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Doing Business and its Customs-related issues: A study on the Trading across Borders indicators

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Abstract

The purpose of this paper is to discuss the characteristics of “Trading across Borders” – one of the areas covered by the World Bank Group’s *Doing Business*, providing an independent measurement of border regulations affecting business operations. *Doing Business* is a systematic survey project aiming to encourage countries whose businesses take part in it to compete for better grades in improving the quality of their regulatory practices; the indicators produced by its Trading across Borders initiative function as a benchmarking tool to measure the performance of border services across economies. Trading across Borders' scope covers the trade facilitation efforts in each economy; Customs’ participation in this survey is of vital importance in ensuring the fair and objective assessment of such efforts, despite the fact that the survey results show the ‘ease of doing business’ from the private sector perspective. As the pattern of foreign trade practice largely depends on the distinct economic and geographical conditions in individual countries, Customs’ technical contribution to the survey exercise could ensure that common practices in each economy are reflected in Trading across Borders and the figures for its relevant indicators.

Key words

Customs, Doing Business, Trading across Borders, Performance Measurement, Trade Facilitation

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I. Introduction

The World Bank Group's *Doing Business* provides a good basis for a comprehensive evaluation of the efficiency of regulatory practices observed in each country/territory (hereinafter referred to as an 'economy' when denoting the subject jurisdiction of this study) from a private sector perspective. "Trading across Borders", which is a constituent part of *Doing Business*, is a survey focused on economies' performance with respect to border regulatory services; a number of administrations and other border agencies are greatly concerned about how accurately their efforts with respect to trade facilitation are reflected in the survey results, particularly by the Trading across Borders indicators. The fact that economies are ranked can be said to offer motivation to compete for higher rankings, while creating as attractive a trading business environment as possible for the sake of enterprises, including foreign investors; e.g. Vietnam, an economy which *Doing Business* 2016 ranked 108th on the Trading across Borders index, jumped to 93rd in the 2017 edition – the fourth among the Association of Southeast Asian Nations (ASEAN) member economies, behind Singapore, Thailand and Malaysia – as a result of its effort to simplify Customs procedures and reduce clearance times while working closely with affected businesses such as Ford Vietnam[1]. At the same time, however, the fact that the survey is often and widely used as an objective benchmarking tool has caused some controversy and resulted in some apprehension amongst Customs and other border agencies. Furthermore, questions have been raised by several Customs administrations as to how accurate and systematic the survey can be in assessing their performance. Such concerns, which may result in questions about fairness in terms of methodology when expressed publically, seem to derive partly from doubts about the objectivity of the survey.

The initial part of this article briefly presents what Trading across Borders in *Doing Business* purports to show. In the following section, the article demonstrates and clarifies the issues that Customs administrations may have regarding the survey from a technical point of view. The article concludes with some key suggestions for areas of improvement which could render the survey more inclusive and its results more widely accepted.

II. Features of *Doing Business*

Distance to frontier scoring

Doing Business aims to 'provide quantitative measures to business regulation in 11 regulatory areas that are central to how the private sector functions'[2], particularly focusing on 'regulations that affect small and medium-size enterprises, operating in the

[1] USAID (2017).
[2] World Bank (2017), v.

largest business city of an economy'[3]. While *Doing Business* covers a wide spectrum of topics, it does not contain the full range of indicators that relate to the business environment of an economy (e.g. anti-corruption and public sector integrity initiatives). Among the eleven areas of business regulation, Trading across Borders offers an assessment of an economy's regulatory efficiency as reflected in 'the time and cost required for the logistical process of exporting and importing goods'[4]; however, the relevant indicators do not, for example, measure the cost of tariffs or any kind of border taxes[5] , nor do they capture other aspects of border management (e.g. utilization of risk management techniques, partnership with the private sector) in a manner that quantifies the economy's performance with respect to border services.

As one of the *Doing Business* topics, and that which most closely impacts Customs, Trading across Borders merits particular attention. *Doing Business* rates economies based on their 'business friendliness', using the "distance to frontier" score, which is aimed at showing the distance (in relative terms) of each economy to the "frontier" setter – a certain economy deemed to have 'the best performance observed on each of the indicators across all economies in the *Doing Business* sample'[6] as a metric. The score is calculated for each *Doing Business* topic and then across the 10 topics by using a simple averaging approach: 'weighting all topics equally and, within each topic, giving equal weight to each of the topic components'[7]. This consistent approach aggregates most of the relevant data obtained through the case study of a subject economy and converts them into the distance to frontier scores for that economy. The ranking of economies, often the subject of so much attention, is the result of sorting the aggregate distance to frontier scores.

