and bailiffs" (World Bank, 2004). The value was 28.0.

Note: In order to find Canada's positions, we ranked the countries from the smallest absolute value to the largest (except for the quality of judicial processes index) and if many countries had the same absolute value, we considered them all on the same position.

Panel B: Frontier and worst performance for Enforcing Contracts Indicators, 2015-2016

	2015		2016	
	Frontier	Worst Performance	Frontier	Worst Performance
Procedures (number)	21	53[c]	N/A	
Time (days)	120	1,340[b]	120	1,340[b]
Cost (% of claim)	0.1	89.0[b]	0.1	89.0[b]
Quality of judicial processes index (0-18)	N/A		18	0[d]

Source: World Bank, Doing Business Reports

Notes:

b. Worst performance is defined as the 95th percentile among all economies in the Doing Business sample.

c. Worst performance is defined as the 99th percentile among all economies in the Doing Business sample.

d. Worst performance is the worst value recorded.

Panel C: Canada's performance on Enforcing Contracts Indicators relative to OECD high income countries and the best performance, 2020

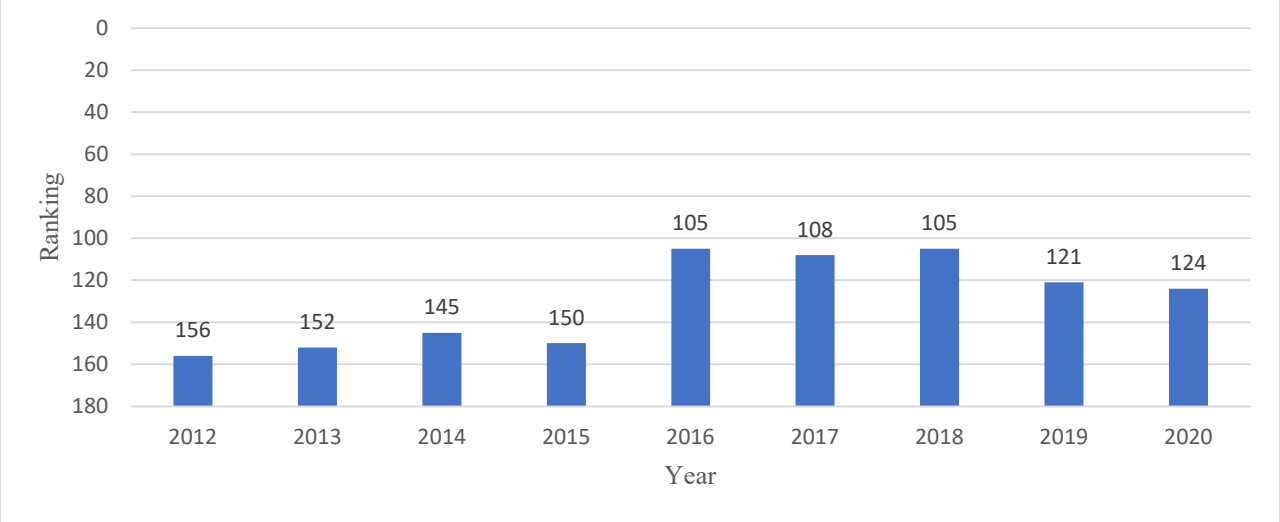
Indicator	Canada	OECD high income	Best Regulatory Performance
Time (days)	910	589.6	120 (Singapore)
Cost (% of claim value)	22.3	21.5	0.1 (Bhutan)
Quality of judicial processes index (0-18)	11.0	11.7	None in 2018/19

Source: The World Bank Report, 2020.

F. Getting Electricity

The largest deterioration in ranking was for the employing workers/getting electricity pillar dropping 111 places from 13th to 124th (Chart 12 and Table 5). In other words, the replacement of the employing workers pillar, which the World Bank dropped from the DBI in 2011 in response to objections from labour groups, by the getting electricity pillar resulted in an upward shift in Canada's ranking. Indeed, when the getting electricity pillar was introduced in 2012, with a dismal ranking of 156th place, Canada's DBI ranking rose five places from 7th, in 2011, to 13th, in 2012.

Chart 12: Getting Electricity



Source: The World Bank's reports for DB

Canada's poor performance on getting electricity is surprising. Canada is a world leader in both the production of electricity and in the electricity generation and transmission technologies. This section examines the four indicators that comprise the getting electricity pillar to shed light on Canada's poor performance and to assess whether it reflects the Canadian reality, or rather is specific to Toronto, the city for which the estimates of the indicators are gathered.

From 2011 to 2015 there were only three indicators: number of procedures for getting electricity,[19] number of days needed to get electricity,[20] and cost of getting electricity,[21] as a percentage of per capita income. In 2016, a fourth indicator was added, an index of reliability of supply and transparency of tariffs as expressed from 0 to 8.[22] The actual price of electricity is not included in the ease of doing business score nor in the ranking on the ease of getting electricity.

While Canada has always ranked in the bottom half of the economies for the getting electricity pillar covered by the DBI over the 2012-2020 period, there have been fluctuations (Table 5). The ranking was relatively stable from 2012 to 2015 in the 145-156 range. It improved to 105th in 2016 with the introduction of the reliability measure as Canada performed much better

[19] The procedures to obtain an electricity connection for a newly constructed warehouse include 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 materials for these works; and concluding any necessary supply contract and obtaining final supply.
[20] The time required to complete each procedure is at least 1 calendar day with each procedure starting on a separate day, does not include time spent gathering information, and reflects the time spent in practice, with little follow-up and no prior contact with officials.
[21] The cost is official costs only and excludes bribes and value added taxes.
[22] The reliability of supply and transparency of tariffs index (0-8) includes six components: duration and frequency of power outages (0-3); tools to monitor power outages (0-1); tools to restore power supply (0-1); regulatory monitoring of utilities' performance (0-1); financial deterrents limiting outages (0-1); and transparency and accessibility of tariffs (0-1).

on this indicator (46th) than on the other indicators. Since then, Canada's performance has steadily deteriorated, with the ranking rising to 124th by 2020.

Canada does particularly poorly in the number of procedures required for a new business electricity hook-up. This number was 8 in 2012 and 2013 and then fell to 7 from 2014 to 2020. The world best practice is 3 and the worst performance is 9. Given that Canada is close to the worst in the number of procedures, its ranking on this indicator is very poor, 169th in 2012 and 162nd in 2020.

Canada also did poorly in terms of time required for a new business electricity hook-up. In 2012, 168 days were needed. This fell to 142 days in 2013 and then fell again to 137 days where it remained for the rest of the decade. The world best practice is 18 days, and the worst performance is 248 days. Given that Canada is closer to the worst than to the best, its ranking on this indicator is high, 156th in 2012 and 171st in 2020. Canada's relative performance has deteriorated over time even though in absolute terms Canada is improving. This suggests other countries are improving at a faster rate.

The 2020 Doing Business Report for Canada provides a breakdown by procedure of the 130 days needed for an electricity connection. The time needed to submit the application to Toronto Hydro and await comments on the proposal is 15 calendar days. Next is 13 days needed to await completion and approval of project design, followed by 22 days to submit the final design to Toronto Hydro and await the offer to connect. It then takes 80 days for the completion of the external works by Toronto Hydro. Given that over 60 per cent of the days are in this stage, it is likely here that Canada performs poorly compared to other counties. It is unclear if Hydro Toronto's performance is typical of electricity providers in Canada.

The cost to a new business of obtaining an electricity hook-up in Canada in 2012 was 143.9 per cent of income per capita, which seems high. This cost has fallen steadily over time and by 2020 was 116.9 per cent of income per capita. The world best practice is apparently 0, that is no cost for a new business to get electricity while the worst performance is 8,100 per cent of per capita income. Canada is far from this number, ranking 50th in 2012, and 63rd in 2020. Again, one notes that Canada's relative performance fell while its absolute performance improved as other countries improved faster.

In 2016, Canada received a score of 6 out of 8 on the index for the reliability of electricity supply and transparency of tariffs and obtained the same score in three of the following four years (the score rose to 7 in 2018). Canada ranked 46th on this indicator in 2016, falling to 59th in 2020.

Canada's poor performance on getting electricity is suspect, especially when compared to that of other G7 countries. In 2019 Germany ranked 5th, the UK 7th, France 14th, Japan 22nd,

Italy 37th. and the United States 54th. Australia, which is very similar to Canada in many ways ranked 52nd.

As noted earlier, the poor performance may reflect the situation in Toronto. Other parts of the country may be more, or less, efficient and cost effective for a new business to obtain electricity. In any case, the inclusion of the getting electricity pillar in the DBI in 2012 made Canada's overall DBI ranking worse.

Table 5: Getting Electricity Pillar

Panel A: Overall Ranking and Absolute Values by Indicator of the Getting Electricity Pillar, 2012-2020

Overall Ranking and Absolute Values by Indicator									
	2012	2013	2014	2015	2016	2017	2018	2019	2020
Rank	156	152	145	150	105	108	105	121	124
Procedures (number)	8	8	7	7	7	7	7	7	7
Time (days)	168	142	142	142	137	137	137	137	137
Cost (% of income per capita)	143.9	140.4	131.8	131.0	126.1	125.8	125.3	119.8	116.9
Reliability of supply and transparency of tariffs index (0-8)	N/A				6	6	7	6	6

Ranking by Indicators			
	2012	2016	2020
Procedures	169	156	162
Time	156	163	171
Cost (% of income per capita)	50	60	63
Reliability of supply and transparency of tariffs index (0-8)	N/A	46	59

Source: World Bank, Doing Business Reports, and CSLS calculations.
Note: In order to find Canada's positions, we ranked the countries from the smallest absolute value to the largest absolute value, if many countries had the same absolute value, we considered them all on the same position.

Panel B: Frontier and worst performance for Getting Electricity, 2016-2020

	2016-2020	
	Frontier	Worst Performance
Procedures (number)	3	9^c
Time (days)	18	248^b
Cost (% pf income per capita)	0.0	$8{,}100.0^b$
Reliability of supply and transparency of tariffs index (0-8)	8	0^d

Source: World Bank, Doing Business Reports

Notes:

b. Worst performance is defined as the 95th percentile among all economies in the Doing Business sample.

c. Worst performance is defined as the 99th percentile among all economies in the Doing Business sample.

d. Worst performance is the worst value recorded.

Panel C: Canada's performance on Getting Electricity Indicators relative to OECD high income countries and the best performance, 2020

Indicator	Canada	OECD high income	Best Regulatory Performance
Procedures (number)	7	4.4	3 (28 Economies)
Time (days)	137	74.8	18 (3 Economies)
Cost (% of income per capita)	116.9	61.0	0.0 (3 Economies)
Reliability of supply and transparency of tariff index (0-8)	6	7.4	8 (26 Economies)

Source: The World Bank Report, 2020.

G. Explaining Canada's DBI Performance

Drawing on the above analysis, this sub-section has two objectives. The first is to explain which pillars and indicators account for Canada's 23rd ranking in 2020 on the DBI, well below that found in other competitiveness and economic environment indexes. The second is to explain the deterioration in Canada's ranking from 4th in 2007 to 23rd in 2020. The discussion focuses on the role of the four pillars with the worse performance, both in terms of the worse rankings in 2020 and the greatest deterioration between 2007 and 2020.

1. Explaining Canada's 23rd Ranking in 2020

Canada's 23rd place in the DBI in 2020 is largely explained by the four pillars with the worst ranking: the 124th ranking on getting electricity, the 100th ranking on enforcement of contracts, the 64th ranking on getting construction permits, and the 51st ranking on trading across borders. Excluding these four pillars, the average ranking of the six other pillars in 2020 was 15th.

The preceding analysis identified the specific indicator or in some cases indicators in each pillar that is the most important in contributing to the pillar's poor ranking in 2020.

- For the getting electricity pillar, Canada did very poorly for the indicator on time needed to obtain an electricity connection, ranking 137th out of 190 economies in the DBI in 2020.

- For the enforcing contracts pillar, Canada ranked 160th on the indicator on time needed to enforce a contract.

- For the construction permits pillar, Canada ranked 168th on the indicator on time needed to obtain a construction permit.

- For the trading across borders pillar, Canada ranked 142nd in cost of exporting and 127th in cost of importing.

2. Explaining the Fall in Canada's DBI Ranking

In 2007, the first year the DBI released country rankings, Canada ranked 4th out of 176 economies. By 2020, Canada had fallen 19 places to 23rd out of 190 countries. The four pillars with the worse rankings in 2020 were also the four pillars whose ranking deteriorated the most between 2007 and 2020.

- the ranking for the enforcement of contracts pillar fell 86 places from 16th in 2007 to 100th in 2020. This deterioration was largely driven by the indicator for time needed to enforce contracts which fell from 47th in 2007 to 160th in 2020. In absolute terms, the time for contract enforcement rose from 346 days to 910 days.

- the ranking for the trading across borders pillar fell 43 places from 8th in 2007 to 51st in 2020, reflecting the developments related to the cost of exporting (40th to 142nd) and cost of importing (50th to 127th).

- The ranking for dealing with construction permits fell 35 places from 29th in 2007 to 64th in 2020. This change was completely explained by the massive deterioration in the ranking

for the indicator on days needed to obtain a construction permit from 15th to 168th. In absolute terms, the number of days rose from 75 to 249.

- the introduction of the getting electricity pillar into the DBI in 2012 as a replacement for the employing workers pillar further contributed to the fall in Canada's ranking. Canada ranked 13th in the employing workers pillar in 2007, 111 places lower than the rank of getting electricity pillar in 2020 (124th).

The average fall in ranking of the four pillars between 2007 and 2020 was 68 places. As these indicators represent 40 per cent of the weight of the overall DBI, they moved Canada's ranking by 27 places (68*0.4). In contrast, in five other pillars Canada's ranking fell by much less, an average of 6 places. With their 50 per cent weight, these pillars boost the DBI around 3 places (5*0.5). These numbers are approximations as the overall DBI is not an average of the rankings of the ten pillars, but an average of the scores of the ten pillars. Nevertheless, they provide an idea of the importance of the deterioration of the ranking on these four pillars for Canada's overall fall in its DBI ranking.

For three of the four pillars that account for the lion's share of the deterioration in Canada's ranking in the DBI between 2007 and 2020 it was the indicator for time to obtain a required outcome result (construction permit, contact enforcement, or electricity connection) that has resulted in Canada's current performance. Assuming the indicators collected by the World Bank are accurate, this suggests Canada may have problems related to these characteristics of the business environment.

Chart 4 shows that there were three discrete upward shifts in Canada's DBI ranking between 2007 and 2020: from 4th in 2007 to an average 7th place by 2008-2011. Then to an average 16th place in 2012-2016, and, lastly to an average 22nd place in 2017-2020. The three drivers of these shifts have now been identified and are highlighted below.

- The shift between 2007 and 2008-2011 was due to increased cost of exporting and importing in the trading across borders pillar that took place in 2008 and 2009 and the fall in the enforcing contracts ranking, also between 2007 and 2008.

- The upward shift between 2008-2011 and 2012-2016 is largely explained by the introduction into the DBI in 2012 of the getting electivity pillar in which Canada fares poorly and the fall in the ranking dealing with construction permits pillar between 2012 and 2014.

- The upward shift between 2012-2016 and 2017-2020 was caused by the large increase in 2017 in the indicator the time needed to enforce contracts in the enforcement of contracts pillar.

H. Concerns over the DBI Results for Canada

This detailed examination of the DBI pillars and indicators for Canada has led to the identification of a number of data issues and broader questions.

1. Data Issues

The trends in a number of the DBI indicators are suspicious in two respects. First, some indicators remain unchanged for long periods. For example, the cost in Canada of both documentary and border compliance for both exporting and importing are the same in all five years from 2016 to 2020. One might expect that there would be some year-to-year variation in the questionnaire responses from the experts surveyed. Second, some indicators manifest very unusual changes over short period. For example, the cost of both exporting and importing in Canada have more than doubled between 2007 and 2009. One might expect that the reason for such large changes would be provided in the DB reports, but this is often not the case. The more than doubling of the cost of exporting and importing in Canada in the late 2000s remains a mystery that defies common sense. This casts doubt on the validity of the DBI finding that Canada in 2020 ranked poorly on the trading across borders pillar and has experienced a deterioration over time in this area.

While Toronto may be Canada's most important city, its business environment may not be representative of the national picture, especially in areas covered by municipal jurisdiction. Consequently, it may be misleading to conclude that the fall in the DBI ranking from 4th in 2007 to 23rd in 2020 for Canada based on data collected for Toronto applies to the overall country. This is especially the case given that two of the pillars responsible for Canada's decline in ranking, obtaining business permits and getting electricity are regulated by the local City of Toronto Planning Authority and Hydro Toronto. These municipal organizations may have very different procedures than comparable bodies in other municipalities. The World Bank does not appear to have investigated this issue.

The values for DBI indicators are generally expressed as means (averages). For certain indicators such as time needed to resolve court cases, there may be significant differences between the median and mean values. A small number of extremely long court cases may boost the mean with no effect on the median. Yet it is the median that may well be more relevant for most businesses.

It can be argued that the DBI ranking scheme represents a zero-sum game. If one country improves its ranking, another country must experience a fall, even when both countries enjoy absolute improvement in the DBI. From this perspective, trends in absolute scores may be more relevant or meaningful than trends in ranking in assessing how a country's environment for doing business is evolving. The World Bank has published scores for the DBI and the pillars since 2015. Canada's DBI ranking fell from 16th in 2015 to 23rd in 2020 while Canada's score actually increased from 79.1 to 79.6 over the period (Table 6). For the trading across borders pillar, Canada's ranking fell from 23rd to 51st while the score rose from 86.1 to 88.4.

Table 6: Comparison between Scores and Rankings for the DBI and Pillars for Canada, 2015 and 2020

	Scores			**Rankings**		
	2015	2020	Change	2015	2020	Change
Overall	79.09	79.6	0.51	16	23	-7
Starting a Business	98.82	98.2	-0.62	2	3	-1
Dealing with construction Permits	67.12	73	5.88	118	64	54
Getting electricity	59.27	63.8	4.53	150	124	26
Registering Property	76.2	77.8	1.6	55	36	19
Getting Credit	85	85	0	7	15	-8
Protecting Minority Investors	72.5	84	11.5	7	7	0
Paying Taxes	93	88.1	-4.9	9	19	-10
Trading across Borders	86.07	88.4	2.33	23	51	-28
Enforcing Contracts	63.76	57.1	-6.66	65	100	-35
Resolving Insolvency	89.17	81	-8.17	6	13	-7

Source: The World Bank's reports.

2. Broader issues

In addition to the data concerns discussed above, the detailed examination of the DBI pillars and indicators has raised two issues: the overall importance of the specific indicators on which Canada underperforms for the ease of doing business in this country and the neglect of environmental regulation issues.

The DBI gives equal weight to all 41 indicators in the ten pillars. Yet the indicators and the pillars are not all equally meaningful for business for two reasons. First, the indicator may not be particularly important for the operation of business. For example, if a process requires a large number of procedures to complete, yet can be done quickly and cheaply, the fact that Canada scores poorly on the number of procedures may not be important, even though it reduces the ranking. Second, there may be behavioural response to a poor performance on an indicator that would reduce the negative effect of this performance on doing business. For example, long times for resolving court cases may provide an incentive for parties to settle quickly out of court. The DBI reports for Canada provide little insight into the relative importance of the different

indicators on which Canada does poorly, such as the long time needed to get electricity, to obtain construction permits, and to enforce contracts.

A recent National Post article entitled "Canada can't get things done" (Hopper, 2021) made the case that Canada appears to not be achieving objectives in a number of areas, including military procurement, pandemic response, pipelines, transit, clean water on reserves, diplomacy, dams and 24 Sussex Drive renovations. This message seems consistent with Canada's fall in the DBI from 4th to 23rd since 2007, with the deterioration driven by the increased time required to get things done. What is interesting is that the DBI indicators do not cover environmental regulation where delays can be long, and approval often denied. Had this area of doing business been include in the DBI Canada's ranking may well have been lower.

V. Comparing the DBI with Other International Competitiveness and Economic Environment Indexes

Table 7: Canada's Ranking for Competitiveness Indices 2007-2020

	World Bank Ease of Doing Business Index	IMD World Competitiveness Ranking	Global Competitiveness Report World Economic Forum	Cato Institute Human Freedom Index	Fraser Institute Index of Economic Freedom	OECD product market regulation indicators	OECD Employment Protection Regulation Indicators
year							
2007	7	10	16	-	8		6
2008	8	8	10	6	7	18	8
2009	8	8	9	6	7		8
2010	7	7	10	7	7		8
2011	12	7	12	7	6		9
2012	17	6	14	8	6		9
2013	19	7	14	5	6	17	8
2014	13	7	15	4	6		11
2015	20	5	13	7	6		8
2016	22	10	15	5	6		7
2017	18	12	14	4	7		7
2018	22	10	12	6	9	34	7
2019	23	13	14	-	8		7
2020	23	8	-	-	9		

Source: Global Competitiveness Report for each year, compiled by CSLS; Cato Institute's human freedom index report for each year, compiled by CSLS;
https://worldcompetitiveness.imd.org/customsearchresults/criteriaresult;

https://stats.oecd.org/index.aspx?DataSetCode=PMR#; https://stats.oecd.org/Index.aspx?DataSetCode=EPL_T; Website of the Fraser Institute

As was noted earlier in the report, since 2007 the trends in the DBI and four other well-known international competitiveness or economic environment indexes have diverged. As shown in Chart 5 on page 22 and in Table 7, Canada's position in the IMD World Competitiveness Index, the World Economic Forum Global Competitiveness Index, the Cato Institute Human Freedom Index the Fraser Institute Index of Economic Freedom have been fairly stable over the 2007-2020 period, while Canada's ranking in the DBI has fallen from 4th to 23rd place.

The objective of this section is to look at how Canada has fared on these four measures of international competitiveness and economic environment and on two OECD measures of the business environment. The section also compares trends in a number of specific indicators where Canada has done particularly poorly according to the DBI with comparable indicators in the four indexes. This allows one to ascertain if the latter are consistent or inconsistent with the reported DBI developments.

A. IMD World Competitiveness Index

The IMD World Competitiveness Ranking is an annual report on the competitiveness of countries produced by the IMD Business School in Switzerland. It benchmarks the performance of 63 countries, based on more than 332 criteria (two thirds statistical data and one third survey data). The IMD World Competitiveness Ranking is divided into 4 subsections, economic performance, government efficiency, business efficiency and infrastructure. Each of these four subsections is divided into five components, making a total of 20 components, as shown in Table 8.

In 2020, Canada moved up to 8th from 13th in 2019 on the IMD World Competitiveness ranking. In 2007, Canada had ranked 10th. This recent improvement is centered around improvements in measures related to its labor market and in the openness of its society. Canada also became the top-ranking country in the Americas in 2020 when the overall ranking for the United States fell from 3rd to 10th in 2020.

Canada did equally well in the sub-sections, ranking 8th for infrastructure and 10th for economic performance, government efficiency, business efficiency. In terms of the components, Canada ranks in the top five countries on 2 of 20 components, education (4), and labor market (5), and between 5th and 10th for an additional 9 of the 20 components. Canada scores outside the top 25 in 2020 on three components, international trade (49), employment (28) and domestic economy (21). The poor score on international trade is consistent with Canada's poor performance on this pillar in the DBI.