[Box 1] The process of calculating distance to frontier score

Step 1: Identify the frontier and the worst for each of the component indicators.

The "worst", as used by *Doing Business*, denotes the lowest-ranked figure – time and cost – for the indicator.

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[3] Idem. 1. The areas of business regulations in which *Doing Business* has a set of indicators are 'starting a business', 'dealing with construction permits', 'getting electricity', 'registering property', 'getting credit', 'protecting minority investors', 'paying taxes', 'trading across borders', 'enforcing contracts', 'resolving insolvency' and 'labor market regulation'.
[4] Id. 15.
[5] The *Doing Business* publications (or reports) may highlight the developments in some economies towards efficient business regulation for each area of topics, including Trading across Borders. This is nonetheless irrelevant to the quantitative outcome of country-by-country benchmarking exercise; i.e. the distance to frontier score and the ranking across economies. World Bank (2018) does not have any narrative of country's practice in the area of Trading across Borders, although previous year's edition focused on it.
[6] World Bank (2017), 5.
[7] Id. 167.

Economy	Time to export: Border compliance (hours)		Cost to export: Border compliance (USD)		Time to export: Documentary compliance (hours)		Cost to export: Documentary compliance (USD)		...
A	0	**frontier**	0	**frontier**	1	**frontier**	0	**frontier**	
...									
F	5		106		4		92		
...									
K	52		261		7		107		
...									
P	66		602		70		220		
...									
U	106		382		38		92		
...									
Z	515	**worst**	2223	**worst**	698	**worst**	2500	**worst**	

Step 2: Remove the outlier and use the 95th percentile for each of the component indicators.

Economy	Time to export: Border compliance (hours)		Cost to export: Border compliance (USD)		Time to export: Documentary compliance (hours)		Cost to export: Documentary compliance (USD)		...
A	0	frontier	0	frontier	1	frontier	0	frontier	
...									
F	5		106		4		92		
...									
K	52		261		7		107		
...									
P	66		602		70		220		
...									
U	106		382		38		92		
...									
	xx	95th (worst)	xx	95th (worst)	xx	95th (worst)	xx	95th (worst)	
...									
~~Z~~	~~515~~	~~worst~~	~~2223~~	~~worst~~	~~698~~	~~worst~~	~~2500~~	~~worst~~	

Step 3: Rescale each of the component indicators y using the linear transformation, *(worst – y)/(worst – frontier)*, and convert it into the score.

Economy	Time to export: Border compliance (hours)	Score	Cost to export: Border compliance (USD)	Score	Time to export: Documentary compliance (hours)	Score	Cost to export: Documentary compliance (USD)	Score	...
A	0	xx	0	xx	1	xx	0	xx	
...									
F	5	xx	106	xx	4	xx	92	xx	
...									
K	52	xx	261	xx	7	xx	107	xx	
...									
P	66	xx	602	xx	70	xx	220	xx	
...									
U	106	xx	382	xx	38	xx	92	xx	
...									
Z	515	xx	2223	xx	698	xx	2500	xx	

Step 4: Aggregate the scores obtained for individual indicators for each economy through simple averaging into the distance to frontier score.

Economy	Distance to frontier score: Trading across Borders
A	100
...	
F	91.87
...	
K	79.39
...	
P	67.25
...	
U	58.56
...	
Z	1.26

Then, sort the distance to frontier scores of all economies to determine their positions in the ranking.

- Although the chart takes Trading across Borders as an example, *Doing Business* applies this method across topics.

Produced by author based on World Bank (2018), 119-222.

Trading across Borders

Trading across Borders measures the time and cost associated with the two different sets of procedures and formalities – Border compliance and Documentary compliance – adopting a specific scenario for importing or exporting a shipment of goods. Therefore, Trading across Borders consists of 8 different indicators in total: *Time/Cost* (2) x *Border compliance*/*Documentary compliance* (2) x *Import*/*Export* (2). For these indicators, the survey has been conducted through a case study which is designed to test the ease of trading business in each surveyed economy. Key assumptions of Trading across Borders case study are the following[8]:

- *Import*/*Export*: A shipment travels from a warehouse in the largest business city of the exporting economy to a warehouse in the largest business city of the importing economy. For 11 out of all 190 economies, the second largest business city is also included in the study.