Respondents of the Executive Opinion Survey, which informs several of the components of the IMD World Competitiveness Ranking, selected high education level, skilled workforce, policy stability and predictability as the most attractive factors of the Canadian economy. The country report for 2020 indicates that Canada's major challenges for 2020 include a shortage of skilled digital talent to meet demand in high growth sectors like technology, challenges scaling start-ups including lack of digital adoption among SME's, lack of incentives to draw foreign direct investment in key areas like technology. Additionally, the report highlights the digital divide related to the uneven access to digital connectivity infrastructure across the country.

Table 8: Components of the IMD World Competitiveness Ranking, 2020.

	2020 Rank		2020 Rank
Overall Performance	**8**		
Economic Performance	**10**	**Business Efficiency**	**10**
domestic economy	21	productivity and efficiency	19
international trade	49	labor market	5
international investment	8	Finance	6
Employment	28	management practices	7
Prices	9	attitudes and values	12
Government Efficiency	**10**	**Infrastructure**	**8**
public finance	20	basic infrastructure	8
tax policy	17	technological infrastructure	14
institutional framework	10	scientific infrastructure	19
business legislation	17	health and environment	8
societal framework	10	Education	4

Source: https://www.imd.org/wcc/world-competitiveness-center-rankings/competitiveness-country-profiles/

The challenges identified by the IMD above differ significantly from the most important weaknesses in the environment for doing business in Canada identified in the deep dive on the DBI, namely, getting electricity, enforcing contracts, and dealing with construction permits. This may be explained by the different focus of the two reports. The IMD report is much wider in orientation, defining competitiveness in terms of many factors as outlined above. In contrast, the

DBI is much narrower, focusing on business regulations and practices. Indeed, the IMD report has no specific indicators on time needed to enforce contracts, to obtain a construction permit and to make an electricity connection, the three indicators that contributed significantly to Canada's 23rd DBI ranking in 2020 and the deterioration in the ranking between 2007 and 2020.

In addition to its World Competitiveness Ranking, the IMD also publishes the World Competitiveness Digital Rankings (IMD, 2020). Canada did not perform quite as well on this index, ranking 12th out of 63 countries in 2020 compared to 8th on the World Competitiveness Rankings. Both IMD indexes include a subfactor called regulatory framework. In 2020, Canada placed 12th out of 63 countries on the regulatory framework, compared to 23rd out of 190 countries on the DBI, which is largely focused on business regulation. If one excluded from the DBI ranking the countries not in the set of 63 countries covered by the IMD, Canada would rank 15th which is comparable to the IMD ranking.

Two of the indicators in the IMD regulatory framework index correspond to DBI pillars, namely starting a business and enforcing contracts. The IMD ranks Canada 2nd out of 63 countries on starting a business. The DBI ranking on this pillar is 3rd out of 190. Both metrics show that Canada is a stellar performer in this area.

The IMB ranks Canada 50th out of 63 countries on enforcing contracts. The DBI ranking is 100 out of 190 countries. Both metrics show that Canada performs poorly in this area. In relative terms, the IMD ranking shows Canada does worse than the DBI ranking.

This consistency across indexes for these two indicators in the IMD and DBI rankings supports the validity of the DBI indicators**.**

B. World Economic Forum Global Competitiveness Report

The Global Competitiveness Index (GCI) 4.0 produced by the Geneva-based World Economic Forum measures national competitiveness—defined as the set of institutions, policies and factors that determine the level of productivity. It offers insights into the economic prospects of 141 countries. The 2019 Global Competitiveness Index ranges from 0-100 where having a higher score is indicative of a more competitive environment. The results of the GCI in 2019 reveal that, on average, most economies continue to be far from the competitiveness "frontier"—the aggregate ideal across all factors of competitiveness. The GCI is currently based on 13 components with 19 specific indicators.

The World Economic Forum's Global Competitiveness Report 4.0 ranked Canada 14th out of 141 countries in 2019. Canada's ranking between 2007 and 2019 in the Global Competitiveness Index has been relatively stable. Canada ranked 10th in 2008, the first year the GCI was estimated.

The best rank was in 2009, where the country ranked 9th. Otherwise, the ranking stayed consistently between 10 and 16.

Canada in 2019 ranked in the top ten on three subcomponents, macroeconomic stability (1st), labour market efficiency (8th), and financial market sophistication (9th) (Table 9). Canada also ranked outside the top 20 on three subcomponents in 2019, ICT adoption (35th), infrastructure (26) and goods market efficiency (product market) (24th).

Between 2008 and 2018 Canada experienced a massive improvement in its rank on macroeconomic stability from 43rd to first. On all the 10 other components for which ranking are available for both years, Canada's ranking fell, with the largest fall in infrastructure (6th to 25th), goods market efficiency (product market) (16th to 24th), and health and primary education (6th to 14th)

Table 9: 2008 and 2019 Global Competitiveness Report World Economic Forum, Canadian comparison for each subcomponent

		2008	2019
		rank	rank
	Overall score	10/134	14/141
1	Institutions	15	13
2	infrastructure	6	26
3	ICT adoption	-	35
4	macroeconomic stability	43	1
5	health and primary education called health in 2019	6	14
6	higher education and training called skills in 2019	9	12
7	Goods Market efficiency (product market)	16	24
8	labor market efficiency	7	8
9	financial market sophistication	10	9
10	technological readiness	9	-
11	market size	14	16
12	business dynamism	-	12
13	innovation capability	-	16

Source:https://www.weforum.org/reports/how-to-end-a-decade-of-lost-productivity-growth; http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2008-09.pdf

Note: the 2019-2020 Global Competitiveness Report 4.0 covers 141 countries. Scores are ranked from 0-100 for 2019-2020 where 100 represents the 'frontier' an ideal state where an issue ceases to be a constraint to productivity growth.

The 2019 report was published on October 8, 2019. The Global Competitiveness Report 2008-2009 was published March 4, 2008. 2008-2009 data is normalized on a 1-7 scale, and rankings are out of 131 countries.

1. Comparing WEF and DBI rankings at the indicator level

The Canada profile for the WEF's Global Competitiveness Index (GCI) report provides Canada's ranking out of 141 countries for the individual indicators for the 12 WEF pillars in 2019. It is instructive to compare the indicators that match those found in the DBI for 2020.

Canada does very poorly on the getting electricity pillar of the DBI, ranking 124th out of 190 countries in 2020. In contrast, Canada does much better in the WEF indicators related to utility regulation. Canada ranked an extremely impressive 2nd out of 141 countries in electricity access of the population in 2019. Canada did much less well in electricity supply quality, ranking 69th. Although the exact definitions of the electricity-related indicators differ between the GCI and the DBI, the GCI results suggest that the DBI may be overstating Canada problems related to electricity. The DBI measure is very narrow, related to the cost and time needed for an industrial site electricity hook-up in Toronto, while the WEF is much broader. Both measures may of course be accurate.

The DBI ranks Canada quite high in the getting credit pillar, at 15th out of 90 countries. Canada also does very well on the GCI's indicator for domestic credit to the private sector, ranking 4th out of 141. The DBI ranks Canada poorly in dealing with construction permits, with Canada ranking 64th or at the 66th percentile. The GCI indicator for the quality of land administration also ranks Canada relatively poorly, 49th out of 141 countries (71st percentile). Because the DBI and GCI indicators are different, these similarities support the accuracy of the DBI results for these two pillars.

The DBI and GCI rankings are also very similar for two other DBI pillars, starting a business and resolving insolvency. The GCI ranks Canada 2nd out of 141 countries in the time to start a business, compared to 3rd in the DBI. The GCI ranks Canada 9th in the cost of starting a business, identical to the ranking in the DBI. The GCI ranks Canada second in the solvency recovery rates, compared to 10th in the DBI. In terms of the insolvency regulatory framework, the GCI ranks Canada 49th compared to 55th in the DBI. As the insolvency framework index goes from 0-16 for each ranking; it appears that the WEF uses the World Bank data. This also appears to be the case for the starting business measures. This makes comparison not meaningful since the measures are not independent.

2. Transformation readiness performance

In December 2020, the WEF published the *2020 Global Competitiveness Report*: *How Countries are Performing on the Road to Recovery* (Schaub and Zahidi, 2020), This report differed from past reports in not updating the rankings for the 13 areas of competitiveness in 141 countries found in earlier Global Competitiveness Reports. Rather it provided scores in 11 categories of transformation readiness for 36 countries.

Table 10 shows Canada's performance in terms of both score and ranking in these 11 categories. The average ranking for the category is also given, with the top and bottom performing country in the category and their score.

The CSLS has calculated that Canada ranked 6th out of 36 countries for the global average scores based on the average score for each of the 11 categories.[23] Canada had an above average score in 10 categories of the 11 categories, only falling slightly below average (77.0 versus 78.7) in the category "upgrading infrastructure to accelerate the energy transition and broaden access to electricity and ICT." Ironically, despite the below average score, this category was the one where Canada achieved its highest score. Canada appears to be doing a good job in upgrading infrastructure, but most other developed countries are doing even better.

Canada ranked in the top ten among the 36 countries in six of the 11 categories: second (perhaps surprisingly) for rethinking competition and anti-trust frameworks; third for expanding eldercare childcare and healthcare infrastructure; seventh in shifting to a more progressive tax system; eighth in rethinking labour laws and social protection; ninth in ensuring public institutions embed strong governance principles, and tenth in updating education curriculum.

Canadas's sixth place ranking on the World Economic Forum's transformation readiness performance categories contrasts with our 23rd ranking in the DBI. This is in part explained by the much fewer countries in the WEF set of countries than the DBI (36 versus 190). There were 11 countries above Canada in the DBI ranking which are not in the WEF ranking.[24] When these countries are dropped, Canada moves up to 10th place in the DBI ranking, much closer to its sixth place in the WEF ranking. Indeed, Canada now ranks at the 94th percentile (10/178) of countries for the DBI ranking, well above its 80th percentile (6/36) for the WEF categories.

An additional factor explaining the divergence in the ranking is that the WEF categories are much broader and forward looking, while the DBI pillar are narrowly focused on number of procedures, time, and cost of various aspects of the ease of doing business. From that angle, it is not surprising that the rankings differ.

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[23] This ranking is based on the country aggregate average scores calculated as an average of the 11 category scores for each county, not as an average ranking of Canada's ranking on the 11 categories.

[24] Singapore, Hong Kong, Georgia, Norway, Lithuania, Malaysia, Taiwan, United Arab Emirates, North Macedonia, Latvia, and Thailand

Table 10: Canada's Performance on Economic Transformation Priorities, by 2020 score

		Canada's score	Mean	Highest	Lowest	rank
1	Ensure public institutions embed strong governance principles and a long-term vision and build trust by serving their citizens	67.0	60.0	78.5 Finland	42.84 Russia	9
2	Upgrade infrastructure to accelerate the energy transition and broaden access to electricity and ICT	77.0	78.7	99.8 Estonia	57.2 Russia	23
3	Shift to more progressive taxation, rethinking how corporations, wealth and labour are taxed, nationally and in an international cooperative framework	56.7	50.0	65.2 South Africa	30.7 Hungary	7
4	Update education curricula and expand investment in the skills needed for jobs and "markets of tomorrow"	65.3	55.3	75.3 Finland	38.8 Greece	10
5	Rethink labour laws and social protection for the new economy and the new needs of the workforce	69.8	61.4	77.0 Denmark	42.9 South Africa	8
6	Expand eldercare, childcare and Healthcare infrastructure, access and innovation for the benefit of people and the economy	61.6	47.8	75.9 Sweden	24.7 Greece	3
7	Increase incentives to direct financial resources towards long-term investments, strengthen stability and expand inclusion	75.1	69.2	95.4 Finland	32.8 Argentina	17
8	Rethink competition and anti-trust frameworks needed in the Fourth Industrial Revolution, ensuring market access, both locally and internationally	74.7	62.0	77.6 USA	42.5 Russia	2
9	Facilitate the creation of "markets of tomorrow", especially in areas that require public-private collaboration	49.5	45.1	59.5 Finland	34.3 Argentina	10
10	Incentivize and expand patient investments in research, innovation and invention that can create new "markets of tomorrow"	42.8	41.6	57.3 USA	25.2 Greece	17
11	Incentivize firms to embrace diversity, equity and inclusion to enhance creativity	66.5	62.2	79.2 China	45.1 India	13
	Aggregate (values based on a simple average of the 11 priorities above)	64.2				6

Source: https://www.weforum.org/reports/the-global-competitiveness-report-2020, pg. 74-76, and pg. 45-46 (tables 5.1 and 5.2)

Note: scale goes from 0-100

Notes: They offer a preliminary assessment, using available statistics, of the approximate state of countries. The 2020 Global Competitiveness Report Special edition, 2020 was published on December 16, 2020. Ranks are given out of 36 countries for performance on economic transformation readiness by aggregated 2020 score (0-100 scale).

C. The Fraser Institute Index of Economic Freedom

The Fraser Institute's Index of Economic Freedom (IEF) ranks countries based on economic freedom; "the fundamental rights of every human to control his or her own labour or property." The index is composed of twelve pillars evaluated for 186 different countries which assess the freedom of movement, coercion, and constraint of liberty. The index ranks countries based on the twelve freedoms (pillars) grouped into four categories, rule of law, government size, regulatory efficiency, and open markets. Each country's overall score is derived by averaging the twelve economic freedoms with equal weights given to each pillar.

The index is on a 0-100 scale where 100 is completely free, and 0 means completely repressed. The Index of Economic Freedom classifies countries into five categories based on their scores, (1) *Free* with a score of 100-80, (2) *mostly free* with a score between 79.9 -70, (3) *moderately free* with a score between 69.9-60, (4) *mostly unfree* 59.9-50, and (5) *repressed* with a score between 49.9-0. Scores for 2020 were compiled based on data and information up to June 30, 2020.

Canada ranked 9th overall in 2020, with a score of 78.2 meaning Canada is categorized by the index as *mostly free.* Since 2007, Canada's ranking has remained stable, as seen in Table 11. The Index of Economic Freedom's Country Report for 2020 highlighted labour market rigidity and increased government spending as factors contributing to the drop in Canada's score from above 80 (free) in 2014. However, Canada does rank first in the Americas, beating the United States by 1.6 points. Canadas scores have increased for two pillars (rule of law and open markets) since the 2019 publication but decreased in the regulatory efficiency pillar due in part to increases in annual leave and sick leave benefits.

In 2020, Canada did particularly poorly in four pillars: government spending (145th), monetary freedom (105th), tax burden (103rd), and fiscal health (87th). On the other hand, Canada placed in the top ten countries for financial freedom (4th), government integrity (7th) and property rights (8th). Between 2007 and 2020 Canada's ranking improved in 3 of 10 pillars (two pillars were added after 2007), namely government integrity (from 14th to 7th), investment freedom (43rd to 21st place), and financial freedom (18th to 4th place). Canada's ranked much worse in 2020 than in 2007 on monetary freedom (105th versus 38th) and at least 20 places worse for tax burden (77th to 103rd), government spending (125th to 145th), business freedom (2nd to 22nd), labour freedom (17th to 37th).

Table 11: Fraser Institute Index of Economic Freedom Rankings for 2007 and 2020, Canada

	2007	2020
Overall Ranking	8	9
Pillars' Rankings		
Property Rights	1	8
Judicial Effectiveness	N/A	21
Government Integrity	14	7
Tax Burden	77	103
Government Spending	125	145
Fiscal Health	N/A	87
Business Freedom	2	22
Labor Freedom	17	37
Monetary Freedom	38	105
Trade Freedom	5	13
Investment Freedom	43	21
Financial Freedom	18	4

Source: Author's calculations using the website of the Fraser Institute.
Note: The rankings were calculated from the largest value to the smallest

1. Comparing IEF and DBI indicators

The detailed indicators that make up the Index of Economic Freedom include a number that match indicators in certain DBI pillars. Table 12 shows the scores for these indicators for the 2007-2018 period. Unfortunately, the rankings for these indicators are not available.

The DBI ranked Canada 100th out of 190 countries in enforcing contracts. This poor performance was also found in the IEF score for the legal enforcement of contracts indicator. This score was 5.82 in 2018, well below the overall IEF score of 8.17. In addition, the score was down from 6.41 in 2007. This similarity in performance in 2018 and deterioration over time for the IEF and DBI indicators related to the enforcement of contracts lends credibility to the DBI assessment.

A divergent picture is given by the two indexes on the compliance cost of importing and exporting. According to the IEF, Canada scored 9.89 out of 10 on this indicator in 2018. This represents an almost perfect score so Canada must rank near the top on this indicator. In addition, the score has been improving over time. In contrast, the DBI has four indicators related to the compliance cost of exporting and importing and Canada ranks poorly in all four: 141st out of 190 on cost of documentary compliance to export, 132nd for cost of documentary compliance to import; 54th on border costs to export; and 49th on border costs to import. The IEF Ranking strongly suggest that the World Bank may be overestimating Canada's compliance cost disadvantage for exporting and importing.

In terms of overall business regulation, the IEF gave Canada a score of 8.18 in 2018, up slightly from 7.95 in 2007. The 2018 score was virtually identical with the overall IEF score of 8.17. suggesting that Canada's ranking on business regulation may be similar to the country's overall IEF ranking of 9th place.

The DBI has no overall measure for business regulation, but several of the pillar capture various aspects of regulation. These indicators tend to show a worse ranking than the IEF ranking and a deterioration over time. From this perspective, the Fraser Institute paints a more positive picture of the regulatory environment for business in Canada than does the World Bank.

The overall IEF business regulation indicator has six sub-indicators, with two of them matching DBI pillars. The score for the starting a business indicator in 2018 was 9.95 out of 10, an almost perfect score. This indicator has been consistently high over time, at 9.83 in 2007. The DBI ranks Canada 3rd out of 190 countries in the starting a business pillar, so the two indexes provide a consistent message on this measure.

The second indicator under business regulation is licencing restrictions. The Fraser Institute gives Canada a score of 6.85 in this indicator in 2018, well below the overall score of 8.17 and down significantly from 9.83 in 2007. In other words, the IEF identifies a deterioration in the ease of obtaining licences in Canada over the past decade. This is consistent with the situation in the dealing with construction permits pillar of the DBI. Canada ranked 64th in 2020, down from 32nd in 2007. This suggests that the two indexes are picking up the same trend, namely that Canadian business are having greater difficulties in obtaining licenses.

Table 12: Fraser Institute Scores for Canada, 2007-2018

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Summary Ratings	8.23	8.21	8.18	8.18	8.08	8.18	8.23	8.33	8.19	8.24	8.26	8.17
Summary Rank	7	6	5	5	6	5	5	5	7	6	6	9
Legal enforcement of contracts	6.41	6.41	6.41	6.41	6.41	6.28	6.16	6.16	5.57	5.57	5.82	5.82
Compliance cost of importing and exporting	8.89	8.89	8.89	8.89	8.89	8.87	8.87	9.89	9.89	9.89	9.89	9.89
Business regulations	7.95	7.95	7.95	8.55	8.28	8.22	8.29	8.31	8.21	8.19	8.28	8.18
Administrative requirements	4.23	4.26	4.37	4.22	4.10	4.45	4.74	4.73	4.61	4.69	4.56	4.83
Regulatory Burden	5.44	5.44	5.44	9.09	9.09	9.78	9.78	9.78	9.33	9.11	9.78	8.89
Starting a business	9.83	9.84	9.84	9.84	9.84	9.84	9.84	9.95	9.95	9.95	9.95	9.95
Impartial Public Administration	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Licensing restrictions	9.51	9.51	9.51	9.63	8.14	6.75	6.86	6.86	6.86	6.85	6.85	6.85
Cost of Tax compliance	8.67	8.67	8.53	8.53	8.53	8.53	8.53	8.53	8.53	8.53	8.53	8.53

Source: Fraser Institute's Website.

D. The Cato Institute Human Freedom Index

The Human Freedom Index (HFI) presents the state of human freedom in the world based on a broad measure that encompasses personal, civil, and economic freedom. Human freedom is a social concept that recognizes the dignity of individuals and is defined by the Cato Institute as negative liberty or the absence of coercive constraint. The HFI is ranked on a scale of 0-10 where higher values indicate higher levels of freedom. The average score for the 162 countries assessed for 2018 was 6.3. The Human Freedom Index is split into two categories: personal freedom and economic freedom. These two categories are in turn broken down into 12 components and 76 distinct indicators.

In 2018, Canada ranked 6th overall, identical to their rank in 2008. While Canada's score in 2018 was higher for the personal freedom category (9.1 out of 10) than the economic freedom category (8.17 out of 10), overall Canada ranked higher in the economic freedom category (9th versus 12th).

Despite Canada's unchanged ranking between 2008 and 2018 for the overall HFI between 2009 and 2018, the ranking for both categories fell. The ranking for economic freedom dropped from 6th to 9th and the ranking for personal freedom declined from 12th to 13th.

Among the sub-indicators for the personal freedom category, Canada scores highly in the safety and security, movement, expression, and information, and relatively weaker on rule of law and religious freedoms. For the economic freedom category, Canada's score is pulled downward due to the size of government, and the legal systems and property rights sub-indicator due to lower scores on impartiality of the courts and legal enforcement of contracts.

Canada scores 9.7 or higher for security safety, movement, expression and information, and identity and relationships in the personal freedom category. Canada scores below 9.0 in just two of the indicators on the personal freedom side (scores of 7.7 for rule of law and 8.3 for religious freedoms)[25]. Canada's economic freedom score is pulled downwards by the 6.7 scored for size of government. Canada also scored lower for economic freedom due to the 7.7 it scored in the legal system and property rights category caused by lower scores on impartiality of the courts and legal enforcement of contracts.

As noted, since 2008, the first year of the Human Freedom Index, Canada's ranking has been relatively consistent, increasing to fourth in 2014 and again in 2017 with an average ranking of 6th place. Canada's lowest overall score was in 2015 at 8.61.

Table 13: The Human Freedom Index for Canada, Scores over Time

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Overall Ranking	6	6	7	7	8	5	4	7	5	4	6
Human Freedom Index	8.66	8.65	8.65	8.6	8.64	8.68	8.73	8.61	8.64	8.69	8.64
Components' Scores											
Personal Freedom	9.11	9.12	9.12	9.12	9.09	9.13	9.12	9.03	9.04	9.12	9.1
Rank	12	-	-	-	-	-	-	-	-	-	13
Economic Freedom	8.21	8.18	8.18	8.08	8.18	8.23	8.33	8.19	8.24	8.26	8.17
Rank	6	-	-	-	-	-	-	-	-	-	9

Source: The website of the Human Freedom Index; https://www.cato.org/sites/cato.org/files/2020-12/human-freedom-index-2020.pdf

Note: The scale is from 0 to 10, 10 representing more freedom. The Human Freedom Index uses 76 different indicators of personal and economic freedom. The indexes presented in the above table are the overall indices for these two indicators. The rankings were calculated from the largest value to the smallest.