- *Import*: Each economy imports a standardized shipment of 15 metric tons of containerized auto parts (HS8708) from its natural import partner – the economy from which it imports the largest value (price x quantity) of auto parts.

- *Export*: Each economy exports the product (not necessarily containerized)[9] associated with its comparative advantage (defined by the largest export value) to its natural export partner – the economy that is the largest purchaser of this product. However, certain categories of goods are excluded from the list of possible export products.

- *Import/Export*: To identify the trading partner and export product for each economy, *Doing Business* refers to international databases such as the United Nations Commodity Trade Statistics Database (UN Comtrade). For economies for which the data on trade flow are not available, *Doing Business* consults ancillary government sources (various ministries and departments) and World Bank Group country offices.

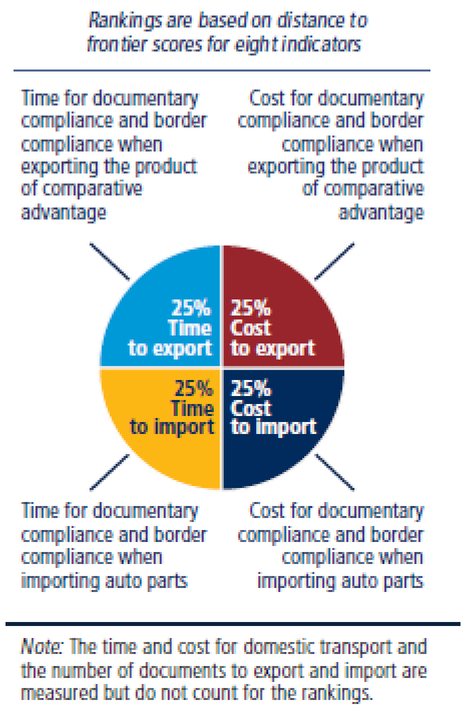
- *Documentary compliance* captures the time and cost (for obtaining, preparing, processing, presenting and submitting documents) associated with compliance with the documentary requirements of all government agencies of the origin economy, the destination economy and any transit economies.

- *Border compliance* captures the time and cost associated with compliance with the economy's Customs regulations and with regulations relating to other inspections that are mandatory (within the economy, not its trading partner) in order for the shipment to cross the economy's border (either to be imported or exported), as well as the time and cost for handling that takes place at its most widely used port or border.

[8] *Doing Business* 'Methodology'-'Trading across Borders' website: http://www.doingbusiness.org/Methodology/Trading-Across-Borders.

[9] An official brochure prepared by the World Bank Group indicates that '15 metric tons of shipment' requirement also applies to export case studies.

[Box 2] Components of Trading across Borders (*Doing Business* 2016 – current)



Documentary compliance
Obtaining, preparing and submitting documents during transport, clearance, inspections and port or border handling in origin economy
Obtaining, preparing and submitting documents required by destination economy and any transit economies
Covers all documents required by law and in practice, including electronic submissions of information as well as non-shipment-specific documents necessary to complete the trade
Border compliance
Customs clearance and inspections by customs
Inspections by other agencies (if applied to more than 20% of shipments)
Port or border handling at most widely used port or border of economy
Domestic transport
Loading and unloading of shipment at warehouse, dry port or border
Transport by most widely used mode between warehouse and terminal or dry port
Transport by most widely used mode between terminal or dry port and most widely used border or port
Traffic delays and road police checks while shipment is en route

Doing Business 'Trading Across Borders Methodology' website: http://www.doingbusiness.org/Methodology/Trading-Across-Borders.

Comparison with other indexes

While the Trading across Borders indicators have been considered as a tool to measure the outcomes of government's trade facilitation efforts in each economy, other indexes have been developed by international organizations and other entities to measure policy inputs or outcomes -or a mixture of both- in the area of trade facilitation[10].

The latest edition of the World Banks' Logistics Performance Index (LPI), a benchmarking tool focused on trade logistics, covers 160 countries and purports to show the logistical "friendliness" of each of them from commercial operators' perspective. The LPI invites freight forwarders and express carriers to rate countries where they operate using the scores 1 (very low) to 5 (very high)[11]. The survey comprises six areas of evaluation: the efficiency of Customs and border management clearance; the quality of trade and transport infrastructure; the competence and quality of logistics services; the ability to track and trace consignments; and the frequency with which shipments reach consignees within scheduled or expected delivery times[12]. As it transpires, there is a certain degree of correlation between the ranking of economies in Trading across Borders and that in LPI[13].