[25] Scores for subcomponents available on page 113 of https://www.cato.org/sites/cato.org/files/2021-01/human-freedom-index-2020%5B1%5D.pdf

Table 14: The Human Freedom Index, for Canada, Scores for Economic Freedom Components, 2018

	Score		Score
Economic Freedom	**8.17**		
Size of Government	**6.7**	**Sound Money**	**9.6**
Government consumption	4.0	Money Growth	9.3
Transfers and Subsidies	7.0	Standard Deviation of Inflation	9.5
Government Enterprise	9.2	Inflation: Most Recent Year	9.5
Top Marginal Tax Rate	5.0	Freedom to Own Foreign Currency	10.0
State Ownership of Assets	8.3	**Freedom to Trade Int'l**	**8.1**
Legal Systems and Prop. Rights	**7.7**	Tariffs	7.0
Judicial Independence	7.2	Regulatory Trade Barriers	7.9
Impartial Courts	6.7	Black Market Exchange Rates	10.0
Protection of Prop. rights	7.4	Movement of Capital and People	7.5
Military Interference	10.0	**Regulation**	**8.8**
Integrity of the Legal System	8.2	Credit Market Regulations	10.0
Legal Enforcement of Contracts	5.8	Labour Market Regulations	8.1
Regulatory Costs	8.7	Business Regulations	8.2
Reliability of Police	7.9		

Source: The website of the Human Freedom Index; https://www.cato.org/sites/cato.org/files/2020-12/human-freedom-index-2020.pdf

E. OECD Labour Market and Product Market Regulation Indicators

The OECD produces two indexes related to the business environment, an index of employment protection regulation and an index of product market regulation. The premise is this: the lower the index and the level of regulation the more favourable the business environment. This sub-section reviews these indexes.

1. Labour Market regulation indicators

The OECD indicators of employment protection legislation evaluate the regulations on the dismissal of workers on regular contracts and the hiring of workers on temporary contracts. As these indicators are from a business perspective, the better the ranking the fewer the labour market protections. The indicators cover both individual and collective dismissals.

The indicators have been compiled using the Secretariat's own reading of statutory laws, collective bargaining agreements and case law as well as contributions from officials from OECD member

countries and advice from country experts. The OECD divides its Indicators of Employment Protection into four sub-indicators: strictness of regulation of collective dismissals for workers on regular contracts, strictness of dismissal regulation for workers on regular contracts (both individual and collective dismissals), strictness of regulation of individual dismissals of workers on regular contracts and strictness of hiring regulation for workers on temporary contracts. To better understand Canada's position in these indicators the CSLS took an average of the rank of each sub indicator which is presented in the fifth column of Table 15.

The four-employment protection legislation indicator scores for Canada have remained unchanged from 2007 to 2019, which is somewhat surprising. Canada ranked first or second on three of the four indicators consistently over the period. Canada did poorly, however, for collective dismissals, ranking 23rd in 2019 from 2007 to 2019. Canada's overall ranking was 7th in 2019, up slightly from 6th in 2007.

Canada's high ranking on indicators of employment protection legislation indicates fewer rights for workers relating to dismissals relative to other countries. From a business perspective, this represents a favourable environment in which to operate.

The OECD finding that Canada has a flexible labour market is supported by the ranking given in the Employment Flexibility Index produced by the Lithuania Free Market Institute (2020). Based on indicators related to regulations in four areas (hiring, working hours, redundancy rules, and redundancy cost). Canada ranked fifth out of 41 OECD and EU countries in 2020, behind only (in order) the United States, Japan, New Zealand, and the UK. France was last in the index, followed by Luxembourg and Mexico. Canada also ranked fifth in 2018 and 2019.

The finding that Canada has a flexible labour market favourable to employers is consistent with our ranking on the DBI pillar on employing workers. In 2007, Canada ranked 13th out of 190 countries on this measure. The ranking was 17th in 2010, the last year this pillar was included in the DBI. It was replaced in 2012 by the getting electricity pillar, on which Canada does much worse. This means that Canada's strong performance in employing workers in not currently reflected in the DBI and is one of the factors behind the country's drop from 4th to 23rd place between in the DBI between 2007 and 2020.

Table 15: OECD Employment Protection Legislation Indicators

	strictness of employment protection									
	collective dismissals (1)		collective dismissals (individual and collective dismissal of workers on regular contracts) (2)		individual dismissals (regular contract) (3)		temporary contracts (4)		Average (5)	
	Rank	Score	Rank	score	rank	score	rank	score	rank	score
2007	17	3.13	2	0.59	2	0.59	1	0.25	6	1.14
2008	27	3.13	2	0.59	2	0.59	1	0.25	8	1.14
2009	27	3.13	2	0.59	2	0.59	1	0.25	8	1.14
2010	27	3.13	2	0.59	2	0.59	1	0.25	8	1.14
2011	29	3.13	2	0.59	2	0.59	1	0.25	9	1.14
2012	29	3.13	2	0.59	2	0.59	1	0.25	9	1.14
2013	25	3.13	2	0.59	2	0.59	1	0.25	8	1.14
2014	38	3.13	2	0.59	2	0.59	1	0.25	11	1.14
2015	26	3.13	2	0.59	2	0.59	1	0.25	8	1.14
2016	22	3.13	2	0.59	2	0.59	1	0.25	7	1.14
2017	23	3.13	2	0.59	2	0.59	1	0.25	7	1.14
2018	23	3.13	2	0.59	2	0.59	1	0.25	7	1.14
2019	23	3.13	2	0.59	2	0.59	1	0.25	7	1.14
2020	-		-		-		-		-	-

Source: https://stats.oecd.org/Index.aspx?DataSetCode=EPL_T

Note: Scores range from 0-6 where 0 means an oral statement or a written statement without reason is sufficient for dismissal. For each year, indicators refer to the regulation in force on the first of January. All versions of the employment protection legislation indicator are version 1 apart from the collective dismissals which is version 2. Temporary contracts provide a rank out of 68 countries, while collective dismissals, individual dismissals, and individual and collective dismissals provide a ranking out of 73 countries. For temporary workers (column 4) Canada is tied with the USA.

2. Product Market Regulation Indicators

The economy-wide Product Market Regulation (PMR) indicators measure the regulatory barriers to firm entry and competition through eighteen low-level indicators, ranging from barriers to FDI, to governance of SOEs, price controls, and complexity of regulatory procedures. The OECD Product Market Indicators Database is updated every five years, with the latest iteration being for 2018. Due in part to the change in methodology between 2013 and 2018, Canada fell from 17th out of 36 OECD nations to 34th out of 36 OECD nations, beating only Turkey and the OECD's newest member, Columbia. The 2018 data excludes the United States. In 1998, Canada ranked 10th (see Table 16).

The OECD's PMR Indicators assess the alignment of a country's regulatory framework with internationally accepted best practices. The scale goes from 0-6, where having a lower score means regulations are more competition friendly, and 0 represents international best practices. As shown in Table 17, the Economy-wide PMR Indicator is based on 18 low-level indicators. These low-level indicators are then aggregated into six mid-level indicators, which are in turn aggregated into two high-level indicators and the overall indicator. At each step of aggregation, the composite indicators are calculated as simple averages of their components.

In 2018, Canada scored 1.76 out of 6 on the overall PMR indicator as compared to the OECD average, 1.38. This means that Canada's product market regulation is less competition friendly than that of most OECD countries. However, the score is much closer to 0 and international best practice than to 6 so the absolute level of competition is fairly high.

For the six medium-level indicators, Canada scored best in barriers to trade and investment (1.01), followed very closely by simplification and evaluation of regulations (1.02). The other four indicators were clustered around a score of 2, double that of the two best scoring indicators. Administrative burden on start-ups scored 2.00, followed by involvement in business operations (2.14), barriers to service and network sectors (2.15) and public ownership (2.15). Canada's rankings for these six indicators were not always consistent with the scores. For example, while Canada scored best on barriers to trade and investment, the country ranked only 31st out of 36 countries on this indicator. It appears that most countries also scored very well on this indicator.

For the 18 low-level indicators, Canada scored worst on licences and permits related to the administrative burden of start-ups (4.00), followed by governance of state-owned enterprises (3.90) and public procurement (3.75). Canada's ranking for these indicators was consistent with the poor scores, 34th, 35th and 36th respectively on the three indicators. Canada scored best on tariff barriers and administrative requirements related to start-up with a score of 0.00. Canada ranked first on both indicators.

These OECD ranking are consistent in two instances with the rankings of the DBI pillars. In the starting a business pillar in the DBI Canada ranked 3rd out of 190 countries. OECD data indicate Canada ranked 1st out of 36 countries. In the obtaining construction permits pillar, Canada ranked 64 out of 119. In the OECD product market regulation indicator on licences and permits, Canada ranked 34 out of 36, an even worse performance in relative terms.

Table 16: Canada OECD Ranking for the OECD's Economy-wide Product market Regulation Index

	1998	2003	2008	2013	2018
Rank	10	16	18	17	34
Number of Countries	28	30	32	36	36

Source: https://stats.oecd.org/index.aspx?DataSetCode=PMR#

Table 17: Canada's Ranking and Scores for the OECD's Economy-wide Product Market Regulation Index as compared with 36 other OECD countries, 2018

	Name of Component		2018 Score	2018 Rank
	Overall Indicator		1.76	34
High Level Indicators	Distortions Induced by State Involvement		1.79	24
	Barriers to Domestic and Foreign Entry		1.72	33
Medium Level Indicators	Public Ownership		2.22	24
	Involvement in Business Operations		2.14	36
	Simplification and Evaluation of Regulations		1.02	8
	Admin. Burden on Start-ups		2.00	32
	Barriers in Service & Network sectors		2.15	28
	Barriers to Trade and Investment		1.01	31
Low Level Indicators	Public Ownership	Scope of SOEs	3.04	20
		Gov't Involvement in Network Sectors	1.00	4
		Direct Control	0.94	14
		Governance of SOEs	3.90	35
	Involvement in Business Operations	Price controls	1.37	24
		Command & control regulation	1.31	20
		Public procurement	3.75	36
	Simplification and Evaluation of Regulations	Assessment of Impact on Competition	0.75	5
		Interaction with Interest Groups	1.64	8
		Complexity of Regulatory Procedures	0.67	17
	Admin. Burden on Start-ups	Admin. Requirements for Limited Liability Companies and Personally-Owned Enterprises	0.00	1
		Licenses and permits	4.00	34
	Barriers in Service & Network sectors	Barriers in Services sectors	3.22	31
		Barriers in Network sectors	1.07	8
	Barriers to Trade and Investment	Barriers to FDI	0.97	32
		Tariff Barriers	0.00	1
		Treatment of Foreign Suppliers	1.93	31
		Barriers to Trade Facilitation	1.13	27

Source https://stats.oecd.org/index.aspx?DataSetCode=PMR#;
https://issuu.com/oecd.publishing/docs/can_country_note_-_tot_final?fr=sNTJjNjkzNTk1MQ;
https://www.oecd.org/economy/reform/indicators-of-product-market-regulation/

Note: Scores are from an index scale which ranges from 0-6 where 0 represents international best practices.

F. Concluding Remarks on Alternative Indexes

This section has shown that Canada does better on broad indexes on international competitiveness and economic environment than on narrow indexes of the business environment such as the DBI. Table 18 shows that Canada's average ranking on the six alternative indexes presented in this section in the most recent year was 13th. This lies in contrast to Canada's 23rd position on the DBI.

The OECD Product Market Regulation index is a benchmarking exercise of business regulatory practices. It is closest in orientation to the DBI of all the six alternative indexes discussed. Therefore, it is not surprising that Canada ranks much worse on this metric that on the broader indexes, even worse than on the DBI. When the OECD Product Market Regulation index is excluded from the average of the alternative indexes, Canada rises to 9th position.

It is interesting to note that the positioning of the G-7 countries in terms of the average of the ranking of the six alternative indexes is identical to that of the DBI. Among G7 countries on the DBI, the United States ranked first, followed by the UK, then Canada and Germany close together, and then Japan, France, and Italy. Table 18 shows the same relative positions for G7 countries for the average ranking on the six alternative indexes.

A number of the alternative indexes contain indicators comparable to those found in the DBI. This allows one to ascertain whether the current ranking on certain DBI indicators, and the trend over time, can be confirmed by other sources. The results are mixed. Non-DBI indicators do show that Canada does indeed rank poorly on enforcing contracts and on obtaining construction permits. On the other hand, non-DBI data do not support the DBI finding that Canada ranks poorly in terms of the compliance cost of exporting and importing.

Table 18: Performance of G7 Countries on International Competitiveness Indexes 2020 or most recent year

	IMD World Competitiveness Ranking out of 63 countries	Global Competitiveness Report World Economic Forum out of 137 countries	Cato Institute Human Freedom Index out of 162 countries	Fraser Institute index of Economic Freedom out of 186	OECD product market regulation indicators out of 36 OECD countries	OECD Employment Protection Regulation Indicators out of 37 OECD countries	average
year							
Canada	8	14	6	9	34	7	13
USA	10	2	17	6	-	1	7
UK	19	9	17	13	1	5	11
Japan	34	6	11	20	22	12	17
France	32	15	33	58	28	29	32
Italy	44	30	31	51	15	28	33
Germany	17	7	9	21	4	27	14

Source: IMD out of 63 https://www.imd.org/wcc/world-competitiveness-center-rankings/competitiveness-country-profiles/; http://www3.weforum.org/docs/WEF_TheGlobalCompetitivenessReport2019.pdf; https://www.cato.org/sites/cato.org/files/2021-01/human-freedom-index-2020%5B1%5D.pdf OECD EPR- authors calculations from https://stats.oecd.org/index.aspx; https://stats.oecd.org/index.aspx?DataSetCode=PMR#

Note: the OECD EPR Indicators is an average of Canada's rank on the four sub-indicators calculated by the CSLS. Data for the IMD World Competitiveness Ranking, & the Index of Economic Freedom is from 2020, the Global Competitiveness Report and the OECD's Employment Protection Regulation Indicators is from 2019, and the Cato Institute's Human Freedom Index and the OECD PMR is from 2018.

VI. An Assessment of the World Bank Doing Business Index

This section of the report provides an overall assessment of the DBI. This section has four sub-sections. The first briefly discusses the strengths and weaknesses of composite index in general, as these points apply to the DBI. The second presents the results of three evaluations of the DBI commissioned by the World Bank. The third briefly reviews outside critiques of the DBI. The fourth discusses strengths and weaknesses of the DBI in the Canadian context.

A. Composite Indexes in General

A composite index is defined as an aggregate of a set of indicators based on a weighting scheme. The issue of composite index divides the research community. Some make the case that composite index are extremely useful as they present a bottom line and thereby focus media and public interest on important topics. Others argue that composite indicators are dangerous as they

can be manipulated to present misleading results and that they should not be constructed. There are elements of truth to both views. But the reality is that it is impossible to prevent researchers from constructing composite indexes. What is needed by both the users and the critics of composite indexes is a better understanding of their appropriate uses and their limitations.

1. Strengths of Composite Indexes

Composite indexes take a set of indicators in a database and create a single number for a jurisdiction at a point in time. This bottom line can then be compared both to other jurisdictions and over time. In other words, countries can be ranked internationally on the composite index and trends observed over time within a country. This bottom line focuses attention on a country's performance, which can be a positive incentive to take measures to improve that performance. If the performance is good the country (or government) can use this information to promote itself both to its citizens for political purposes and to persons outside the county to attract investment, trade or migrants. For example, in the 1990s Prime Minister Chrétien frequently made reference to Canada's top ranking on the UNDP Human Development Index as evidence that Canada was "the best country in the world to live in."

A second positive effect of composite indexes is that they create a demand for data to populate the indicators that make up each index. These data may already exist in some form and can be developed where needed to put to use in the composite index and given more prominence. Or new data may be created specifically for the index, as is the case for the data arising from questionnaires used in the DBI. These data development activities are in general a boon for the research community and society in general.

2. Weaknesses of Composite Indexes

The main general criticism of composite indexes is their subjective nature. There are two aspects to this. The first is the choice of indicators that go into a composite index. The second is the weights used to aggregate the indicators into an overall index.

The value of a composite index and its trend over time are a function of what indicators the index contains. Consequently, the domain, components, and indicators of a composite index must be carefully and judiciously selected based on a balanced assessment of what the index is trying to measure. What goes into a composite index determines what comes out of the index.

The weighing of the components used to produce a composite index is crucial for the value of the index. Indeed, for a given set of indicators, very different weighting schemes can produce very different results. The simplest and least controversial way to proceed is to give equal weights to all indicators. This appears the most neutral and balanced approach, even though in reality some

indicators may be much more important than others. There are various methodologies that can be used to develop weights for composite indexes based on the importance of the indicators. However, non-equal weights inevitably lead to debate on the merits of the weights, discussion that often sheds more heat than light.

The World Bank has adopted an equal weights approach with the DBI. The result has been that the DBI has not been criticized for its weights.

B. World Bank Evaluations of DBI

The World Bank has commissioned four evaluations of the DBI. The first by the World Bank's Independent Evaluation Group, was released in 2008. The second, Expert Panel headed by Trevor Manuel was published in 2012. The third, in response to the Romer controversy, by two external consultants was released in 2018. The four, in response to the August 2020 suspension of the DBI, was conducted as a World Bank Group internal audit, was released in December 2020.

1. World Bank's Independent Evaluation Group DBI Evaluation

In 2008, the World Bank's Independent Evaluation Group released the report "Taking the Measure of the World Bank-IFC Doing Business Indicators." It found that the indicators had been highly effective in drawing attention to the burdens of business regulation but could not by themselves capture other key dimensions of a country's business climate, the benefits of regulation, or key related aspects of development effectiveness. The following quotation from the report summarizes well the substance of the report.

> "The Doing Business (DB) exercise is anchored in research that links characteristics of a country's business environment to firm performance, and thence to macroeconomic outcomes. The regulatory framework— the part of the business environment that DB measures— has been shown to be associated with firm performance, but its association with macroeconomic outcomes is less clear. Many other factors affect macroeconomic outcomes, and the direction of causality between regulation and economic outcomes is very difficult to isolate. Since regulations generate social benefits as well as private costs, what is good for an individual firm is not necessarily good for the economy or society as a whole. Therefore, policy implications are not always clear-cut, and the right level and type of regulation is a matter of policy choice in each country.
>
> The DB exercise reflects the limitations inherent in the underlying research. As an exercise in cross-country comparison, DB is not intended to, and cannot, capture country nuances. Firms' investment decisions also depend on variables not measured by the DB indicators, such as the cost and access to finance and infrastructure, labor skills, and corruption.

> Different aspects of regulation have varying degrees of economic importance depending on countries' income levels, legal regimes, and other characteristics. Seven of DB's 10 indicators presume that lessening regulation is always desirable, whether a country starts with a little or a lot of regulation. Reform as measured by the DB indicators typically means reducing regulations and their burden, irrespective of their potential benefits."

The report also noted that the DB indicators primarily measure laws and regulations as they are written. But the relevance of each indicator in a given country depends on the extent to which the law is actually applied, which DB does not aim to measure. Likewise, the pay-off from a particular regulatory reform will depend on how significant a burden the regulation poses in practice. These limitations underscore the need for DB to be interpreted cautiously and used in conjunction with complementary tools such as Investment Climate Assessments.

The report identified a number of weakness related to methodology and data reliability. The DB collects its information from expert informants in each country, mostly lawyers, who provide information free of charge. This process can generate reliable data, but the report points out that three areas of vulnerability need to be addressed.

- The data are provided by few informants, with some data points for a country generated by just one or two firms.

- Although DB makes available a great deal of information about its data and methods, it remains insufficiently transparent about the number and types of informants for each indicator, the adjustments its staff make to the data received from informants, and the changes made to previously published data and their effects on the rankings. DB needs to adequately explain to users the possibilities for errors and biases.

- DB makes much of its country rankings. The rankings have three weaknesses. First, because most of the indicators presume that less regulation is better, it is difficult to tell whether the top- ranked countries have good and efficient regulations or simply inadequate regulation. Second, the small informant base makes it difficult to measure confidence in the accuracy of the individual indicator values, and thus in the aggregate rankings. Third, changes in a country's ranking depend importantly on where it sits in the distribution.

- The DB indicators have motivated policy makers to discuss and consider business regulation issues. As a cross-country benchmarking exercise, DB cannot be expected to capture the country-specific considerations involved in prioritizing, sequencing, and designing policy reforms.

The report concludes a relatively positive note:

> "DB measures the costs but not the benefits of regulation. Despite its methodological limitations, it has contributed to development by providing countries with a basis for international comparisons of their regulatory regimes. It has helped to catalyze debates and dialogue about investment climate issues in developing countries. For the Bank Group, it is a key global knowledge product. Most of the methodological limitations can and should be addressed promptly, lest they undermine its credibility. Inaccurate nomenclature should be rectified, and the DB reports should not overstate claims of causality and the indicators' explanatory power."

As a caveat, the report noted that by prominently recognizing DB's highly ranked countries, the World Bank may inadvertently be signaling that it values reduced regulatory burdens more than other development goals.

The evaluation appears not to have resulted in major changes in the DBI. Many of the concerns identified in this evaluation were raised in the two later evaluations, suggesting that they had not been addressed, or were addressed inadequately, or perhaps could not be addressed due to the nature of the index.

2. Independent Panel of Experts DBI Evaluation

In October 2012, the President of the World Bank Group appointed an independent panel of experts to review a broad range of issues about the Doing Business report. The panel was chaired by Trevor Manuel from South Africa and included as a member Huguette Labelle from Canada. The panel reported in June 2013. Selected observations and recommendations from the report are presented below.

The Panel shared the World Bank perspective that private-sector development is the key to economic growth and poverty reduction and that these goals could not be achieved without a strong government to provide regulation, legislation, and infrastructure. The Panel found that the main issue was whether the Doing Business Report measured the correct indicators, in the correct way. Does a higher ranking imply that a country was on the right track for private-sector development? One view that has been associated with DB is that minimal regulation and very low taxes create the most attractive environment for business. The Panel noted that regulation is necessary to protect societal and environmental interests, and taxes are necessary to provide public services and build infrastructure. The Doing Business project has, rightly or wrongly, been associated with a broad deregulation agenda. Indeed, some argue that seven of the 10 indicators imply that less regulation is unambiguously better.

The Panel suggested that the Bank should continue publishing the Doing Business report, but that its reliability and validity should be revisited. Challenges relating to the relevance of the

information gathered, the aspects being measured, the spectrum of businesses being analysed (currently only small and medium-sized enterprises), and the basis of its comparability across economies with different needs and at differing stages of development.

Specific concerns of the Panel included the following:

- The Doing Business Report has the potential to be misinterpreted because it is not a one-size-fits-all template for development. Empirical evidence on the results of business-regulation reforms captured by the report is mixed and suggestive at best. Correlations between the report's topics and developmental outcomes often do point to a negative association between the regulatory burden and economic development and growth. However, such correlations do not justify a causal interpretation: it is notoriously difficult to establish a causal relationship between such variables at the country level. Moreover, any correlation would only point to what is true "on average". The evidence in favour of specific country reforms is contingent on many auxiliary factors not captured by Doing Business Report topics.

- The Report relies on a narrow information source. It makes far-reaching observations based on data gathered from sources with a relatively narrow perspective on the business environment. The abiding question is whether the experts – primarily lawyers – are the best source for the requisite primary data. A related consideration is whether the questions posed are appropriate given what they are intended to measure.

- The Report only measures regulations applicable to categories of business that can be captured through its methodology. The representativeness of such businesses, and the relevance of these regulations, varies greatly from country to country. The report does not indicate how far its conclusions extend to firms outside its frame of reference.

- The use of aggregate rankings is a contentious issue. Rankings are challenging because they involve aggregating across indicators (topics) – a process that explicitly or implicitly involves a value judgment of what is "better" for doing business and how much better it is – and because small revisions or inaccuracies in primary data can significantly change a country's rankings.

The panel pointed out that the World Bank's views on the objectives of economic growth and development, and the best way to attain these objectives, are continuously evolving. For example, in its World Development Report 2013, the Bank puts forward a nuanced view on labour regulations, suggesting that governments should strive for a balanced combination of labour regulation and management practice that is unique to their country's stage of development. This message differs markedly from the perspective associated with DB reports.

The Panel made a number of recommendations, including:

1. Retain the Doing Business Report as an annual World Bank flagship report.
2. Remove the aggregate rankings table. The decision to retain or drop the aggregate rankings table is the most important decision the Bank faces with regard to the Doing Business report.[26]
3. Change the report's title. This is one way the report can clarify its limitations and be more clearly understood.
4. Implement a peer-review process. This would improve the report's quality and provide a much-needed safety net. The Panel recommends forming a single body with external representation in this regard.
5. Increase the report's level of transparency.
6. Align the report with the World Bank's mandate and other flagship publications. Moving the report team from the IFC to the Research Department would optimise use of the Bank's economic analysis and research capacity and help ensure that the message contained in the report synchronises with the Bank's other flagship products.

The World Bank accepted four of these six recommendations. It retained the DB, moved the DB from the IFC to the Research Department, adopted an internal peer review process, and increased the level of transparency by posting more documents on the World Bank website. However, it did not drop the ranking table, nor change the title of the report.

3. The Third World Bank Evaluation in Response to the Romer Controversy

In 2018, World Bank Chief Economist Paul Romer raised concerns about the validity of the World Bank's Doing Business indicators, suggesting that World Bank staff might have manipulated the indicators for Chile (and other countries) for political reasons. The incident resulted in Paul Romer leaving the World Bank.

In response to Romer's criticism, the World Bank commissioned an audit on the integrity of the DBI by Randall Morck and James Chenxing Shou from the University of Alberta (Morck and Chou, 2018) They investigated the raw data and calculations of the Doing Business 2015, 2016 and 2017 indicators in 2015, 2016 and 2017 for Chile and twelve other economies. They concluded:

[26] Removing it would defuse many of the criticisms levelled against the report but would diminish the report's influence on policy and public discussion in the short term. In the long term, however, doing so may improve focus on underlying substantive issues and enhance the report's value. The scores (cardinal values) for each of the indicators should be emphasised. The country rankings (ordinal values) for each indicator could be maintained. Even without the aggregate ranking, reform-minded countries would still be able to benefit from the primary data collected in the report.

> "In every case we checked, the indicators are based on unaltered survey data, faithfully entered into an automated data management system, and are mechanically constructed free of manipulation by World Bank staff. The Ease of Doing Business indicators for Chile and for the other economies we examined were not subject to manipulation by World Bank staff."

Morck and Chou did have a number of recommendations to improve the DBI methodology. They pointed out that the survey questionnaires and how the indicators are calculated have changed frequently. While these changes may have sound justification, they can result in abrupt changes in country rankings thereby confusing users and reducing the value of the indicators. While recognizing that there are difficult trade-offs between completeness, current relevance and comparability over time, Morck and Chou suggested the World Bank minimize methodology changes except to fix confirmed problems with existing methodology. They also suggested that the World Bank add new indicators to cover additional aspects of the business environment, rather than make methodological changes to existing indicators.

Morck and Chou conclude that:

> "Doing Business indicators are one of the World Bank's most important contributions to research and public policy. Were the indicators unimportant, controversy about them would not attract media attention. Rather, the World Bank's success in credibly tracking quantifiable improvements and backsliding in the ease of doing business in different economies makes concerns about its methodology global news. That importance now also encompasses the methodologies used to calculate the indicators. All this affirms the broader success of the World Bank's Doing Business initiative".

4. World Bank Group's Internal Audit in response to the temporary suspension of the DB Report in August 2020

On August 27, 2020 World Bank management announced reports of data irregularities in the Doing Business 2018 report (published October 2017) and the Doing Business 2020 report (published in October 2019). The announcement called for a systematic review and assessment of data changes that occurred subsequent to the institutional data review process for the last five Doing Business reports. Management also requested that the World Bank Group Internal Audit (GIA) perform an assurance review of data integrity in the production process of the Doing Business Report and verify management's review of data irregularities in the Doing Business Reports from 2016 to 2020 (World Bank Group, 2020c).

The internal audit ordered by the World Bank in August of 2020 confirmed data irregularities in four countries: China, Saudi Arabia, Azerbaijan, and the United Arab Emirates. These irregularities led to a seven-place increase in ranking for China (ranked 78th prior to corrections and 85th after in 2018), and a one place increase in ranking for Saudi Arabia (62nd

prior to corrections, 63rd after). Saudi Arabia's status as a top improving economy was also negatively affected. The irregularities did not affect the United Arab Emirates overall ranking and negatively affected Azerbaijan's rank by 6 places and excluded them from the list of top 10 improvers in the 2020 DB Report (World Bank Group, 2020d).

These irregularities were reported to senior management by Doing Business team members and triggered the pause of the Doing Business report announced August 27, 2020 as well as the review. The review process did not identify any further specific data irregularities beyond those affecting the four countries mentioned above. These data irregularities occurred after the Doing Business data had been circulated for Bank-wide Review just prior to finalizing the data for publication (World Bank Group, 2020c).

The publication of the audit in December lifted the publication suspension implemented in August of 2020, with the publication of the Doing Business 2021 report scheduled for release in March of 2021. While unrelated to the specific data irregularities, the Bank announced plans to launch an external review of the Doing Business methodology with the goal of strengthening the product and its usefulness to stakeholders on December 16, 2020 (World Bank Group, 2020b). Findings are expected mid-2021.

The audit concludes that the absence of a safe speak-up environment for the reporting of management override of controls has resulted in data irregularities. Additionally, the underlying internal controls to safeguard the integrity of data throughout the production of the DB report are insufficient.

The report highlights workplace environment concerns, stating that:

> "Pressure from stakeholders as part of the DB report production and publication process has not been effectively managed. The DB team members reported undue pressure, both directly and indirectly by Bank management to manipulate data in 2017 during the DB18 production process and in 2019 during the DB20 production process. The lack of a safe speak-up environment within the DB team led to a fear of retaliation for those who would escalate and report pressures to manipulate data. This contributed to the compromise of data integrity in the DB report.
>
> Out of the 15 staff in the DB team interviewed by GIA, 9 staff indicated that they had been directly or indirectly pressured to manipulate data. Out of the 9 staff who reported being pressured, 8 staff said they manipulated data. At the time, the DB team did not escalate to DEC management and Bank Senior Management, and report pressures encountered as part of the DB18 and DB20 report production to the internal accountability mechanisms of the World Bank Group (WBG), due to fear of retaliation. The DB team eventually reported the internal pressures to the internal

accountability mechanisms of the WBG and to one of the DEC Directors during the DB21 production cycle." (World Bank Group, 2020c:7)

The audit notes that the 8 staff who said they manipulated data reported 9 potential data irregularities to DEC management in June of 2020, months after the August 2019 publication of the 2020 DB report. These 9 irregularities corresponded to the 9 out of 112 changes made after the data was circulated for BWR processes for the DB18, DB19 and DB20 reports and were all made without sufficiently documented rationale for change. The report does assess that frequent personnel changes within DEC management and the absence of defined roles and responsibilities resulted in ambiguity as to whom pressure to manipulate data should be reported.

The audit also found that:

> "For DB20, the scoring method for the 'Protecting Minority Investors' (PMI) indicator was changed by the then DEC Senior Director in late stages of the production cycle even though the timing of the change did not conform with the practice of advance consultation and dissemination of methodology change. This change altered the scoring for this indicator and the overall ranking of countries. The decision to change the scoring method was not shared with relevant stakeholders outside the DB team before the changes were applied." (World Bank Group, 2020c, p. 7)

The report outlined two other significant concerns and one moderate concern in its overall conclusion.

- "Roles and Responsibilities: The definition of roles and responsibilities for consultation, review, approval and clearance of the DB report production and publication beyond the DB team is incomplete. Although the DB team followed the established BWR process, the DB reports were published in the past without fully defined roles and responsibilities, thereby risking the integrity of the published data. *Significant.*

- Controls over Data Changes: The controls over data changes in the DB Report production life cycle are not sufficient to preserve data integrity. In addition, access control in DMS is not sufficiently designed to enforce segregation of duties, which has led to some users having excessive access, non-commensurate with their job responsibilities. As a result, such controls might not detect and prevent compromises to data integrity. *Significant*

- Procedures and Guidance: Standards and processes to document the inherent judgments involved in the production of the DB Report and to safeguard data integrity are not sufficiently defined to enable consistency. As a result, decisions related to the production of the DB report are sometimes open to judgement rather than being guided by documented procedures and guidance. *Moderate*" (World Bank Group, 2020c, p. 6)

The DEC management has started to address the issues identified in the report. For instance, they have implemented annual ethics training sessions in collaboration with Ethics and Business Conduct (EBC) to explain the resources available to the DB team to report pressures in the future. Additionally, a new director was appointed in November 2020 with an explicit mandate to strengthen data integrity.

C. Critiques of the DB Report from the academic and NGO community

A number of critiques from academics and the NGO community on the methodology and the impacts of the DB Report are discussed below. This section is divided into four subsections: methodological concerns, critiques of the political impact of the DBI, critiques of the DBI's usefulness as an international benchmarking tool and lastly critiques of the DBI as a driver or international development. The World Bank is not unaware of these critiques, and many were mentioned either directly or indirectly in the World Bank's internal and external evaluations of the DBI.

1. Methodological Concerns

Six methodological concerns were identified: first, the often-insufficient quality and quantity of the contributors consulted; second, the frequent methodological changes which lead to inconsistency in the rankings over time; third, the exclusion of several variables that are needed to provide a more complete picture of a country's business context; fourth, the DB assumption that fewer regulations are implicitly better; fifth, the often significantly different results between firm-level enterprise surveys and the DBI's rankings; and, lastly, the inadequate representation of business reforms in certain countries because of the DBI's one size fits all approach that ignores local context.

The first critique is that too few experts are consulted to provide an accurate or credible assessment of a country's business climate. Holden and Pekmezovik (2020) found that the average number of contributors per topic was approximately seven, and in smaller countries this number was much lower. In addition, the quality of the contributors can be poor. The authors found that

some of the experts consulted had insufficient knowledge of business reforms because their countries had not undertaken them or were biased due to personal interests.

The second critique is that frequent methodological changes lead to inconsistency in the ranking over time. The DB Index is 'recalibrated' each year in response to changes to the measurement of its indicators and the introduction of new indicators intended to present a more accurate assessment of the business environment. This means that the changes in the ranking over time are not necessarily due to reforms and may result from the World Bank's methodological 'recalibration'. Therefore, the rankings are not always directly comparable year to year and closer examination is required to determine the whether the changes in rankings over time are artificial or reform based. For example, Sanderfer and Wadhwa (2018) from the Centre for Global Development (CGD), an NGO focussed on reducing global poverty, closely examined the change in India's DBI ranking over time. They concluded that methodological changes rather than reforms were responsible for the increase in India's rankings from 142nd position to 100th between 2015 and 2018.

Swings in rankings for specific pillars can also be drastic. For example, South Africa ranked first in the getting credit pillar in 2012 and 2013. However, in 2014, South Africa's ranking fell to 28th, followed by a drop to 50th in 2015. The 2020 report ranked South Africa 80th for the pillar. Swings of this magnitude bring into question the accuracy of the measurement of the components of each pillar and thereby the credibility of the DB index as a whole (Lawder and Wroughton, 2018).

Third, Holden and Pekmezovic (2020) underscored the omitted variable bias to the rankings. The authors note that several factors like level of government corruption, gender discrimination, competition policy, deficient infrastructure and level of foreign investor protections are not included in the DBI.

Fourth, the DBI assumes that fewer regulations are implicitly better. Arrundaa (2008) recognized that simplifying business formalisation and eliminating outdated formalities is often a good way of improving the institutional environment for firms. However, he argues that the World Bank's Doing Business project is harming such policies by promoting a reform agenda that advocates for deregulation even in countries lacking functional business registers, so that the reformed registers keep producing valueless information, but faster. He argues its methodology also promotes biased measurements that impede proper consideration of the essential trade-offs in the design of formalisation institutions. The CGD similarly highlighted that the reports include the costs of regulation but fail to include the benefits leading to an inaccurate representation of local business contexts (Sandefer and Wadhwa, 2018).

Fifth, a study undertaken by Hallward-Drienmeir and Pritchett (2015) discusses the vast discrepancy between the findings of the DBI's ranking and the results of the Firm-level Enterprise Surveys produced by the World Bank. Much of this discrepancy can be attributed to the fact that the DBI's indicators are based on de jure requirements rather than de facto business practice and therefore do not accurately assess a countries business environment. The Bretton Woods Project (2017), a non-governmental organization working on trade and development issues with a critical perspective on the World Bank and the IMF, echoed this complaint, identifying de facto regulatory environments including tax avoidance schemes and legal requirements as exclusions that are particularly significant to the business climate.

Lastly, the DB index sometimes fails to adequately capture business reforms because of its "one size fits all approach to doing business" that ignores the local context. For example, case studies undertaken by Holden and Pekmezovic (2020) found that despite adopting business reforms closely based on those of New Zealand, the DBI's leader in the 'starting a business' pillar, Pacific Island countries are not ranked comparably to New Zealand on the pillar. Additionally, a case study comparing similar reforms in Samoa and the Solomon Islands resulted in diametrically opposite movements in the rankings. The case studies of reforms in Pacific Island countries done by Holden and Pekmezovic (2020) find that the DBI fails to incorporate country specific reforms into the DBI. However, due to the international nature of the ranking and therefore the necessity of a ones size fits all approach, incorporating country specific reforms is a virtually unachievable objective. This close examination of Pacific nation states' business reform additionally highlights inaccuracies in the World Bank's Doing Business country profiles which have mis-dated reforms and failed to record relevant business reforms that have been implemented.

2. Critiques of the political impact of the DBI

The DB Report is a flagship publication of the World Bank and some argue that the report is used to influence the way countries implement changes to business climates. The report is politically motivated and promotes a free-market capitalist development strategy (Chang, 2013). It is argued that the rankings have become a political tool which can be used to support or discredit specific regimes (Sandefer and Wadhwa, 2018). The Centre for Global Development suggests that the World Bank behaved irresponsibly by writing articles touting India's jump in ranking in 2017, despite being aware that the jump was almost exclusively due to their own methodological manipulations. The DB rankings have been used in India as tools to promote Prime Minister Modi's government. Articles published in local press suggest that the World Bank had "endorsed Modi's reform credentials," (Sandefer and Wadhwa, 2018). This support lent international credibility to Modi. However, Indian civil society stressed that "reforms made under the 'guidance of DBR analysis have cause significant harm to vulnerable communities." (Bretton Woods Project, 2020).

While the rankings have been used to promote countries and governments, a fall in rankings has also been used to discredit regimes, such as in Chile (Bretton Woods Project, 2020). Estaban Silva from Chile's Fundacion Constituyente XXI has been highly critical of the political nature of the rankings, stating:

> "the publication of the DBR should cease… as we have no doubt that it will again only be used to the benefit of those who seek to maintain and reproduce the country's current neoliberal model and to halt the changes demanded by the vast majority of citizens," (Bretton Woods Project, 2020).

This argument is supported by former World Bank Chief Economist, Paul Romer, who resigned over the integrity of the DB index in 2018, suggesting the rankings were politically motivated, and were intentionally discrediting Chile's socialist president.

3. Critiques of the Doing Business Index's usefulness as an international benchmarking tool

Broome, Homolar and Kranke (2018) make the case that benchmarking exercises by international organizations represent a significant source of indirect power in world politics. They examine two prominent cases in which international organizations seek to shape the world through comparative metrics: (1) the World Bank Doing Business ranking; and (2) the OECD FDI Regulatory Restrictiveness Index. They argue that the legitimacy attached to these benchmarks because of the expertise of the international organizations that produce them is highly problematic for two reasons. First, both benchmarks oversimplify the evaluation of relative national performance, misrepresenting contested political values drawn from a specific transnational paradigm as empirical facts. Second, the metrics entrench an arbitrary division in the international arena between 'ideal' and 'pathological' types of national performance, which (re)produces social hierarchies among states.

McCormack (2018) critically examined the role of law in promoting economic development and argued that the most influential 'law and development' agenda—the World Bank Doing Business (DB) project—is not fit for purpose and should be replaced. He argues that the DB project and associated rankings embody a set of ideological and technical preferences whose relationship with economic development is at best uncertain. Context and cultural sensitivity are all important in the 'real' world and reducing complicated matters to a single ranking is not compatible with bringing about genuine improvements in the legal framework for doing business.

Despite the above criticism, this international legitimization is highly influential because with increases in ranking comes increases in foreign direct investment. Anderson and Gonzalez

(2012) found FDI flows are higher for economies with higher DBI ranking, even when other factors influencing FDI are factored in. A difference of 1 percentage point in regulatory quality was found to be associated with a difference in annual FDI flows of US $250-500 million. They argue that this relationship was in part causative as the laws, regulations and practices captured by the DBI influence FDI flows. Corcoran and Gillanders (2015) also found that DBI rankings play a role in attracting FDI in middle-income countries, but not in OECD countries and sub-Saharan countries.

4. Critiques of the DBI as driver of international development

The Bretton Woods Project has provided a trenchant critic of the DBI (Bretton Woods Project, 2013, 2017, 2018, 2020). The Bretton Woods Project highlights negative consequences of the DB Index. First, the organization suggests that the DB Index is failing small domestic businesses (Bretton Woods Project, 2013). It argues that the DBI encouragement of tax reduction and reduction of barriers to foreign investment is flawed. They argue that a major problem for many African countries is getting multinationals and larger companies to pay any tax at all. This creates a situation where small local companies pay a higher tax rate than larger multinational producing similar products, and leaves governments without resources to support the development of domestic small businesses. Second, the article is critical of the registering property pillar. They argue that property rights are addressed inappropriately, as the pillar 'registering property' promotes formal titling and ease of title transfer. This in some cases facilitates land grabs whilst undermining traditional community rights and access which are important for poor men and women's livelihoods.

The Oakland Institute, a California-based policy think tank focussed on social, economic, and environmental issues, is equally critical of the Ease of Doing Business Index from a development perspective (2014, 2020). Their reports echo the Bretton Woods Project's criticism of the DBI because of its negative effects on low-income rural economies. They argue that the DB Report is actively promoting deregulation, benefiting multinational corporate interests at the expense of local citizens (Oakland Institute, 2014). The Oakland Institute's report focuses on the effects on the agricultural sector, finding that the DB rankings have the "collateral effect of facilitating land grabbing by advocating for 'protection of investors' and property reforms that make land a marketable commodity and facilitates large-scale land acquisitions." (p. 4). It is then argued that the DBI does not give adequate weight to its effects on local economies and that advocating for a wholesale importation of "modern" land registration systems without understanding and accommodating the complex systems that already exist leads to confusion, tension and even conflict.

These concerns were reiterated by other sources. For example, following the suspension of the DB Report in August of 2020, the Bretton Woods Project (2020) highlighted complaints from

civil society of the anti-tax, anti-labour and deregulatory biases of the DBI and its impact on the wellbeing of citizens. In a 2018 article, the Bretton Woods Project underscores the stark contrast between the Doing Business Index and other development indexes. Among these other indexes is Oxfam's Commitment to Reducing Inequality Index (CRI) which monitors efforts by countries to reduce the gap between rich and poor (Oxfam, 2020). The Bretton Woods project found that top performing countries for the DBI's paying taxes pillar, including Singapore, Bahrain, Latvia, Lithuania, and Mauritius rank close to the bottom of the CRI's tax pillar (2018). This comparison highlights the fact that the DBI's trust runs counter to efforts to reduce inequality and to address some of the pressing concerns in the 21st century, namely inequality, climate change and access to health care.

Guild (2020) also voices ethical concerns in a piece entitled "Why the World Bank Torched its Doing Business Ranking". He criticizes the ranking for its libertarian bias suggesting that it ignores "deeper structural, social or political issues – as well as the benefits of certain regulations." (p. 2) He argues that the design of the rankings and the importance placed on the rankings in terms of receipt of foreign investment encourage countries to game the system rather than make real policy changes.

This concern was reiterated by the CGD who suggest that in their current form, rankings create incentives for countries to not only manufacture cosmetic improvements but also for countries to implement policies that conform with the World Banks vision for economic development, regardless of what may or may not be in the best interest of citizens (Sandefer and Wadhwa, 2018). This competition to game the ranking has even lead countries including China, and Saudi Arabia to pressure World Bank officials to deliberately alter data, thereby increasing their international rankings and generating positive international press at a time when leaders were under widespread scrutiny over human rights abuses (Sandler, 2020).

In a press release following the World Bank's suspension of the DB Index, Frederic Mousseau, a policy director at the Oakland Institute was quoted as saying: "The Doing Business Report drives an insidious race to the bottom where policy makers around the world are competing on being more attractive to private investors instead of protecting the environment and the wellbeing of their citizens," (Oakland Institute, 2020)

The 280-organization strong Our Land Our Business campaign comprised of NGO's, unions, farmers and consumer groups from over 80 countries that calls for the end of the Doing Business Report. This group unifies opposition to the DB Report and advocates for the permanent suspension of the DB Report.

Overall, a review of the literature reveals numerous flaws in the DBI's methodology and significant opposition to the DB report, even from within the World Bank.

D. Assessment of the DBI Based on the Canadian Context

The DBI represents a massive global benchmarking exercise for best practices in business operations. It covers 190 countries with input from more than 15,000 national experts. Only an international organization with the World Bank's ample resources, expertise and credibility could undertake such an ambitious project. Though its detailed questionnaires on business practices in its ten pillars, the DBI has collected comprehensive and original information for over 15 years on business practices in almost all countries of the world, allowing the identification of best and worse practice. Countries can, and do, use this information to take action to improve their performance.

The DBI is far from perfect, as has been seen. But the World Bank should be congratulated for taking the initiative to create the DBI in the early 2000s. One can criticize various aspects of the DBI, but the world knowledge base on business practices has advanced considerably because of the DBI. This represents a major accomplishment.

The World Bank is well aware of the criticisms of the DBI, which are inevitable for any project as ambitious and as ideologically charged as the DBI. It has commissioned four evaluations to address perceived DBI shortcomings and has followed up on the some, but not all recommendations made in the evaluations. Within the World Bank there have been different views on the validity and usefulness of the DBI, as seen in the Paul Romer incident. Indeed, the future of the DBI is uncertain given that in August 2020 the World Bank suspended the Doing Business Report.

According to the August 27, 2020 World Bank press release:

"A number of irregularities have been reported regarding changes to the data in the Doing Business 2018 and Doing Business 2020 reports, published in October 2017 and 2019. The changes in the data were inconsistent with the Doing Business methodology.

The integrity and impartiality of our data and analysis is paramount and so we are immediately taking the following actions:

- We are conducting a systematic review and assessment of data changes that occurred subsequent to the institutional data review process for the last five Doing Business reports.
- We have asked the World Bank Group's independent Internal Audit function to perform an audit of the processes for data collection and review for Doing Business and the controls to safeguard data integrity.

We will act based on the findings and will retrospectively correct the data of countries that were most affected by the irregularities."

It is possible that the DBI will be killed. But such a decision seems unlikely given its many advocates, the resources that have been invested in the DBI, and its brand recognition and visibility. More likely, methodological changes will be made to address the data irregularities and possibly other criticisms.

The detailed analysis of the DBI in Canada earlier in this report revealed a number of concerns that are highlighted below.