The Organization for Economic Cooperation and Development (OECD) has developed Trade Facilitation Indicators (TFIs), which cover the full spectrum of Customs' and other border procedures that are addressed by the World Trade Organization (WTO)'s Agreement on Trade Facilitation (TFA). One of the objectives of the TFIs is to inform countries of 'the state of implementation of various policy areas and measures' included in the TFA, thereby allowing them 'to monitor their progress since 2012 and to make comparisons with other countries or groups of countries of interest'[14]. To date, 133 countries have been assessed across 11 procedural categories: information availability; consultations; advance rulings; appeal procedures; fees and charges; documentation requirements; automation of border procedures; streamlining of border processes; domestic border agency co-operation; cross-border agency co-operation; governance and impartiality[15].

The World Economic Forum's Enabling Trade Index (ETI), the 2016 edition of which covers 136 economies collectively accounting for more than 98 percent of global trade, 'assesses the extent to which economies have in place institutions, policies, infrastructures and services facilitating the free flow of goods over borders and to their destination'. The ETI is made up of a substantial number of indicators measuring different trade-enabling factors, which are organized into 4 different sub-indexes: market access; border administration; infrastructure; and operating environment[16]. For 'border administration' which is the most pertinent sub-index, the following indicators are

[10] WTO (2015), 66.
[11] Saltine and Georgieva (2016).
[12] World Bank (2016), 6.
[13] Saltine and Georgieva (2016).
[14] http://www.oecd.org/tad/facilitation/TFIs-overview-available-tools-september-2015.pdf.
[15] ESCAP-OECD (2017), 18.
[16] WEF-GATF (2016), 13-15.

provided (13 in total): Customs services index (1 indicator); efficiency of the clearance process (1); border compliance: time and cost to export/import (4); documentary compliance: time and cost to export/import (4); irregular payments and bribes: imports/exports (1); time predictability of import procedures (1); and Customs transparency index (1)[17]. As such, the ETI has incorporated the Trading across Borders indicators which were originally used for *Doing Business*, with a view to revealing the full extent of the trade facilitation efforts for each of the countries concerned.

Among its various fiscal assessment tools, the International Monetary Fund has established the Revenue Administration Fiscal Information Tool (RA-FIT) initiative, which is currently known as the International Survey on Revenue Administration (ISORA), a survey project aiming to 'provide a convenient platform for gathering performance indicators for [C]ustoms and [T]ax administrations'[18]. The first round of the RA-FIT survey and the published outcomes – mainly focused on inefficiencies in revenue collection – covered both Tax and Customs administrations (with limited scope and fewer subjects for the latter[19]) from IMF member countries; however, the latest version (second round) 'does not cover issues specific to [C]ustoms administration[s] but focuses rather on [T]ax administration data'[20]. Some technical arrangement will be required before the ISORA successfully incorporates the database and performance indicators for Customs administrations.

Relevance to Customs

All of the Trading across Borders indicators relate to Customs procedures, while encompassing the time associated with procedures required by other governmental agencies and those by port and border authorities as well. Among other things, the time for Border compliance shares a similar objective as that of the Time Release Study, which specifically measures the time required for Customs clearance. Documentary compliance also concerns Customs procedures as it quantifies the burden of overall document handling primarily aimed at Customs clearance. In conjunction with this, Trading across Borders shows the number of documents required to complete all the necessary procedures according to a given scenario for the import/export case study. As it is provided for reference purposes, nonetheless, the number in itself is neither part of individual indicators nor does it directly affect the calculation of distance to frontier score[21].

In most cases, the cost for Border/Documentary compliance is based on the experiences of the private sector survey contributors in importing or exporting certain

[17] ESCAP-OECD (2017), 36.
[18] IMF (2017), 63.
[19] The publication of the first round of survey showed the results regarding trade facilitation efforts, including the time measured for the release of goods.
[20] Cleary et al. (2017), xi.
[21] The more documents traders are required to prepare, the higher the time and cost for Documentary compliance will be.

shipments of goods. It provides a good insight into the experiential trade cost – the actual cost for completing import/export procedures in a certain economy. It is important to note that Trading across Borders is not designed to show business operators' subjective evaluation of each economy; however, there seems to be some room for improvement towards the enhanced objectivity of the survey. In general terms, there is a question about how representative the figures are, particularly given the fact that primary data are obtained from selected entities who might have observed only a certain aspect of import/export practice for an economy by using a particular trading scenario. Another question is whether the assessment of cost has been made in an objective manner; *Doing Business* does not seem to provide detailed information in this regard so far.

At any rate, the Trading across Borders indicators, whether individually or collectively, measure the performance, if not in absolute terms, of border services across economies from a business point of view and are thus likely to garner significant attention from policy makers and administrators, including ministers and senior officials, who are trying to ensure a well-functioning and results-oriented Customs. By way of example, the government of India, aiming to score higher in the *Doing Business* ranking[22], has taken a series of concrete steps to ease the trading business environment, including the introduction of Single Window Interface for Facilitating Trade, or SWIFT, and the reduction of mandatory documents in number for both import and export processes[23]. Another example is the Latvian State Revenue Service's yearly reports on the evaluation of implementation of its business strategy, in which some figures on Customs clearance have been used as the organization's performance indicators.[24]

III. Issues from the Customs perspective

1. Settings for case study

Trading across Borders' key assumptions for case studies primarily concern the subject economy's import and export products and its natural trading partner (based on such products) – the origin of import and the destination of export. For a subject economy, the positional relationship with its trading partner is a determinant as to how the selected goods should be transported and where such goods should enter or leave the economy.

These settings may have a significant impact on case study results as being reflected in individual indicators; the results are highly dependent on the product used for a subject economy's export and which country/territory is the largest trading partner for the economy over the given product for import and export respectively. In this regard,

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[22] Jain (2016).
[23] More information is available at the Central Board of Excise and Customs (Indian Customs) website: http://www.cbec.gov.in/htdocs-cbec/EaseOfDoingBusiness.
[24] State Revenue Service 2016 Public Report, 7, accessible at: https://www.vid.gov.lv/en/annual-reports.

Procomex[25] has conducted a review of the case study on Brazil, presenting its own alternatives in product, import origin, export destination and means of transport that could be used to better capture the common trade practice for that economy.

Doing Business 2017 assumes that Brazil imports the largest value of auto parts (HS8708) from Argentina, whereas Procomex considers Germany the main supplier of the same products to Brazil. According to Procomex, furthermore, Brazil has only a small portion of imports from Argentina that have been transported through the Port of Santos, a port referred to by *Doing Business* 2017[26]. Moreover, it is uncertain whether conveyance by water is the most widely used mode of transport for Brazil's import from Argentina.

A subject economy's export products for case study represent the sector, whether industrial or agricultural, of its comparative advantage that is normally defined by the largest export value. *Doing Business* 2017 identified soybeans (HS12) for Brazil's exports; Procomex has casted doubts on this choice as the time and cost for the export process is dependent on the relevant authorities' intervention (which is more likely to take place when the agricultural sector is concerned)[27]. As such, product-specific requirements may place an additional burden on exporters, *inter alia*, in the economies whose competitiveness can be seen in the agricultural sector rather than the manufacturing sector.[28]

The same is true of import case studies where only auto parts can be listed as the import products. In China, for instance, the national legislation requires that importers obtain a certain import permit (from the relevant ministry or local authority prior to lodging a Customs declaration) when they import auto parts[29]. It seems unclear whether and how such requirements affect Border compliance indicators for China; however, *Doing Business* 2018 shows ten different documents, including 'Import License approved by the Ministry of Commerce for Mechanical and Electrical Products', which are deemed necessary for importation of certain auto parts from Japan (via Tianjin port to Beijing and via Shanghai port to Shanghai). Therefore, the import products chosen for