- There appear to be a number of data irregularities for the DBI indicators for Canada. The most important was the massive increase in the cost of exporting and importing between 2007 and 2009. Other indicators remained unchanged for long periods and then inexplicably manifested an abrupt change. One would expect indicators would have some year-to-year variation given that there is a changing set of experts who complete the questionnaires. In addition, one might expect most changes in practices would be more gradual, unless a specific regulation is changed. When there are major changes in a pillar or an indicator one might expect greater discussion of the causes in the DBI reports. For example, no explanation was provided for the massive deterioration in Canada's rankings for getting electricity and obtaining construction permits.

- The DBI weights all pillars and indicators equally. But they are not equal in importance for the overall ease of doing business in Canada. An assessment of what really matters in terms of the DBI results for Canada would add great value to the project.

- The Toronto-centric focus of the DBI results for Canada is a concern. The results may not apply outside Toronto because of differences in provincial and municipal regulation. For example, Hydro Toronto takes a long time to make an electricity connection and the City of Toronto Planning Authority appears slow in granting construction permits. The poor performance on these two indicators alone drags down Canada's DBI ranking. One might expect that many other municipal governments would do better on the two indicators.

- The DBI includes both ordinal measures or rankings and cardinal measures or absolute values for indicators and or scores. The focus of the DBI is on ranking, not absolute changes in the indicators. This can lead to mixed signals. At times, Canada's ranking can decline when Canada is performing better in absolute terms on the indicator. This is because other countries are improving at a faster rate than Canada. Both changes in rankings and in the absolute value of indicators are relevant. Rankings imply that the ease of doing business among countries is a zero-

sum game, with the improvement in the DBI ranking of one country offset by a deterioration in the ease of business in another country. In reality, the concept of ease of doing business is a positive sum gain since all countries can improve their ease of doing business in absolute terms.

- The pool of experts that participate in the Doing Business survey for Canada is confined to lawyers. Yet other professionals involved in business, including accountants, engineers, economists and MBAs have knowledge of business practices and could answer the questionnaire from their perspectives, potentially enriching and improving the results.

VII. Conclusion and Recommendations

This report has provided a detailed analysis of the DBI for Canada, with a focus on the four pillars in which Canada performs poorly, namely getting electricity, dealing with construction permits, enforcing contracts, and trading across borders. The key conclusion of this study is that the DBI provides much insight on business regulation in Canada and represents a valuable contribution to our knowledge of business practices.

The report was motivated by the observations that Canada's current ranking on the DBI at 23rd is below that of other well-known international competitiveness and economic environment rankings and that, unlike the trend in these metrics, the DBI has fallen significantly in Canada from 4th in 2007. Canada appears not to do as well in the area of business regulations and practices as in broader economic indicators. This appears to explain the difference between the ranking of the DBI and other indexes. Canada's low ranking on the OECD product market regulation index, which is similar to the DBI, appears to support this interpretation. The deterioration of Canada's ranking over the 2007-2020 period reflects much longer times needed to enforce contracts and to obtain building permits. If these trends can be confirmed from other sources, this is worrisome, although the actual damage done to overall business sector is unclear and needs to be quantified.

Overall, the benchmarking of Canadian performance related to the ease of doing business relative to other countries is very informative. But some of the results appear strange and merit further investigation. The DBI results for Canada, at the national level, appear not always meaningful. Indeed, the suspension of the DBI by the World Bank because of data irregularities in August 2020 supports this caution. The results of this investigation should be awaited before a definitive assessment is given on the validity and reliability of the DBI. Even if there is a positive assessment from the World Bank on the DBI, rankings should always be approached with care given the methodological and data complexities in this type of world-wide benchmarking exercise.

The DBI covers 190 countries or economies. Many of these economies perform very poorly on the DBI and have little relevance for Canada. The World Bank categorizes the 190 countries in the DBI into four groups based on the ease of doing business: very easy (1st to 53rd rankings), easy (54th to 97th rankings), medium (98th to 147th ranking) and below average (148th to 190th ranking). At 23rd Canada is in the very easy to do business group. This is the group that is most relevant for Canada. It includes most OECD countries and all G7 countries except Italy. These are Canada's peer nations. Countries within this peer group that are especially relevant for benchmarking purposes include the United States, by far our largest trading partner, and Australia, often considered Canada's twin given our common history as colonies of the UK and our similar economic structures based on natural resources.

Based on the preceding analysis of the DBI, the report puts forward seven recommendations related to the DBI that Global Affairs may wish to consider.

- The DBI, and Canada's performance on DBI pillars, receives considerable international attention. Consequently, Global Affairs officials should closely monitor this performance and be aware of the strengths and weaknesses or limitations of the DBI.

- DBI pillars and indicators where Canada does well should be a source of pride to Canadians. Global Affairs should consider making better known Canada's performance in these areas in its outreach to the international community. An excellent example is Canada's stellar ranking on starting a business.

- DBI pillars and indicators where Canada performs poorly can potentially have a negative effect on Canada's image abroad as a country with a favourable environment for doing business. Global Affairs should conduct further investigation of the reasons for the poor performance of the indicators that hurt Canada's DBI ranking, as identified in this report. In particular, is this poor performance a real phenomenon or a statistical artifact due to data mis-measurement issues. This information can then be used to explain the performance internationally.

- In cases where Canada's poor performance on certain DBI pillars and indicators is real and represents an issue of national concern that cannot be justified by society's overall interests, Global Affairs should bring this weakness in the environment for doing business to the attention of the responsible government department or agency, pointing out the deleterious effect on Canada's international reputation. Examples of Canada's derisory performance include our 100th place on the enforcing contracts pillar and 124th place in getting electricity.

- Because of Canada's federal system, DBI ranking for Canada based on regulatory frameworks for Toronto and Ontario may not apply to other provinces or municipalities. The availability of rankings for DBI pillars and indicators for all provinces and territories would greatly increase our understanding of how the ease of doing business differs by jurisdiction in this country. Although such a benchmarking project is outside the ambit of Global Affairs, the department could encourage others to undertake it, especially for DBI pillars and indicators that appear problematic.

- Many consider internal trade barriers a serious constraint on economic growth in Canada. Yet the DBI includes no indicators on how the regulation of internal trade in this country compares with that in other countries. Given the prominence of this issue, Global Affairs might consider encouraging the World Bank to include information on internal trade regulation in the DBI.

- The expertise that the World Bank has developing in the benchmarking of country practices related to the ease of doing business can be applied in other areas. For example, an independent, authoritative benchmarking exercise on the ease of obtaining different types of health services (e.g., wait times, cost, quality) would be relevant for both developed countries such as Canada and for developing countries. Global Affairs could identify subject areas where international benchmarking exercises would be useful and consult with the World Bank on the possibility of developing such projects.

VIII. References for Doing Business Report

Acemoglu, D., & Robinson, J. (2012). *Why nations fail: The origins of power, prosperity and poverty*. New York: Crown Publishers.

Anderson, J., & Gonzalez, A. (2012). Does *Doing Business* matter for foreign direct investment? In *World Bank, Doing Business 2013: Smarter regulations for small and medium-size enterprises* (pp. 47–50). Washington, DC: World Bank Group. Retrieved from https://www.doingbusiness.org/en/reports/case-studies/2012/does-doing-business-matter-for-foreign-direct-investment

Arruñada, B. 2009. "How Doing Business Jeopardises Institutional Reform." European Business Organization Law Review 10 (2009): 555-574.

Berg, Janine and Sandrine Cazes (2007) "The Doing Business Indicators: Measurement issues and Political Implications," Economic and Labour Market Paper 2007.9, Economic and Labour Market Analysis Department, International Labour Organization.

Besley, T. (2015). "Law, regulation, and the business climate: The nature and influence of the World Bank Doing Business project." *Journal of Economic Perspectives*, **29**(3), 99–120. Retrieved from http://www.jstor.org/stable/43550123, https://doi.org/10.1257/jep.29.3.99

Bretton Woods Project (2013) "A bad business: Bank divisions on Doing Business revealed," October 3 https://www.brettonwoodsproject.org/2013/10/bad-business/

Bretton Woods Project (2017) "World Bank's Doing Business Report," July 3 https://www.brettonwoodsproject.org/2017/07/world-banks-business-report/

Bretton Woods Project (2018) "Doing Business 2019: World Bank's tunnel vision obscures calls for reform," December 6, https://www.brettonwoodsproject.org/2018/12/doing-business-2019-world-banks-tunnel-vision-obscures-calls-for-reform/

Bretton Woods Project (2020) "As World Bank pauses Doing Busines Reports, pressure mounts for it to be permanently scrapped," October 6, https://www.brettonwoodsproject.org/2020/10/as-world-bank-pauses-doing-business-report-pressure-mounts-for-it-to-be-permanently-scrapped/

Broome A, Homolar A, Kranke M. (2018) "Bad science: International organizations and the indirect power of global benchmarking,". *European Journal of International Relations*. 2018;24(3):514-539. doi:10.1177/1354066117719320

Business Council of Canada (2019) "A Better Future for Canadians: Report and Recommendations on the Task Force on Canada's Economic Future" https://thebusinesscouncil.ca/app/uploads/2019/10/A-better-future-for-Canadians-Report-and-recommendations-3.pdf

Chang, Christina (2013) "At Issue: The Doing Business review; a test of leadership," Breton Woods Project, June https://www.brettonwoodsproject.org/update/86/bwupdt86_ai.pdf

Chaudhary, Archang (2020) "World Bank Probes Irregularities in Ease of Reports Data." Bloomberg.

Corcoran, A., & Gillanders, R. (2015). Foreign direct investment and the ease of doing business. *Review of World Economics*, **151**(1), 103–126. https://doi.org/10.1007/s10290-014-0194-5

Fogler and Rubinoff (2020) "Doing Business in Canada, 2020," September http://www.foglers.com/uploads/press/file/797/Doing_Business_In_Canada_September_2020.pdf

Guild, James (2020) "Why the World Bank Torched its 'Ease of Doing Business' Ranking" *The Diplomat*, October 7 https://thediplomat.com/2020/10/why-the-world-bank-torched-its-ease-of-doing-business-ranking/

Haidar, J., & Hoshi, T. (2015). *Implementing structural reforms in Abenomics: How to reduce the cost of doing business in Japan (NBER Working Paper No. 21507)*. Cambridge: National Bureau of Economic Research. Retrieved from https://www.nber.org/papers/w21507

Hallward-Driemeier, M., & Pritchett, L. (2015). How business is done in the developing world: Deals versus Rules. *Journal of Economic Perspectives*, **29**(3), 121–140. https://doi.org/10.1257/jep.29.3.121

Holden, Paul and lma Pekmezovic (2020) "How Accurate are the Doing Business Indicators? A Pacific Issue case study," *Asia & the Pacific Policy Studies*, Volume 7, Issue 2, pp. 247-261.

IMD (2020) "IMD World Competitiveness Yearbook Country Profile: Canada" file:///C:/Users/Andrew%20Sharpe/Downloads/ca%20(3).pdf

Independent Evaluation Group (2008) "Doing Business: An Independent Evaluation: Taking the Measure of the World Bank-IFC Doing Business indicators, World Bank http://ieg.worldbankgroup.org/sites/default/files/Data/reports/db_evaluation.pdf

Independent Doing Business Report Review Panel. (2013). Independent panel review of the Doing Business report: June 2013. Retrieved from http://pubdocs.worldbank.org/en/237121516384849082/doing-business-review-panel-report-June-2013.pdf

Lawder, D., and Wroughton, L. (2018). World Bank economist Paul Romer quits after Chile comments. Reuters, January 25 Retrieved from https://www.reuters.com/article/us-worldbank-economist-romer/world-bank-economist-paul-romer-quits-after-chile-comments-idUSKBN1FD38Y

Lithuanian Free Market Institute (2020) "Employment Flexibility Index: EU and OECD Countries, 2020"

Manuel, Trevor (2013) "Independent Panel Review of the Doing Business Report" June 24, http://pubdocs.worldbank.org/en/237121516384849082/doing-business-review-panel-report-June-2013.pdf

McCormack, Gerald (2018) "Why 'Doing Business' with the World Bank May Be Bad for You," *European Business Organization Law Review*, Vol. 19, pp. 649-676 https://link.springer.com/article/10.1007/s40804-018-0116-4

Morck, Randall and James Chenxing Shou (2018) "On the Integrity of the 'Ease of Doing Business" Indicators," Final Report. June 18 prepared for the World Bank. https://www.doingbusiness.org/content/dam/doingBusiness/media/Miscellaneous/Audit/Doing-Business-External-Audit-2018_Full-Report.pdf http://documents1.worldbank.org/curated/en/134831608154762985/pdf/Data-Integrity-in-Production-Process-of-the-Doing-Business-Report-Assurance-Review.pdf

Mousseau, Frederic (2018) "The wrongdoings of the Doing Business Rankings and the corporate take-over of agriculture," Bretton Woods Project, March 14 https://www.brettonwoodsproject.org/2018/03/wrongdoings-business-rankings-corporate-take-agriculture/

Oakland Institute (2014) "Willful Blindness: How the World Bank's Country Rankings Impoverish Smallholder Farmers,"

Oakland Institute (2020). "World Bank Suspends Doing Business Report."

Okazaki, Yotaro. 2018. Doing Business and its Customs-related issues: A study on the Trading Across Borders Indicators. World Customs Organization. WCO Research Papers No.44.

Retrieved from: http://www.wcoomd.org/-/media/wco/public/global/pdf/topics/research/research-paper-series/44_doing_business_en.pdf?la=en Ortiz, Isabel and Leo Baunach (2020) "It is Time to End the controversial World Babk's Doing Busines Report," September 2, Inter Press Service http://www.ipsnews.net/2020/09/time-end-controversial-world-banks-business-report/

Oxfam (2020). Commitment to Reducing Inequality Index. http://www.inequalityindex.org/#/

Rogge, Nicky (2021) "Measuring and analyzing country change in establishing ease of doing business using a revised version of World Bank's ease of doing business index" *European Journal of Operational Research*, Vol. 290, Issue 1, April pp. 373-385, https://doi.org/10.1016/j.ejor.2020.07.065

Sandefur Justin and Divyanshi Wadhwa (2018) "A Change in World Bank Methodology (Not Reform) Explains India's Rise in Doing Business Rankings," February 5, Center for Global Development, https://www.cgdev.org/blog/change-world-bank-methodology-not-reform-explains-indias-rise-doing-business/

Sandler, R. (2020, December 18). World Bank Staff Manipulated Global Business Rankings-Boosting Saudi Arabia, China-Internal Audit Finds. Retrieved from https://www.forbes.com/sites/rachelsandler/2020/12/18/world-bank-staff-manipulated-global-business-rankings-boosting-saudi-arabia-china-internal-audit-finds/?sh=70bfb95026cc

Schaub, Klaus and Saadia Zahidi (2020) "The Global Competitiveness Report, Special Edition, 2020: How Countries ae Performing on the Road to Recovery" World Economic Forum

Venkatachalam. K.S. (2017) "The Ease of Doing Business in India," *The Diplomat*, November 9, https://thediplomat.com/2017/11/the-ease-of-doing-business-in-india/

Vasquez, Ian and Fred McMahon (2020) "The Human Freedom Index, 2020: A Global Measurement of Personal, Civil and Economic Freedom," https://www.cato.org/sites/cato.org/files/2021-01/human-freedom-index-2020%5B1%5D.pdf

World Bank (2019a) "Doing Business 2020; Comparing Business Regulation in 190 Economies," http://documents1.worldbank.org/curated/en/688761571934946384/pdf/Doing-Business-2020-Comparing-Business-Regulation-in-190-Economies.pdf

World Bank (2019b) "Canada; Doing Business 2020" https://www.doingbusiness.org/content/dam/doingBusiness/country/c/canada/CAN.pdf

World Bank. 2012. Doing Business 2012: Economy Profile: Canada. PDF. https://openknowledge.worldbank.org/bitstream/handle/10986/27206/652450Canada0D0Box0361574B00PUBLIC0.pdf?sequence=1&isAllowed=y

World Bank. 2013. Doing Business 2014: Understanding Regulations for Small and Medium-Size Enterprises. Washington, DC: World Bank Group. DOI: 10.1596/978-0-8213-9615-5. https://openknowledge.worldbank.org/bitstream/handle/10986/18561/827910Canada0CAN0Box0382097B00PUBLIC0.pdf?sequence=1&isAllowed=y

World Bank. 2019. Trading Across Borders Data. https://www.doingbusiness.org/en/data/exploretopics/trading-across-borders

World Bank. 2016. Doing Business 2016: Measuring Regulatory Quality and Efficiency. Washington, DC: World Bank Group. DOI: 10.1596/978-1-4648-0667-4 https://openknowledge.worldbank.org/bitstream/handle/10986/23073/Doing0business00efficiency000Canada.pdf?sequence=1&isAllowed=y

World Bank. 2019. Doing Business 2019: Training for Reform. Washington, DC: World Bank. https://openknowledge.worldbank.org/bitstream/handle/10986/25509/109795-WP-DB17-PUBLIC-Canada.pdf?sequence=1&isAllowed=y

World Bank. 2017. Doing Business 2017: Equal Opportunity for All. Washington, DC: World Bank. DOI: 10.1596/978-1-4648-0948-4. https://openknowledge.worldbank.org/bitstream/handle/10986/30692/WP-DB2019-PUBLIC-Canada.pdf?sequence=1&isAllowed=y

World Bank Group. 2016. Trading Across Borders Questionnaire. http://www.egypt.gov.eg/Services/DBusiness/Arabic/pillars/trading/trading-survey.pdf.

World Bank. 2020a. Historical Data. Excel. Retrieved from: https://www.doingbusiness.org/content/dam/doingBusiness/excel/db2020/Historical-data--COMPLETE-dataset-with-scores.xlsx

World Bank Group (2020b, December 8). Management Review of Data Irregularities in the Doing Business Reports from 2016 to 2020. Group Internal Audit Verification Report. http://documents1.worldbank.org/curated/en/569901608154479291/pdf/Manage

ment-Review-of-Data-Irregularities-in-the-Doing-Business-Reports-from-2016-to-2020-Verification-Report.pdf

World Bank Group (2020c, December 8) Data Integrity in the Production Process of the Doing Business Report. Group Internal Audit Assurance Review Report. http://documents1.worldbank.org/curated/en/134831608154762985/pdf/Data-Integrity-in-Production-Process-of-the-Doing-Business-Report-Assurance-Review.pdf

World Bank Group (2020d, December 16) Review of Data Irregularities in Doing Business. Management of the Development Economics Vice Presidency. http://pubdocs.worldbank.org/en/791761608145561083/DB-Data-Irregularities-Review-Dec2020.pdf

Zumbrun, Josh (2020, August 27) "World Bank Halts Report on National Competitiveness Rankings Amid Concerns of Data Manipulations," *Wall Street Journal*.

Appendix 1: Doing Business Index by Country and by Pillar in 2020

Economy	Global Rank	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
New Zealand	1	1	7	48	2	1	3	9	63	23	36
Singapore	2	4	5	19	21	37	3	7	47	1	27
Hong Kong SAR, China	3	5	1	3	51	37	7	2	29	31	45
Denmark	4	45	4	21	11	48	28	8	1	14	6
Korea, Rep.	5	33	12	2	40	67	25	21	36	2	11
United States	6	55	24	64	39	4	36	25	39	17	2
Georgia	7	2	21	42	5	15	7	14	45	12	64
United Kingdom	8	18	23	8	41	37	7	27	33	34	14
Norway	9	25	22	44	15	94	21	34	22	3	5
Sweden	10	39	31	10	9	80	28	31	18	39	17
Lithuania	11	34	10	15	4	48	37	18	19	7	89
Malaysia	12	126	2	4	33	37	2	80	49	35	40
Mauritius	13	20	8	28	23	67	18	5	72	20	28
Australia	14	7	11	62	42	4	57	28	106	6	20
Taiwan, China	15	21	6	9	20	104	21	39	61	11	23
United Arab Emirates	16	17	3	1	10	48	13	30	92	9	80
North Macedonia	17	78	15	68	48	25	12	37	32	47	30
Estonia	18	14	19	53	6	48	79	12	17	8	54
Latvia	19	26	56	61	25	15	45	16	28	15	55
Finland	20	31	42	24	34	80	61	10	37	45	1
Thailand	21	47	34	6	67	48	3	68	62	37	24
Germany	22	125	30	5	76	48	61	46	42	13	4
Canada	23	3	64	124	36	15	7	19	51	100	13
Ireland	24	23	36	47	60	48	13	4	52	91	19
Kazakhstan	25	22	37	67	24	25	7	64	105	4	42

Economy	Global Rank	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
Iceland	26	64	72	16	16	94	28	42	53	33	12
Austria	27	127	49	29	31	94	37	44	1	10	22
Russian Federation	28	40	26	7	12	25	72	58	99	21	57
Japan	29	106	18	14	43	94	57	51	57	50	3
Spain	30	97	79	55	59	80	28	35	1	26	18
China	31	27	33	12	28	80	28	105	56	5	51
France	32	37	52	17	99	104	45	61	1	16	26
Turkey	33	77	53	41	27	37	21	26	44	24	120
Azerbaijan	34	9	59	80	44	1	105	40	83	28	47
Israel	35	28	35	83	75	48	18	13	67	85	29
Switzerland	36	81	71	13	18	67	105	20	26	57	49
Slovenia	37	41	119	23	54	119	18	45	1	112	8
Rwanda	38	35	81	59	3	4	114	38	88	32	62
Portugal	39	63	60	52	35	119	61	43	1	38	15
Poland	40	128	39	60	92	37	51	77	1	55	25
Czech Republic	41	134	157	11	32	48	61	53	1	103	16
Netherlands	42	24	88	58	30	119	79	22	1	78	7
Bahrain	43	67	17	72	17	94	51	1	77	59	60
Serbia	44	73	9	94	58	67	37	85	23	65	41
Slovak Republic	45	118	146	54	8	48	88	55	1	46	46
Belgium	46	48	45	108	139	67	45	63	1	56	9
Armenia	47	10	62	30	13	48	120	52	43	30	95
Moldova	48	13	156	84	22	48	45	33	38	62	67
Belarus	49	30	48	20	14	104	79	99	24	40	74
Montenegro	50	101	40	134	83	15	61	75	41	44	43

Economy	Global Rank	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
Croatia	51	114	150	37	38	104	37	49	1	27	63
Hungary	52	87	108	125	29	37	97	56	1	25	66
Morocco	53	43	16	34	81	119	37	24	58	60	73
Cyprus	54	50	125	75	71	80	21	29	50	142	31
Romania	55	91	147	157	46	25	61	32	1	19	56
Kenya	56	129	105	70	134	4	1	94	117	89	50
Kosovo	57	12	160	90	37	15	128	48	31	53	48
Italy	58	98	97	38	26	119	51	128	1	122	21
Chile	59	57	41	39	63	94	51	86	73	54	53
Mexico	60	107	93	106	105	11	61	120	69	43	33
Bulgaria	61	113	43	151	66	67	25	97	21	42	61
Saudi Arabia	62	38	28	18	19	80	3	57	86	51	168
India	63	136	27	22	154	25	13	115	68	163	52
Ukraine	64	61	20	128	61	37	45	65	74	63	146
Puerto Rico	65	59	143	92	161	4	88	163	70	70	10
Brunei Darussalam	66	16	54	31	144	1	128	90	149	66	59
Colombia	67	95	89	82	62	11	13	148	133	177	32
Oman	68	32	47	35	52	144	88	11	64	69	97
Uzbekistan	69	8	132	36	72	67	37	69	152	22	100
Vietnam	70	115	25	27	64	25	97	109	104	68	122
Jamaica	71	6	70	120	85	15	61	124	136	119	34
Luxembourg	72	76	14	45	93	176	97	23	1	18	93
Indonesia	73	140	110	33	106	48	37	81	116	139	38
Costa Rica	74	144	78	25	49	15	110	66	80	111	137
Jordan	75	120	138	69	78	4	105	62	75	110	112

Economy	Global Rank	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
Peru	76	133	65	88	55	37	45	121	102	83	90
Qatar	77	108	13	49	1	119	157	3	101	115	123
Tunisia	78	19	32	63	94	104	61	108	90	88	69
Greece	79	11	86	40	156	119	37	72	34	146	72
Kyrgyz Republic	80	42	90	143	7	15	128	117	89	134	78
Mongolia	81	100	29	152	50	25	25	71	143	75	150
Albania	82	53	166	107	98	48	111	123	25	120	39
Kuwait	83	82	68	66	45	119	51	6	162	74	115
South Africa	84	139	98	114	108	80	13	54	145	102	68
Zambia	85	117	67	129	149	4	72	17	155	130	79
Panama	86	51	100	51	87	25	88	176	59	141	113
Botswana	87	159	44	139	82	80	72	59	55	137	84
Malta	88	86	57	73	152	144	51	78	48	41	121
Bhutan	89	103	91	78	53	94	111	15	30	29	168
Bosnia and Herzegovina	90	184	173	74	96	67	88	141	27	93	37
El Salvador	91	148	168	87	79	25	140	70	46	126	92
San Marino	92	92	92	26	102	152	162	47	20	81	106
St. Lucia	93	69	38	56	107	165	79	84	93	79	131
Nepal	94	135	107	135	97	37	79	175	60	151	87
Philippines	95	171	85	32	120	132	72	95	113	152	65
Guatemala	96	99	118	46	89	15	153	104	82	176	157
Togo	97	15	127	99	56	48	120	174	131	140	88
Samoa	98	46	94	71	68	119	128	82	154	86	140
Sri Lanka	99	85	66	89	138	132	28	142	96	164	94
Seychelles	100	147	106	104	65	144	143	36	98	128	75

Economy	Global Rank	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
Uruguay	101	66	151	65	119	80	153	103	150	104	70
Fiji	102	163	102	97	57	165	97	101	79	101	98
Tonga	103	62	69	95	166	48	153	102	97	98	138
Namibia	104	165	84	76	173	80	88	88	138	64	127
Trinidad and Tobago	105	79	126	43	158	67	57	160	134	174	83
Tajikistan	106	36	137	163	77	11	128	139	141	76	153
Vanuatu	107	137	163	101	84	37	147	67	148	138	101
Pakistan	108	72	112	123	151	119	28	161	111	156	58
Malawi	109	153	128	171	90	11	79	135	127	149	134
Côte d'Ivoire	110	29	152	141	112	48	120	114	163	94	85
Dominica	111	71	83	57	179	152	79	83	91	95	136
Djibouti	112	123	87	121	117	132	103	133	147	144	44
Antigua and Barbuda	113	130	117	50	124	165	79	145	112	36	132
Egypt, Arab Rep.	114	90	74	77	130	67	57	156	171	166	104
Dominican Republic	115	112	80	116	74	119	143	150	66	133	124
Uganda	116	169	113	168	135	80	88	92	121	77	99
West Bank and Gaza	117	173	148	86	91	25	114	112	54	123	168
Ghana	118	116	104	79	111	80	72	152	158	117	161
Bahamas, The	119	94	77	81	181	152	88	50	161	82	71
Papua New Guinea	120	142	122	118	127	48	72	118	125	173	144
Eswatini	121	155	96	132	104	94	162	73	35	172	117
Lesotho	122	84	165	158	114	94	147	110	40	99	126
Senegal	123	60	131	119	116	67	114	166	142	132	96
Brazil	124	138	170	98	133	104	61	184	108	58	77
Paraguay	125	160	75	109	80	132	143	126	128	72	105

Economy	Global Rank	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
Argentina	126	141	155	111	123	104	61	170	119	97	111
Iran, Islamic Rep.	127	178	73	113	70	104	128	144	123	90	133
Barbados	128	102	153	117	118	152	136	96	132	170	35
Ecuador	129	177	114	100	73	119	114	147	103	96	160
St. Vincent and the Grenadines	130	93	51	105	168	165	79	100	81	61	168
Nigeria	131	105	55	169	183	15	28	159	179	73	148
Niger	132	56	180	159	115	48	120	169	126	114	114
Honduras	133	170	158	138	101	25	120	167	130	154	143
Guyana	134	111	167	170	128	94	88	122	151	92	163
Belize	135	166	123	91	137	173	157	60	114	135	91
Solomon Islands	136	110	172	112	155	104	136	41	160	157	145
Cabo Verde	137	121	50	154	69	144	170	87	109	52	168
Mozambique	138	176	61	103	136	165	147	127	94	168	86
St. Kitts and Nevis	139	109	58	110	185	165	103	125	71	49	168
Zimbabwe	140	167	140	167	109	67	97	146	159	169	142
Tanzania	141	162	149	85	146	67	105	165	182	71	116
Nicaragua	142	145	176	115	160	104	170	162	84	87	107
Lebanon	143	151	164	127	110	132	114	116	153	131	151
Cambodia	144	187	178	146	129	25	128	138	118	182	82
Palau	145	132	129	153	47	104	188	113	139	125	166
Grenada	146	89	130	93	147	152	105	143	137	80	168
Maldives	147	74	63	149	176	144	147	119	157	124	141
Mali	148	124	133	161	140	152	120	173	95	159	102
Benin	149	65	82	178	126	152	120	171	110	162	108
Bolivia	150	175	139	96	148	144	136	186	100	109	103

Economy	Global Rank	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
Burkina Faso	151	88	95	183	141	152	120	154	122	165	109
Mauritania	152	49	109	166	103	132	147	177	144	48	168
Marshall Islands	153	83	76	140	187	104	179	79	76	106	167
Lao PDR	154	181	99	144	88	80	179	157	78	161	168
Gambia, The	155	119	145	165	143	152	170	172	115	129	128
Guinea	156	122	116	150	122	152	162	183	167	118	118
Algeria	157	152	121	102	165	181	179	158	172	113	81
Micronesia, Fed. Sts.	158	174	136	122	187	104	185	111	65	184	125
Ethiopia	159	168	142	137	142	176	189	132	156	67	149
Comoros	160	158	101	136	113	132	162	168	120	179	168
Madagascar	161	80	182	186	164	132	140	134	140	136	135
Suriname	162	182	115	145	157	181	157	107	87	188	139
Sierra Leone	163	58	181	181	169	165	128	93	165	108	162
Kiribati	164	149	169	172	150	173	136	98	135	121	168
Myanmar	165	70	46	148	125	181	176	129	168	187	164
Burundi	166	44	161	184	100	176	143	140	169	158	147
Cameroon	167	104	154	133	175	80	157	181	186	167	129
Bangladesh	168	131	135	176	184	119	72	151	176	189	154
Gabon	169	96	141	164	171	132	170	182	170	180	130
São Tomé and Príncipe	170	150	111	130	172	165	179	137	124	185	168
Sudan	171	157	124	162	95	176	153	164	185	148	152
Iraq	172	154	103	131	121	186	111	131	181	147	168
Afghanistan	173	52	183	173	186	104	140	178	177	181	76
Guinea-Bissau	174	161	177	182	132	152	114	155	146	171	168
Liberia	175	75	185	175	180	104	176	76	184	175	110

Economy	Global Rank	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
Syrian Arab Republic	176	143	186	160	162	176	97	91	178	160	158
Angola	177	146	120	156	167	185	147	106	174	186	168
Equatorial Guinea	178	183	162	155	163	132	162	179	175	105	168
Haiti	179	189	179	147	182	144	183	149	85	127	168
Congo, Rep.	180	179	134	179	174	132	162	185	183	155	119
Timor-Leste	181	68	159	126	187	173	157	136	107	190	168
Chad	182	186	174	180	131	152	170	188	173	153	155
Congo, Dem. Rep.	183	54	144	177	159	152	176	180	187	178	168
Central African Republic	184	180	184	185	170	144	162	187	164	183	155
South Sudan	185	172	171	187	177	181	185	74	180	84	168
Libya	186	164	186	142	187	186	183	130	129	145	168
Yemen, Rep.	187	156	186	187	86	186	162	89	188	143	159
Venezuela, RB	188	190	175	174	145	132	170	189	188	150	165
Eritrea	189	185	186	187	178	186	185	153	188	107	168
Somalia	190	188	186	187	153	186	190	190	166	116	168
Guinea-Bissau	174	161	177	182	132	152	114	155	146	171	168
Liberia	175	75	185	175	180	104	176	76	184	175	110

Nota bene: The rankings may be misleading because they are ordinal measures and so it is not possible to ascertain the magnitude of the underlying difference across rank values. For example, a country that is ranked 100th in a pillar might not have a significant difference in the underlying data versus a country that is ranked 1st if, say, there are 99 countries with a score of 100 on the pillar and the 100th country has a score of 99. In this case the first 99 countries with a score of 100 are all ranked number 1, while the 100th country with a score just marginally below the pack is ranked 100th.

Appendix 2: List of Index Indicators in 2020 Index

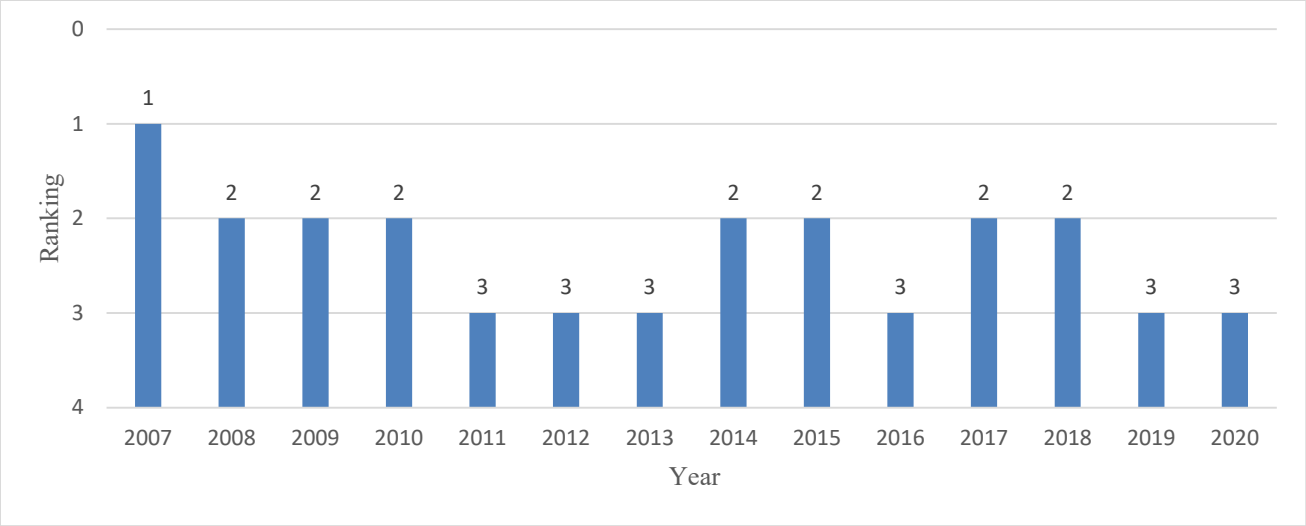
Starting a business	Procedures - (#) Time - (days) Cost - (% of income/ capita) minimum capital required (% of income/capita)
Dealing with construction permits	Procedures (#) Time (days) Cost- (% of warehouse value) *Building quality control index- (0-15)
Getting electricity	Procedures (#) Time (days) Cost- (% of income/ capita) *Reliability of supply & transparency of tariff index (0-8)
Registering property	Procedures (#) Time (days) Cost- (% of property value) *Quality of the land administration index (0-30)
Getting credit	*Strength of legal rights index- (0-12) *Depth of credit info index (0-8) Public Registry coverage (% of Adults) Credit Bureau Coverage (% of adults) Private Bureau Coverage (% of adults)
Protecting minority investors	*Extent of disclosure index (0-10) *Extent of director liability index (0-10) *Ease of shareholder lawsuits index (0-10) *Extent of share-holder rights index (0-6) *Extent of ownership & control index (0-7) *Extent of corporate transparency index (0-7)
Paying taxes	Payments (#/yr) Time (hrs/yr) Total tax & contribution rate (% of profit) *Post filing index (0-100)
Trading across borders	Time to export: Border compliance (hrs) Cost to export: Border compliance ($) Time to export: Documentary compliance (hrs) Cost to export: Documentary compliance ($) Time to import: Border compliance (hrs) Cost to import: Border compliance ($) Time to import: Documentary compliance (hrs) Cost to import: Documentary compliance ($)
Enforcing contracts	Time (days) Cost (% of claim value) *Quality of judicial processes index (0-18)
Resolving insolvency	Time in Years Cost (% of estate) Recovery rate (cents/$) *Strength of insolvency framework index (0-16) Outcome (0 as piecemeal sale and 1 as going concern)

* Denotes composite indicators (comprised of underlying components)

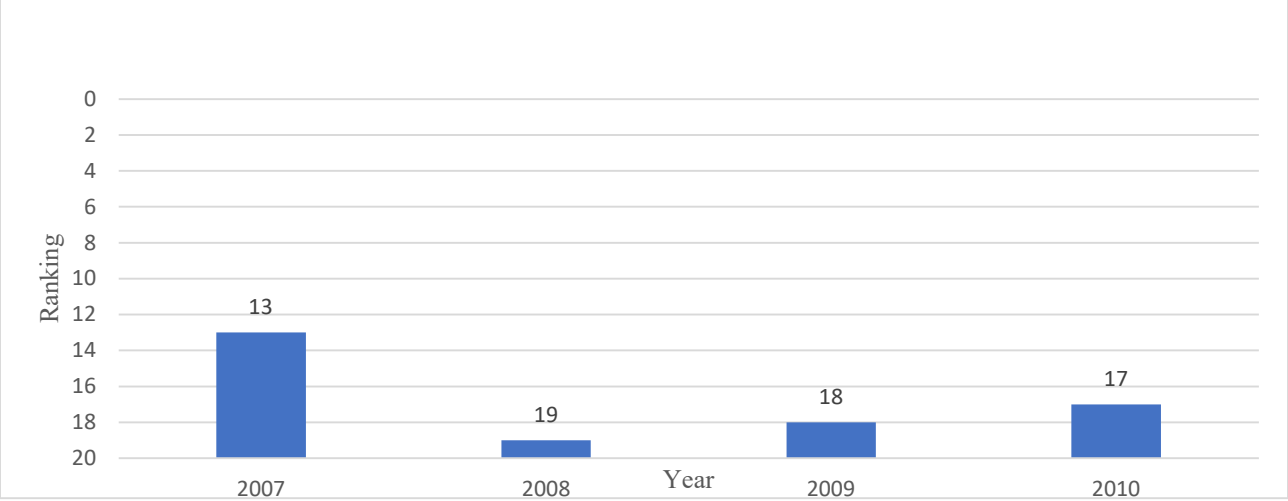
Nota bene: The procedures, time and cost indicators in the Starting a Business pillar are recorded for both females and males (i.e., it assumes that the business is either owned by a group of female or male partners). Taken separately they are 6 indicators. However, sometimes people refer to the female and male values collectively, in which case they are 3 indicators. Thus, in some instances one may see either 3 or 7 indicators listed in this pillar, and thus either 41 or 44 indicators for the Index

Appendix 3: Ranking of Six Pillars of the Doing Business Index 2007-2020

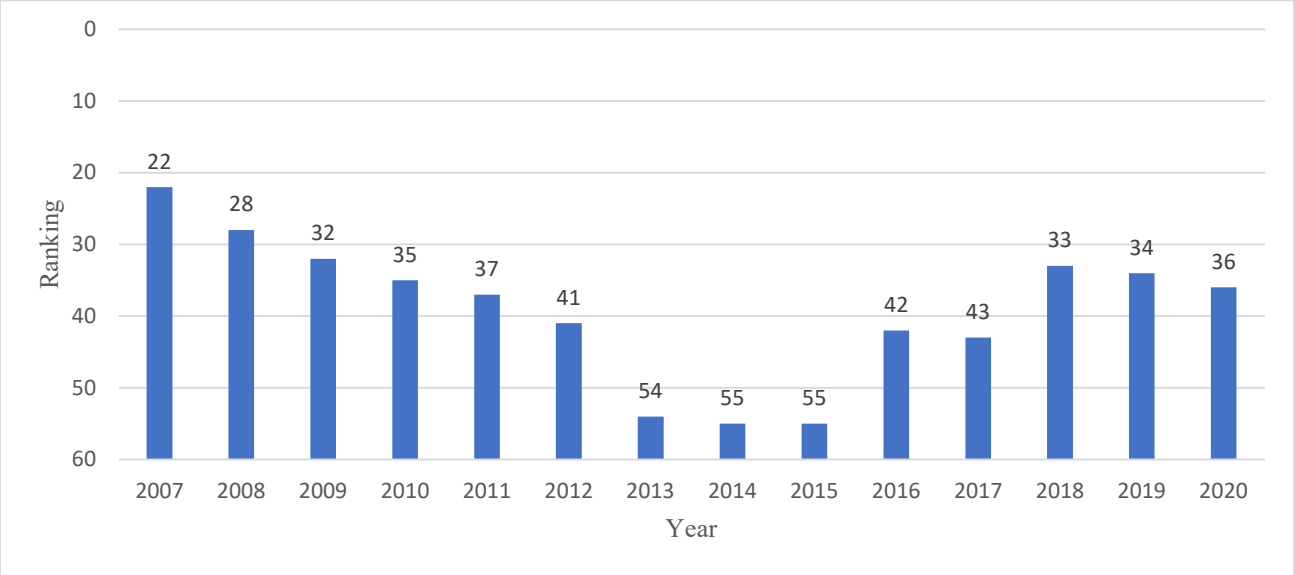
Panel A: Starting a Business



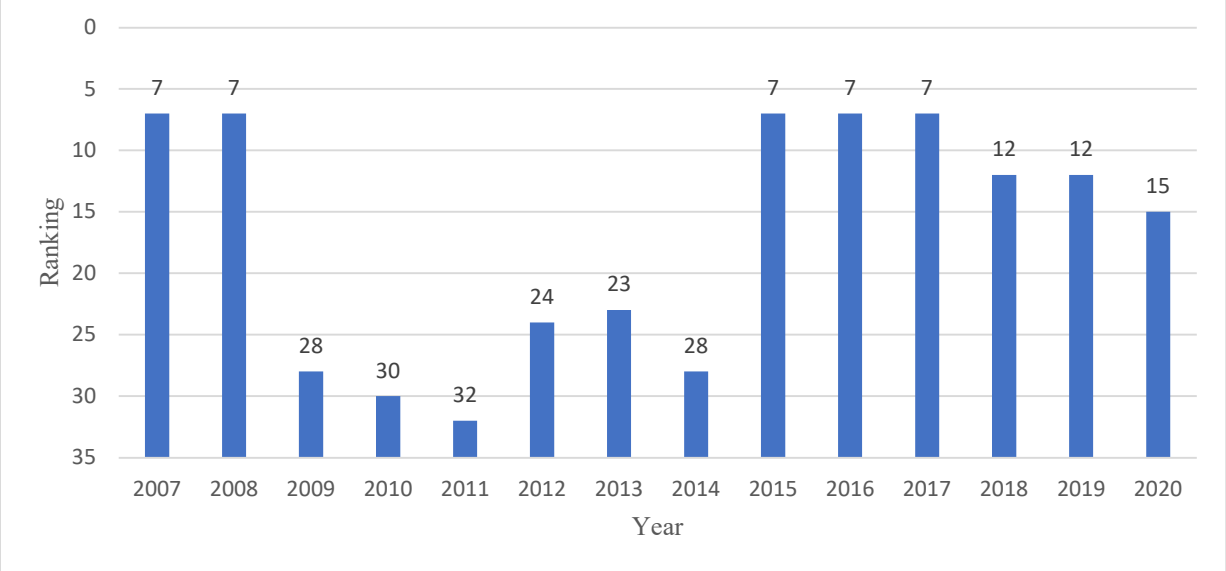
Panel B: Employing Workers (until 2010)



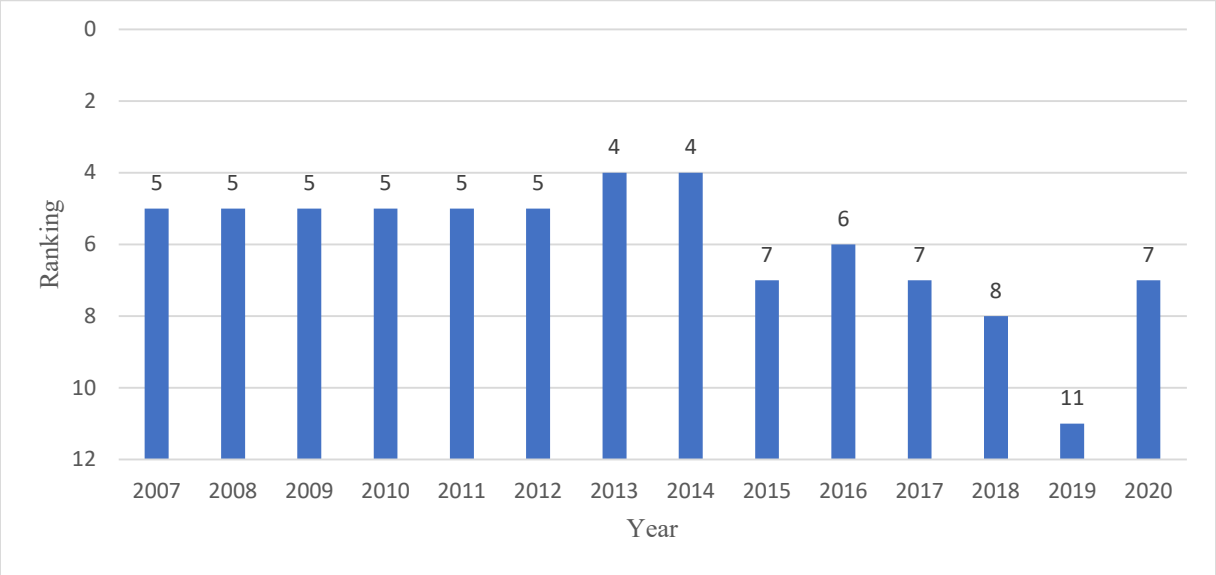
Panel C: Registering Property



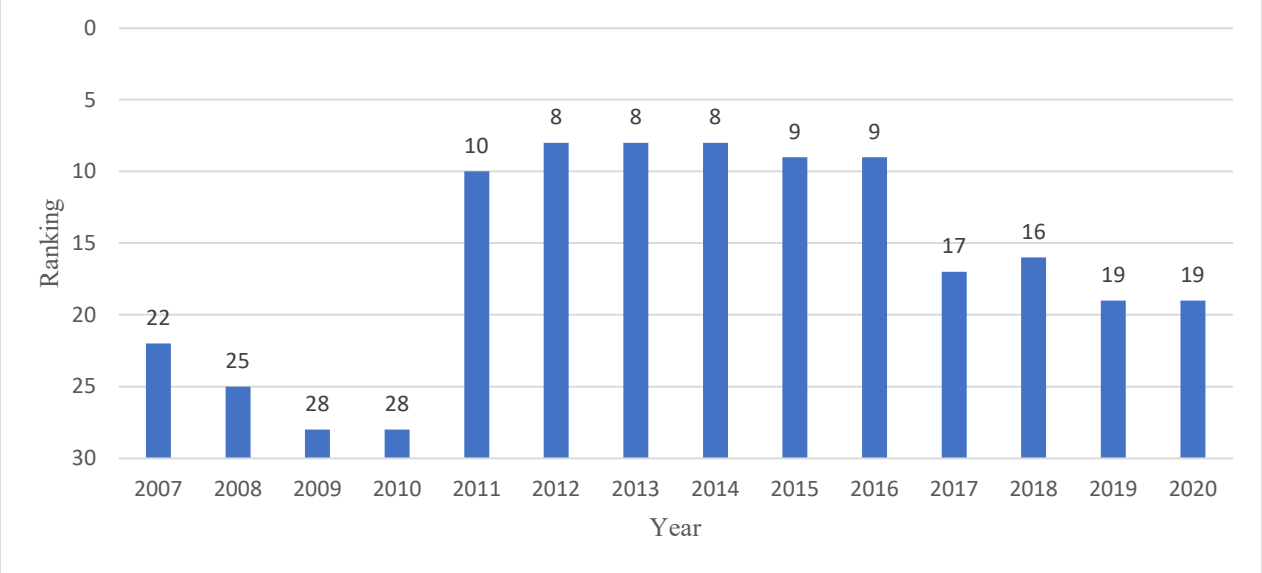
Panel D: Getting Credit



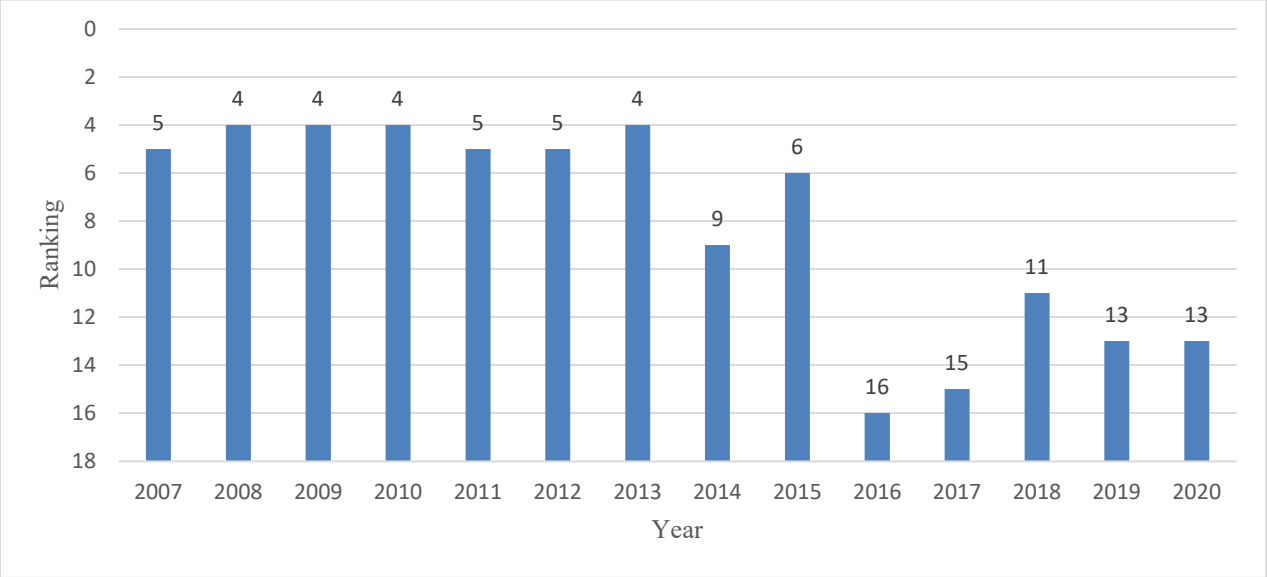
Panel E: Protecting Investors (until 2014), Protecting Minority Investors (since 2015)



Panel F: Paying Taxes



Panel G: Resolving Insolvency (closing a business until 2010)



Appendix 4: Canada's Ranking on Six Pillars of the Doing Business Index and the Absolute Value and Ranking of Pillar Indicators 2007-2020

Panel A: Starting a Business

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Rank	1	2	2	2	3	3	3	2	2	3	2	2	3	3
Procedures (number)	2	2	1	1	1	1	1	1	1	2	2	2	2	2
Procedures ranking	1													2
Time (days)	3	3	5	5	5	5	5	5	5	1.5	1.5	1.5	1.5	1.5
Time ranking	2													3
Cost (% of income per capita)	0.9	0.9	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3
Cost Ranking	9													9
Minimum capital (% of income per capita)	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0
Minimum Ranking	1													1

Source: The World Bank Reports, CSLS calculations

Panel B: Registering Property

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Rank	22	28	32	35	37	41	54	55	55	42	43	33	34	36
Procedures (number)	6	6	6	6	6	6	6	6	6	6	6	5	5	5
Procedures Ranking	70									84				51
Time (days)	10	17	17	17	17	17	17	16.5	16.5	16.5	16.5	4	4	4
Time Ranking	20									46				12
Cost (% of property value)	1.7	1.8	1.8	1.8	1.8	1.8	3.4	3.4	3.3	3.3	3.1	2.9	2.9	3.8
Cost ranking	24									61				70
Quality of land administration index (0-30)	N/A									21.5	21.5	21.5	21.5	21.5
Quality of land administration index Ranking										38				49

Source: The World Bank Reports and CSLS calculations.

Panel C: Protecting Investors

	Protecting Investors								Protecting Minority Investors					
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Rank	5	5	5	5	5	5	4	4	7	6	7	8	11	7
Extent of disclosure Index (0-10)	8	8	8	8	8	8	8	8	Note: 2015-2016 Methodology is not comparable		8	8	8	8
Extent of disclosure Index Ranking	5										7			7
Extent of director liability Index (0-10)	9	9	9	9	9	9	9	9			9	9	9	9
Extent of director liability Index Ranking	13										23			31
Ease of Shareholder suits Index (0-10)	8	8	8	8	8	8	9	9			9	9	9	9
Ease of Shareholder suits Index Ranking	14										1			2
Strength of Investor protection Index (0-10)	8.3	8.3	8.3	8.3	8.3	8.3	8.7	8.7			N/A			
Strength of Investor protection Index Ranking	5										N/A			
Extent of shareholder rights index: (0-10) in and before 2019 and (0-6) in 2020	N/A										6	6	6	4
Extent of shareholder rights index: Ranking	N/A										71			65
Extent of ownership and control index (0-10) up to 2019 and (0-7) in 2020	N/A										8	7	7	6
Extent of ownership and control index Ranking	N/A										5			10
Extent of corporate transparency index (0-10) in and before 2019 and (0-7) in 2020	N/A										6	8	8	6
Extent of corporate transparency index - Ranking	N/A										55			14

Source: The World Bank Reports and CSLS calculations.

Protecting Minority Investors 2015-2017

	2015	2016
Rank	7	6
Extent of conflict-of-interest regulation index (0-10)	8.7	8.7
Extent of conflict-of-interest regulation index - Ranking	4	4
Extent of shareholder governance index (0-10)	5.8	6.7
Extent of shareholder governance index - Ranking	50	29
Strength of minority investor protection index (0-10)	7.3	7.7
Strength of minority investor protection index - Ranking	6	6

Source: The World Bank Reports, CSLS calculations.

Note: 2015-2016 methodology is not comparable to other years

Panel E: Getting Credit

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Rank	7	7	28	30	32	24	23	28	7	7	7	12	12	15
Strength of legal rights Index (0-10)	7	7	6	6	6	7	7	7	N/A					
Strength of legal rights Index ranking	18							51	N/A					
Strength of legal rights Index (0-12)	N/A								9	9	9	9	9	9
Strength of legal rights Index ranking	N/A								18					28
Depth of credit information Index (0-6)	6	6	6	6	6	6	6	6	N/A					
Depth of credit information Index ranking	1							1	N/A					
Depth of credit information Index (0-8)	N/A								8	8	8	8	8	8
Depth of credit information Index ranking	N/A								1					1
Public registry coverage (% of adults)	0	0	0	0	0	0	0	0	N/A					
Public registry coverage ranking	78							90	N/A					
Credit bureau coverage (%of adults)	N/A								100	100	100	100	100	100
Credit bureau coverage ranking	N/A								1					1
Private bureau coverage (% of adults)	100	100	100	100	100	0	100	100	N/A					
Private bureau coverage ranking	1							1	N/A					
Credit registry coverage (% of adults)	N/A								0	0	0	0	0	0
Credit registry coverage ranking	N/A								90					93

Source: The World Bank Reports and CSLS calculations.

Panel F: Paying taxes

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Rank	22	25	28	28	10	8	8	8	9	9	17	16	19	19
Payments (number per year)	10	9	9	9	8	8	8	8	8	8	8	8	8	8
Payments ranking	15										23			27
Time (hours per year)	119	119	119	119	131	131	131	131	131	131	131	131	131	131
Time ranking	31										37			42
Total tax rate (% of profit)	43	45.9	45.4	43.6	29.2	28.8	26.9	24.3	21	21.1	21.0	20.9	20.5	24.5
Total tax rate ranking	77										21			30
Post filing Index (0-100)	N/A										76.4	73.2	73.2	73.2
Post filing Index ranking	N/A										76			74

Source: The World Bank Reports and CSLS calculations.

Panel G: Closing a Business (Called Resolving Insolvency starting with 2012)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Rank	5	4	4	4	3	3	3	9	6	16	15	11	13	13
Time (years)	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Time ranking	3													3
Cost (% of estate)	4	4	4	4	4	4	4	7	7	7	7	7	7	7
Cost ranking	7													20
Recovery rate (cents on the dollar)	89.3	88.8	88.7	88.7	91.2	90.7	90.7	87.3	87.3	87.3	87.4	87.5	87.5	86.7
Recovery rate ranking	7													20
Strength of insolvency framework index (0-16)	N/A								13.5	11	11	11	11	11
Strength of insolvency framework index rankings	N/A								13					55
Outcome (0 as piecemeal sale and 1 as going concern)	N/A													1
Outcome rankings	N/A													1

Source: The World Bank Reports and CSLS calculations.

Appendix 5: Scores for the Doing Business Index and its Pillars in Canada, 2015-2020

	2015	2016	2017	2018	2019	2020
	Scores					
Overall	79.09	80.07	78.57	79.29	79.26	79.60
Starting a Business	98.82	98.23	98.23	98.23	98.23	98.20
Dealing with Construction Permits	67.12	73.70	73.66	72.87	72.98	73.00
Getting electricity	59.27	63.76	63.76	66.89	63.78	63.80
Registering Property	76.2	75.09	75.40	79.31	79.31	77.80
Getting Credit	85.00	85.00	85.00	85.00	85.00	85.00
Protecting Minority Investors	72.5	76.67	76.67	78.33	78.33	84.00
Paying Taxes	93.00	93.00	88.86	88.05	88.05	88.10
Trading across Borders	86.07	88.36	88.36	88.36	88.36	88.40
Enforcing Contracts	63.76	65.49	54.35	54.35	57.13	57.10
Resolving Insolvency	89.17	81.36	81.43	81.46	81.46	81.00

Source: https://www.doingbusiness.org/en/reports/global-reports/doing-business-2020

Appendix 6: Ranking and Scores of Select Indicators, by pillar

Table 1: Trading Across Borders

Panel A: Cost to Export: Border Compliance (USD), 2020

Country	Cost	Ranking	Country	Cost	Ranking	Country	Cost	Ranking	Country	Cost	Ranking	Country	Cost	Ranking
Austria	0	1	Burundi	109	39	Uzbekistan	278	77	Qatar	382	115	Colombia	630	153
Belgium	0	1	Georgia	112	40	Oman	279	78	Puerto Rico	386	116	Peru	630	153
Croatia	0	1	Switzerland	115	41	Central African Republic	280	79	Niger	391	117	Solomon Islands	630	153
Czech Republic	0	1	Norway	125	42	United Kingdom	280	79	Mexico	400	118	Cabo Verde	641	156
Denmark	0	1	El Salvador	128	43	Zimbabwe	285	81	Bangladesh	408	119	Comoros	651	157
Estonia	0	1	Jordan	131	44	Pakistan	288	82	Iran, Islamic Rep.	415	120	Kuwait	665	158
France	0	1	Eswatini	134	45	Chile	290	83	Kiribati	420	121	Papua New Guinea	700	159
Hong Kong SAR, China	0	1	Lao PDR	140	46	Vietnam	290	83	Côte d'Ivoire	423	122	Vanuatu	709	160
Hungary	0	1	Kenya	143	47	Marshall Islands	298	85	São Tomé and Príncipe	426	123	Belize	710	161
Italy	0	1	Argentina	150	48	Cyprus	300	86	Myanmar	432	124	St. Lucia	718	162
Luxembourg	0	1	Israel	150	48	Greece	300	86	Costa Rica	450	125	Namibia	745	163
Netherlands	0	1	Latvia	150	48	Mauritius	303	88	Afghanistan	453	126	Mauritania	749	164
Poland	0	1	Lesotho	150	48	Ireland	305	89	Philippines	456	127	Equatorial Guinea	760	165
Portugal	0	1	Morocco	156	52	Guatemala	310	90	United Arab Emirates	462	128	South Sudan	763	166
Romania	0	1	Togo	163	53	Tajikistan	313	91	Guyana	468	129	**Australia**	**766**	**167**
San Marino	0	1	**Canada**	**167**	**54**	Botswana	317	92	Suriname	468	129	Guinea	778	168
Slovak Republic	0	1	Micronesia, Fed. Sts.	168	55	Fiji	317	92	Kazakhstan	470	131	Nigeria	786	169
Slovenia	0	1	Ethiopia	172	56	Chad	319	94	Lebanon	480	132	Paraguay	815	170
Spain	0	1	United States	175	57	Saudi Arabia	319	94	Barbados	486	133	Angola	825	171
Kyrgyz Republic	10	20	Rwanda	183	58	Seychelles	332	96	Dominican Republic	488	134	Brazil	862	172
Bahrain	47	21	Korea, Rep.	185	59	Singapore	335	97	Ghana	490	135	Madagascar	868	173
Serbia	47	21	Tonga	201	60	St. Kitts and Nevis	335	97	Somalia	495	136	Jamaica	876	174
West Bank and Gaza	51	23	Uganda	209	61	Taiwan, China	335	97	Trinidad and Tobago	499	137	Sudan	967	175
Albania	55	24	Indonesia	211	62	New Zealand	337	100	Palau	505	138	Cameroon	983	176
Bulgaria	55	24	India	212	63	Turkey	338	101	Bahamas, The	512	139	Grenada	1034	177
Sweden	55	24	Finland	213	64	Brunei Darussalam	340	102	Antigua and Barbuda	546	140	Uruguay	1038	178
Lithuania	58	27	Malaysia	213	64	St. Vincent and the Grenadines	340	102	Senegal	547	141	Liberia	1113	179
Bhutan	59	28	Azerbaijan	214	66	Germany	345	104	Sierra Leone	552	142	Syrian Arab Republic	1113	179
Belarus	65	29	Thailand	223	67	Timor-Leste	350	105	Ecuador	560	143	Iraq	1118	181
Bolivia	65	29	Mongolia	225	68	Benin	354	106	Libya	575	144	Tanzania	1175	182
Bosnia and Herzegovina	70	31	Nicaragua	240	69	Iceland	365	107	Russian Federation	580	145	South Africa	1257	183
Ukraine	75	32	Mali	242	70	Sri Lanka	366	108	Guinea-Bissau	585	146	Samoa	1400	184
Moldova	76	33	Malawi	243	71	Haiti	368	109	Algeria	593	147	Gabon	1633	185
Montenegro	85	34	China	256	72	Malta	370	110	Maldives	596	148	Congo, Rep.	1975	186
Armenia	100	35	Egypt, Arab Rep.	258	73	Zambia	370	110	Honduras	601	149	Congo, Dem. Rep.	2223	187
Nepal	103	36	Burkina Faso	261	74	Cambodia	375	112	Mozambique	602	150	Eritrea	-9999	N/A
North Macedonia	103	36	Panama	270	75	Tunisia	375	112	Djibouti	605	151	Venezuela, RB	-9999	N/A
Kosovo	105	38	Japan	272	76	Gambia, The	381	114	Dominica	625	152	Yemen, Rep.	-9999	N/A

Source: CSLS Calculations, based on the World Bank Report.

Panel B: Cost to import: Border Compliance (USD), 2020

Country	Cost	Ranking	Country	Cost	Ranking	Country	Cost	Ranking	Country	Cost	Ranking	Country	Cost	Ranking
Armenia	0	1	Switzerland	115	39	Sri Lanka	300	76	Panama	490	115	Senegal	702	153
Austria	0	1	Ethiopia	120	40	Montenegro	306	78	Kyrgyz Republic	499	116	Central African Republic	709	154
Belarus	0	1	Norway	125	41	Israel	307	79	Costa Rica	500	117	Solomon Islands	740	155
Belgium	0	1	El Salvador	128	42	St. Kitts and Nevis	311	80	Paraguay	500	117	Afghanistan	750	156
Bulgaria	0	1	Kosovo	128	42	Bolivia	315	81	Uruguay	500	117	Comoros	765	157
Croatia	0	1	Eswatini	134	44	Japan	315	81	Russian Federation	520	120	South Sudan	781	158
Czech Republic	0	1	Malawi	143	45	Korea, Rep.	315	81	**Australia**	**539**	**121**	Lebanon	790	159
Denmark	0	1	Namibia	145	46	Fiji	320	84	St. Vincent and the Grenadines	540	122	Guinea	809	160
Estonia	0	1	Lesotho	150	47	Gambia, The	326	85	Colombia	545	123	Sierra Leone	821	161
Finland	0	1	North Macedonia	150	47	Tonga	330	86	Mali	545	123	Syrian Arab Republic	828	162
France	0	1	**Canada**	**172**	**49**	Cyprus	335	87	Antigua and Barbuda	546	125	Kenya	833	163
Germany	0	1	United States	175	50	Taiwan, China	340	88	Guinea-Bissau	550	126	St. Lucia	842	164
Greece	0	1	Micronesia, Fed. Sts.	180	51	Seychelles	341	89	Ghana	553	127	Bangladesh	900	165
Hungary	0	1	Nepal	190	52	Iceland	365	90	United Arab Emirates	553	127	Samoa	900	165
Italy	0	1	Jordan	206	53	New Zealand	367	91	Egypt, Arab Rep.	554	129	Dominica	906	167
Kazakhstan	0	1	Mongolia	210	54	Mauritius	372	92	Qatar	558	130	Jamaica	906	167
Latvia	0	1	Malaysia	213	55	Vietnam	373	93	Zimbabwe	562	131	Papua New Guinea	940	169
Lithuania	0	1	Singapore	220	56	Brazil	375	94	Haiti	563	132	Somalia	952	170
Luxembourg	0	1	Tajikistan	223	57	Zambia	380	95	Dominican Republic	579	133	Chad	965	171
Netherlands	0	1	Lao PDR	224	58	Indonesia	383	96	Mauritania	580	134	Maldives	981	172
Poland	0	1	Morocco	228	59	Puerto Rico	386	97	Cabo Verde	588	135	Equatorial Guinea	985	173
Portugal	0	1	Malta	230	60	Brunei Darussalam	395	98	Madagascar	595	136	Liberia	1013	174
Romania	0	1	Thailand	233	61	Georgia	396	99	Tunisia	596	137	Angola	1030	175
Slovak Republic	0	1	Cambodia	240	62	Bahrain	397	100	Benin	599	138	Djibouti	1055	176
Slovenia	0	1	China	241	63	Mozambique	399	101	Palau	605	139	Nigeria	1077	177
Spain	0	1	Oman	244	64	Nicaragua	400	102	Togo	612	140	Sudan	1093	178
Sweden	0	1	Ecuador	250	65	Guatemala	405	103	Kuwait	634	141	Argentina	1200	179
United Kingdom	0	1	Ireland	253	66	São Tomé and Príncipe	406	104	Trinidad and Tobago	635	142	Grenada	1256	180
Turkey	46	29	Burkina Faso	265	67	Algeria	409	105	Libya	637	143	Gabon	1320	181
San Marino	50	30	Guyana	265	67	Timor-Leste	410	106	Iraq	644	144	Tanzania	1350	182
West Bank and Gaza	50	30	Hong Kong SAR, China	266	69	Burundi	444	107	Suriname	658	145	Bahamas, The	1385	183
Serbia	52	32	India	266	69	Uganda	447	108	Iran, Islamic Rep.	660	146	Cameroon	1407	184
Albania	77	33	Uzbekistan	278	71	Mexico	450	109	South Africa	676	147	Congo, Rep.	1581	185
Moldova	83	34	Rwanda	282	72	Côte d'Ivoire	456	110	Vanuatu	681	148	Barbados	1776	186
Botswana	98	35	Pakistan	287	73	Myanmar	457	111	Kiribati	685	149	Congo, Dem. Rep.	3039	187
Ukraine	100	36	Chile	290	74	Niger	462	112	Belize	688	150	Eritrea	-9999	N/A
Bosnia and Herzegovina	109	37	Marshall Islands	298	75	Saudi Arabia	464	113	Philippines	690	151	Venezuela	-9999	N/A
Bhutan	110	38	Azerbaijan	300	76	Honduras	483	114	Peru	700	152	Yemen, Rep.	-9999	N/A

Source: CSLS Calculations, based on the World Bank Report.

Panel C: Cost to export: Documentary compliance (USD), 2020

Country	Cost	Ranking	Country	Cost	Ranking	Country	Cost	Ranking	Country	Cost	Ranking	Country	Cost	Ranking
Austria	0	1	Singapore	37	39	Mongolia	64	77	Timor-Leste	100	107	São Tomé and Príncipe	194	153
Belgium	0	1	Niger	39	40	Morocco	67	78	Uganda	102	116	South Sudan	194	153
Croatia	0	1	Grenada	40	41	New Zealand	67	78	Guatemala	105	117	Gabon	200	155
Czech Republic	0	1	Iceland	40	41	Finland	70	80	Oman	107	118	Kazakhstan	200	155
Denmark	0	1	Suriname	40	41	Tonga	70	80	Kyrgyz Republic	110	119	Tunisia	200	155
Estonia	0	1	Sweden	40	41	Saudi Arabia	73	82	Nepal	110	119	Zambia	200	155
France	0	1	Moldova	44	45	China	74	83	Rwanda	110	119	Bangladesh	225	159
Georgia	0	1	Germany	45	46	Ireland	75	84	Seychelles	115	122	Brazil	226	160
Hungary	0	1	North Macedonia	45	46	Papua New Guinea	75	84	Barbados	117	123	Kuwait	227	161
Italy	0	1	Nicaragua	47	48	Puerto Rico	75	84	Madagascar	117	123	Sierra Leone	227	162
Luxembourg	0	1	Haiti	48	49	Eswatini	76	87	Pakistan	118	125	Uruguay	231	163
Netherlands	0	1	Belize	50	50	Fiji	76	87	Paraguay	120	126	Lao PDR	235	164
Norway	0	1	Bhutan	50	50	Guyana	78	89	Antigua and Barbuda	121	127	Angola	240	165
Poland	0	1	Chile	50	50	Benin	80	90	Comoros	124	128	Azerbaijan	250	166
Portugal	0	1	Cyprus	50	50	Costa Rica	80	90	Cabo Verde	125	129	Nigeria	250	166
Romania	0	1	Dominica	50	50	Honduras	80	90	Guinea	128	130	Trinidad and Tobago	250	166
San Marino	0	1	El Salvador	50	50	St. Vincent and the Grenadines	80	90	Mauritius	128	130	Solomon Islands	257	169
Slovak Republic	0	1	Kosovo	50	50	West Bank and Gaza	80	90	Gambia, The	133	132	**Australia**	**264**	**170**
Slovenia	0	1	Libya	50	50	Taiwan, China	84	95	Côte d'Ivoire	136	133	Tanzania	275	171
Spain	0	1	Peru	50	50	Equatorial Guinea	85	96	Indonesia	139	134	Uzbekistan	292	172
Albania	10	21	Bulgaria	52	59	Burkina Faso	86	97	Vietnam	139	135	Maldives	300	173
Korea, Rep.	11	22	Philippines	53	60	Brunei Darussalam	90	98	Myanmar	140	136	Cameroon	306	174
Hong Kong SAR, China	12	23	Japan	54	61	Colombia	90	98	United Arab Emirates	140	136	Kiribati	310	175
Dominican Republic	15	24	South Africa	55	62	Jamaica	90	98	Burundi	150	138	Liberia	330	176
Marshall Islands	20	25	Turkey	55	62	Lesotho	90	98	Qatar	150	138	Tajikistan	330	176
Bosnia and Herzegovina	22	26	India	58	64	Mauritania	92	102	Ghana	155	140	Malawi	342	178
Bolivia	25	27	Sri Lanka	58	64	Russian Federation	92	102	**Canada**	**156**	**141**	Afghanistan	344	179
Malta	25	27	Argentina	60	66	Djibouti	95	104	Guinea-Bissau	160	142	Namibia	348	180
Togo	25	27	Belarus	60	66	Senegal	96	105	Mozambique	160	142	Somalia	350	181
United Kingdom	25	27	Central African Republic	60	66	Thailand	97	106	Congo, Rep.	165	144	Algeria	374	182
Montenegro	26	31	Ecuador	60	66	Armenia	100	107	Zimbabwe	170	145	Sudan	428	183
Switzerland	27	32	Iran, Islamic Rep.	60	66	Bahrain	100	107	Ethiopia	175	146	Congo, Dem. Rep.	500	184
Lithuania	28	33	Israel	60	66	Cambodia	100	107	Botswana	179	147	Bahamas, The	550	185
Greece	30	34	Mexico	60	66	Egypt, Arab Rep.	100	107	Samoa	180	148	Syrian Arab Republic	725	186
Mali	33	35	Micronesia, Fed. Sts.	60	66	Jordan	100	107	Chad	188	149	Iraq	1800	187
Latvia	35	36	Panama	60	66	Lebanon	100	107	Vanuatu	190	150	Eritrea	-9999	N/A
Malaysia	35	36	United States	60	66	Palau	100	107	Kenya	191	151	Venezuela	-9999	N/A
Serbia	35	36	St. Lucia	63	76	St. Kitts and Nevis	100	107	Ukraine	192	152	Yemen, Rep.	-9999	N/A

Source: CSLS Calculations, based on the World Bank Report.

Panel D: Cost to import: Documentary compliance (USD), 2020

Country	Cost	Ranking	Country	Cost	Ranking	Country	Cost	Ranking	Country	Cost	Ranking	Country	Cost	Ranking
Austria	0	1	Singapore	40	38	Eswatini	76	77	Rwanda	121	115	Tajikistan	260	153
Belarus	0	1	Suriname	40	38	China	77	78	Oman	124	116	Côte d'Ivoire	267	154
Belgium	0	1	Moldova	41	41	Micronesia, Fed. Sts.	80	79	Cabo Verde	125	117	Saudi Arabia	267	154
Bulgaria	0	1	Kosovo	42	42	Nepal	80	79	Bahrain	130	118	Niger	282	156
Croatia	0	1	Marshall Islands	43	43	New Zealand	80	79	Pakistan	130	118	Sri Lanka	283	157
Czech Republic	0	1	Thailand	43	43	Peru	80	79	Lebanon	135	120	United Arab Emirates	283	157
Denmark	0	1	Bhutan	50	45	Mongolia	83	83	Paraguay	135	120	Uruguay	285	159
Estonia	0	1	Brunei Darussalam	50	45	Papua New Guinea	85	84	Tunisia	144	122	Qatar	290	160
Finland	0	1	Chile	50	45	West Bank and Gaza	85	84	Tonga	148	123	Uganda	296	161
France	0	1	Colombia	50	45	Nicaragua	86	86	Barbados	150	124	Somalia	300	162
Germany	0	1	Cyprus	50	45	Iran, Islamic Rep.	90	87	Haiti	150	124	Congo, Rep.	310	163
Greece	0	1	Dominica	50	45	Jamaica	90	87	Madagascar	150	124	Kuwait	332	164
Hungary	0	1	Grenada	50	45	Lesotho	90	87	Zimbabwe	150	124	South Sudan	350	165
Iceland	0	1	North Macedonia	50	45	Mali	90	87	Gambia, The	152	128	Bangladesh	370	166
Italy	0	1	Panama	50	45	St. Kitts and Nevis	90	87	Russian Federation	153	129	Tanzania	375	167
Kazakhstan	0	1	Turkey	55	54	St. Vincent and the Grenadines	90	87	Malawi	162	130	Sierra Leone	387	168
Latvia	0	1	Hong Kong SAR, China	57	55	Comoros	93	93	Ukraine	162	130	Algeria	400	169
Lithuania	0	1	Fiji	58	56	Seychelles	93	93	**Canada**	**163**	**132**	Mauritania	400	169
Luxembourg	0	1	Libya	60	57	St. Lucia	98	95	Indonesia	164	133	Liberia	405	171
Malta	0	1	Malaysia	60	57	Antigua and Barbuda	100	96	Mauritius	166	134	Sudan	420	172
Netherlands	0	1	Montenegro	60	57	Armenia	100	96	Gabon	170	135	Angola	460	173
Norway	0	1	Mozambique	60	57	**Australia**	**100**	**96**	Zambia	175	136	Ghana	474	174
Poland	0	1	Guyana	63	61	Djibouti	100	96	Guinea	180	137	Central African Republic	500	175
Portugal	0	1	Namibia	63	61	India	100	96	Maldives	180	137	Chad	500	175
Romania	0	1	Taiwan, China	65	63	Mexico	100	96	Vanuatu	183	139	Iraq	500	175
Slovak Republic	0	1	Botswana	67	64	Palau	100	96	Vietnam	183	139	Senegal	545	178
Slovenia	0	1	El Salvador	67	64	San Marino	100	96	Georgia	189	141	Bahamas, The	550	179
Spain	0	1	Philippines	68	66	United States	100	96	Jordan	190	142	Nigeria	564	180
Sweden	0	1	Equatorial Guinea	70	67	Brazil	107	105	Burkina Faso	197	143	Syrian Arab Republic	742	181
United Kingdom	0	1	Honduras	70	67	Japan	107	105	Azerbaijan	200	144	Ethiopia	750	182
Albania	10	31	Israel	70	67	Benin	110	107	Kyrgyz Republic	200	144	Congo, Dem. Rep.	765	183
Bosnia and Herzegovina	27	32	South Africa	73	70	Kenya	115	108	Guinea-Bissau	205	146	Cameroon	849	184
Korea, Rep.	27	32	Belize	75	71	Lao PDR	115	108	Myanmar	210	147	Afghanistan	900	185
Switzerland	27	32	Costa Rica	75	71	Timor-Leste	115	108	Solomon Islands	215	148	Egypt, Arab Rep.	1000	186
Bolivia	30	35	Ecuador	75	71	Morocco	116	111	Samoa	230	149	Burundi	1025	187
Serbia	35	36	Ireland	75	71	Argentina	120	112	Uzbekistan	242	150	Eritrea	-9999	N/A
Guatemala	37	37	Puerto Rico	75	71	Cambodia	120	112	Trinidad and Tobago	250	151	Venezuela	-9999	N/A
Dominican Republic	40	38	São Tomé and Príncipe	75	71	Kiribati	120	112	Togo	252	152	Yemen, Rep.	-9999	N/A

Source: CSLS Calculations, based on the World Bank Report.

Table 2: Dealing with Construction Permits (Number of Days), 2020

Country	Days	Ranking	Country	Days	Ranking	Country	Days	Ranking	Country	Days	Ranking	Country	Days	Ranking
Korea, Rep.	27.5	1	Rwanda	97	37	Mali	124	77	Namibia	160	115	Guyana	208	153
Singapore	35.5	2	Niger	98	40	Oman	125	78	Portugal	160	115	Belgium	212	154
Marshall Islands	38	3	Armenia	99	41	Pakistan	125	78	Netherlands	161	117	France	213	155
United Arab Emirates	47.5	4	Solomon Islands	99	41	Cameroon	126	80	Côte d'Ivoire	163	118	Papua New Guinea	217	156
Malaysia	53	5	Serbia	99.5	43	Germany	126	80	Congo, Rep.	164	119	Central African Republic	219	157
Samoa	57	6	Saudi Arabia	100	44	Iran, Islamic Rep.	130	82	Ireland	164	119	Austria	222	158
Morocco	58	7	Turkey	100	44	Algeria	131	83	Puerto Rico	165	121	Suriname	223	159
Georgia	63	8	Cabo Verde	101	46	South Sudan	131	83	Russian Federation	165	121	Nicaragua	225	160
Denmark	64	9	Botswana	102	47	Colombia	132	85	Vietnam	166	123	Chad	226	161
Finland	65	10	Montenegro	102	47	Ecuador	132	85	Iraq	167	124	Guatemala	226	161
Jordan	66	11	Kazakhstan	102.5	49	Honduras	132	85	Kyrgyz Republic	167	124	Bolivia	235	163
São Tomé and Príncipe	67	12	Estonia	103	50	Tunisia	133	88	Togo	168.5	126	Kosovo	237	164
Hong Kong SAR, China	69	13	Kuwait	103	50	Ethiopia	136	89	Ghana	170	127	Czech Republic	246	165
Burundi	70	14	Mauritania	104	52	Mongolia	137	90	Egypt, Arab Rep.	173	128	Uzbekistan	246	165
Bahrain	71	15	Nigeria	105	53	Peru	137	90	Gambia, The	173	128	Slovenia	247.5	167
Ukraine	72.5	16	Panama	105	53	Poland	137	90	Senegal	177	130	**Canada**	**249**	**168**
Lithuania	74	17	St. Kitts and Nevis	105	53	Costa Rica	138	93	Zimbabwe	178	131	Trinidad and Tobago	254	169
Tonga	77	18	India	106	56	Maldives	140	94	Malta	179	132	Sudan	255	170
United States	81	19	Comoros	107	57	Jamaica	140.5	95	Bahamas, The	180	133	Romania	260	171
Mexico	82	20	Japan	108	58	Fiji	141	96	Bosnia and Herzegovina	180	133	Uruguay	265	172
Taiwan, China	82	20	West Bank and Gaza	108	58	Belize	142	97	Greece	180	133	Bangladesh	274	173
Brunei Darussalam	83	22	Norway	109.5	60	Guinea-Bissau	143	98	Sierra Leone	182	136	Gabon	275	174
Iceland	84	23	China	111	61	Antigua and Barbuda	144	99	Lesotho	183	137	Lebanon	276	175
Micronesia, Fed. Sts.	85	24	Seychelles	113	62	Equatorial Guinea	144	99	Angola	184	138	Moldova	278	176
Sri Lanka	86	25	Thailand	113	62	San Marino	145.5	101	Tanzania	184	138	Slovak Republic	300	177
United Kingdom	86	25	Uganda	113	62	Croatia	146	102	Kiribati	185	140	El Salvador	310	178
Liberia	87	27	Azerbaijan	116	65	Djibouti	146	102	Zambia	188	141	Argentina	318	179
Qatar	87.5	28	Eswatini	116	65	Grenada	146	102	Italy	189.5	142	Albania	324	180
Benin	88	29	St. Lucia	116	65	Spain	147	105	Dominica	191	143	Brazil	338	181
Myanmar	88	29	Sweden	117	68	Bhutan	150	106	Latvia	192	144	Barbados	377	182
Palau	90	31	Mozambique	118	69	Guinea	151	107	Hungary	192.5	145	Venezuela, RB	434	183
North Macedonia	91	32	Nepal	118	69	Malawi	153	108	Madagascar	194	146	Cyprus	507	184
Lao PDR	92	33	Philippines	120	71	Luxembourg	155	109	Chile	195	147	Cambodia	652	185
St. Vincent and the Grenadines	92	33	**Australia**	**120.5**	**72**	South Africa	155	109	Afghanistan	199	148	Eritrea	-9999	N/A
New Zealand	93	35	Burkina Faso	121	73	Switzerland	156	111	Indonesia	200	149	Libya	-9999	N/A
Mauritius	95.5	36	Paraguay	121	73	Tajikistan	157	112	Israel	200	149	Somalia	-9999	N/A
Bulgaria	97	37	Congo, Dem. Rep.	122	75	Belarus	158	113	Dominican Republic	206	151	Syrian Arab Republic	-9999	N/A
Haiti	97	37	Vanuatu	123	76	Kenya	159	114	Timor-Leste	207	152	Yemen, Rep.	-9999	N/A

Source: CSLS Calculations, based on the World Bank Report.

Table 3: Enforcing Contracts (Number of Days), 2020

Country	Days	Ranking	Country	Days	Ranking	Country	Days	Ranking	Country	Days	Ranking	Country	Days	Ranking
Singapore	164	1	Vanuatu	430	38	Iraq	520	77	Marshall Islands	616	115	El Salvador	816	153
New Zealand	216	2	United Kingdom	437	40	Malawi	522	78	Mali	620	116	Lao PDR	828	154
Bhutan	225	3	United States	444	41	Ecuador	523	79	Serbia	622	117	Burundi	832	155
Uzbekistan	225	3	United Arab Emirates	445	42	Albania	525	80	Turkey	623	118	Costa Rica	852	156
South Sudan	228	5	Burkina Faso	446	43	Côte d'Ivoire	525	80	Algeria	630	119	Syrian Arab Republic	872	157
Rwanda	230	6	France	447	44	Ethiopia	530	82	Puerto Rico	630	119	Micronesia, Fed. Sts.	885	158
Belarus	275	7	Estonia	455	45	Haiti	530	82	North Macedonia	634	121	Belize	892	159
Azerbaijan	277	8	Samoa	455	45	Brunei Darussalam	540	84	Bahrain	635	122	**Canada**	**910**	**160**
Georgia	285	9	Namibia	460	47	West Bank and Gaza	540	84	Jordan	642	123	Nepal	910	160
Korea, Rep.	290	10	Kenya	465	48	Bahamas, The	545	86	St. Lucia	645	124	Seychelles	915	162
Guinea	311	11	Latvia	469	49	Montenegro	545	86	Yemen, Rep.	645	124	Honduras	920	163
Luxembourg	321	12	Equatorial Guinea	475	50	Jamaica	550	88	Croatia	650	126	Mozambique	950	164
Kosovo	330	13	Antigua and Barbuda	476	51	Congo, Rep.	560	89	Ireland	650	126	Eswatini	956	165
Russian Federation	337	14	Peru	478	52	Bulgaria	564	90	Senegal	650	126	Philippines	962	166
Mexico	341	15	Cambodia	483	53	Tunisia	565	91	Botswana	660	129	Israel	975	167
Tonga	350	16	Sweden	483	53	Kuwait	566	92	Central African Republic	660	129	Argentina	995	168
Japan	360	17	Denmark	485	55	Armenia	570	93	Kiribati	660	131	Egypt, Arab Rep.	1010	169
Kazakhstan	370	18	Finland	485	55	Qatar	570	93	Czech Republic	678	132	Pakistan	1071	170
Lithuania	370	18	Togo	488	57	San Marino	575	95	Poland	685	133	Cyprus	1100	171
Mauritania	370	18	Eritrea	490	58	Saudi Arabia	575	95	Grenada	688	134	Italy	1120	172
Mongolia	374	21	Mauritius	490	58	Somalia	575	95	Libya	690	135	Gabon	1160	173
Nigeria - Lagos	376	22	Nicaragua	490	58	St. Kitts and Nevis	578	98	Djibouti	695	136	Myanmar	1160	173
Ukraine	378	23	Uganda	490	58	Guyana	581	99	Ghana	710	137	Slovenia	1160	173
Niger	380	24	China	496	62	Moldova	585	100	Venezuela, RB	720	138	São Tomé and Príncipe	1185	176
Hong Kong SAR, China	385	25	Solomon Islands	497	63	Dominican Republic	590	101	Lebanon	721	139	Timor-Leste	1285	176
Austria	397	26	Germany	499	64	Bolivia	591	102	Uruguay	725	140	Colombia	1288	178
Fiji	397	27	Belgium	505	65	Papua New Guinea	591	102	Dominica	741	141	Angola	1296	179
Norway	400	28	Iran, Islamic Rep.	505	65	Benin	595	104	Chad	743	142	Liberia	1300	180
Vietnam	400	28	Malta	505	65	Bosnia and Herzegovina	595	104	Portugal	755	143	Sri Lanka	1318	181
Australia	**402**	**30**	Comoros	506	68	St. Vincent and the Grenadines	595	104	Gambia, The	758	144	Barbados	1340	182
Indonesia	403	31	Morocco	510	69	Oman	598	107	Maldives	760	145	Trinidad and Tobago	1340	182
Kyrgyz Republic	410	32	Spain	510	69	Switzerland	598	107	Slovak Republic	775	146	Guatemala	1402	184
Zimbabwe	410	32	Taiwan, China	510	69	South Africa	600	109	Panama	790	147	Bangladesh	1442	185
Iceland	417	34	Romania	512	72	Hungary	605	110	Cameroon	800	148	India	1445	186
Thailand	420	35	Netherlands	514	73	Paraguay	606	111	Brazil	801	149	Afghanistan	1642	187
Cabo Verde	425	36	Sierra Leone	515	74	Congo, Dem. Rep.	610	112	Palau	810	150	Greece	1711	188
Malaysia	425	36	Tanzania	515	74	Zambia	611	113	Sudan	810	150	Suriname	1715	189
Tajikistan	430	38	Chile	519	76	Lesotho	615	114	Madagascar	811	152	Guinea-Bissau	1785	190

Source: CSLS Calculations, based on the World Bank Report.

Table 4: Getting Electricity (Number of Days), 2020

Country	Days	Ranking	Country	Days	Ranking	Country	Days	Ranking	Country	Days	Ranking	Country	Days	Ranking
United Arab Emirates	7	1	Antigua and Barbuda	42	39	Portugal	65	75	Algeria	84	115	Pakistan	113	153
Korea, Rep.	13	2	Finland	42	39	Tunisia	65	75	Ireland	85	116	Poland	113	153
St. Kitts and Nevis	18	3	Tonga	42	39	Norway	66	79	Lao PDR	87	117	Suriname	113	153
Iceland	22	4	Chile	43	42	Papua New Guinea	66	79	Moldova	87	117	Afghanistan	114	156
Taiwan, China	22	4	Congo, Dem. Rep.	44	43	Togo	66	79	Colombia	88	119	Lesotho	114	156
Austria	23	6	Guatemala	44	43	Uganda	66	79	Uzbekistan	88	119	Zambia	117	158
Hong Kong SAR, China	24	7	Qatar	44	43	Bahamas, The	67	83	Lebanon	89	121	Libya	118	159
Malaysia	24	7	United Kingdom	46	46	Chad	67	83	São Tomé and Príncipe	89	121	Comoros	120	160
Brunei Darussalam	25	9	West Bank and Gaza	47	47	Dominican Republic	67	83	Slovak Republic	89	121	Mali	120	160
Singapore	26	10	Uruguay	48	48	Marshall Islands	67	83	Benin	90	124	Vanuatu	120	160
St. Lucia	26	10	Kuwait	49	49	Mauritania	67	83	United States	90	124	Bangladesh	125	163
Germany	28	12	Nepal	49	49	Mauritius	67	83	Estonia	91	126	Eswatini	125	164
Oman	30	13	Greece	51	51	Paraguay	67	83	Argentina	92	127	Palau	125	164
Rwanda	30	13	Iraq	51	51	Peru	67	83	Timor-Leste	93	128	Serbia	125	164
Thailand	30	13	Djibouti	52	53	Senegal	68	91	Ethiopia	95	129	Malawi	127	167
Morocco	31	16	Niger	52	53	Bahrain	69	92	Jamaica	95	129	Brazil	129	168
Vietnam	31	16	Seychelles	52	53	Bosnia and Herzegovina	69	92	Spain	95	129	Montenegro	131	169
China	32	18	St. Vincent and the Grenadines	52	53	Guinea	69	92	Angola	97	132	Congo, Rep.	134	170
Indonesia	32	18	Sweden	52	53	Myanmar	70	95	Kenya	97	132	**Canada**	**137**	**171**
Puerto Rico	32	18	Côte d'Ivoire	53	58	Sudan	70	95	Kiribati	97	132	Cyprus	137	171
Samoa	34	21	Egypt, Arab Rep.	53	58	Albania	71	97	North Macedonia	97	132	Syrian Arab Republic	146	173
Turkey	34	21	France	53	58	Georgia	71	97	Central African Republic	98	136	Gabon	148	174
Panama	35	23	India	53	58	Kazakhstan	71	97	Tajikistan	98	136	Burundi	158	175
Saudi Arabia	35	23	Solomon Islands	53	58	Armenia	72	100	Mexico	100	138	Burkina Faso	169	176
Bolivia	36	25	Ghana	55	63	Ecuador	74	101	Sri Lanka	100	138	**Belgium**	**171**	**177**
Kosovo	36	25	Jordan	55	63	**Australia**	**75**	**102**	Gambia, The	101	140	Romania	174	178
Namibia	37	27	Nicaragua	55	63	Italy	75	102	Israel	102	141	Cambodia	179	179
Philippines	37	27	Luxembourg	56	66	Maldives	75	102	Netherlands	102	141	Venezuela, RB	208	180
Denmark	38	29	Czech Republic	58	67	Botswana	77	105	Belarus	105	143	Guinea-Bissau	257	181
Grenada	38	29	New Zealand	58	67	Iran, Islamic Rep.	77	105	Malta	105	143	Hungary	257	181
San Marino	38	29	Belize	60	69	Barbados	78	107	Micronesia, Fed. Sts.	105	143	Bulgaria	262	183
Slovenia	38	29	Haiti	60	69	Mongolia	79	108	Tanzania	105	143	Ukraine	267	184
Costa Rica	39	33	Bhutan	61	71	Cabo Verde	81	109	Equatorial Guinea	106	147	Madagascar	450	185
Honduras	39	33	Dominica	61	71	Fiji	81	109	Zimbabwe	106	147	Liberia	482	186
Switzerland	39	33	Trinidad and Tobago	61	71	Japan	81	109	Latvia	107	149	Eritrea	-9999	N/A
Mozambique	40	36	Cameroon	64	74	Guyana	82	112	South Africa	109	150	Somalia	-9999	N/A
Azerbaijan	41	37	Croatia	65	75	Lithuania	82	112	Nigeria	110	151	South Sudan	-9999	N/A
Russian Federation	41	37	El Salvador	65	75	Sierra Leone	82	112	Kyrgyz Republic	111	152	Yemen, Rep.	-9999	N/A

Source: CSLS Calculations, based on the World Bank Report.