[25] Procomex (ALIANÇA PROCOMEX) is a Brazilian organization whose mission is to 'provide a platform for the private sector and government agencies to work together to develop a foreign trade management system that enhances Brazil's competitiveness and its participation in international trade' (original in Portuguese). Procomex website: http://www.procomex.org.br/quem-somos-3/.
[26] Mein et al. (2017), p. 6.
[27] Id, p. 8.
[28] The same recognition can be presumed from the following remark made by *Doing Business*. 'In economies whose top export is an agricultural product, border compliance takes 84% more time (37 more hours) on average than in other economies. The main reason for these differences is that most of economies whose top export is an agricultural product require product specific inspections and procedures (such as fumigation or phytosanitary inspections) to export that product.' *Doing Business* 'Data'-'Trading across Borders'-'Good Practices' website: http://www.doingbusiness.org/data/exploretopics/trading-across-borders/good-practices.
[29] The relevant laws and regulations, including the list of the items concerned, are accessible at Chinese Ministry of Commerce's website (in Chinese): http://www.mofcom.gov.cn/.

case studies may also become a cause of an increase in time and cost that should be reflected in Documentary compliance.

Indeed, the possibility that some commodities could cause substantial time and cost for import and export gives rise to the question of fairness in terms of comparison across economies. Apart from import case studies with the aforementioned characteristics, it can be nonetheless argued that the export products for study should strictly correspond with the leading export industry as defined by the Trading across Borders methodology, in order not to disrupt the consistent approach taken in carrying out case studies as originally planned. Such an argument does make sense particularly in view of mitigating the risk of manipulation – the arbitrary determination of a commodity.

The World Customs Organization (WCO) surveyed Member Customs administrations about their views on the *Doing Business* results. Some respondents from South America expressed concern about the validity of the export case study's reference to agricultural products, assuming that product-specific regulatory requirements could work to the disadvantage of the economies which have put such requirements in place. One of those respondents raised the issue of geographical characteristics which may make it challenging to reflect an economy's representative foreign trade practice in the survey's outcome. More specifically, the current assumption that a shipment travels between the largest business cities of two different economies cannot be readily applied to the economies where external trade does not take place in such a centralized manner.

2. The time and cost measured

What can be seen from the survey?

The Trading across Borders indicators – the time and cost for Documentary/Border compliance – base the figures on the primary data that have been provided by the survey contributors[30]. For *Doing Business* 2018 and earlier editions, only a limited number of Customs administrations took part or got involved in the data collection exercise and the necessary follow-up. It was therefore difficult for them to ascertain how the private sector contributors prepared their raw data, and how the survey project team ensured the reliability of these data.

Data collection for Trading across Borders is aimed at getting a complete, detailed picture concerning the time and cost associated with the completion of a subject economy's border regulations, including documentary requirements, and with the port or border handling in that economy. For instance, transport by land (e.g. trucking) involves immigration control, thereby affecting Border compliance indicators; other examples

[30] For *Doing Business* 2018 (whose survey was conducted in 2017), Trading across Borders involved 2 contributors (the lowest in number) for 36 economies and 10 or more for 37 economies. A full breakdown for all 190 economies is accessible at *Doing Business* 'Contributors' website: http://www.doingbusiness.org/contributors/doing-business.

include trade licensing requirements which may give rise to further administrative burdens particularly related to Documentary compliance indicators. A snapshot showing some relevant details will help to understand where the bottleneck actually occurs in each economy.

In this regard, Trading across Borders in *Doing Business* 2018 makes it clear what the time and cost factors for Border compliance are attributed to and how much respectively. The result of the case study on Belarus, for instance, shows the following time and cost for Border compliance: 1 hour and zero (0 USD) in import; and 5 hours and 108 USD in export. Furthermore, it provides the breakdown of these figures separately in order to reveal a clearer picture with some precision; i.e. 'port or border handling' takes '1.0' hour in import and '1.9' hours in export, and 'clearance and inspections required by [C]ustoms authorities' takes '2.8' hours and cost '107.7' USD in export.

[Box 3] The breakdown of Border compliance on Belarus (*Doing Business* 2018)[31]

Details – Trading across Borders in Belarus – Components of Border Compliance

	Time to Complete (hours)	Associated Costs (USD)
Export: Clearance and inspections required by customs authorities	2.8	107.7
Export: Clearance and inspections required by agencies other than customs	0.0	0.0
Export: Port or border handling	1.9	0.0
Import: Clearance and inspections required by customs authorities	0.0	0.0
Import: Clearance and inspections required by agencies other than customs	0.0	0.0
Import: Port or border handling	1.0	0.0

Belarus' profile for *Doing Business* 2018, accessible at *Doing Business* 'Data' website http://www.doingbusiness.org/data/exploreeconomies/belarus.

There is little information on how *Doing Business* obtained the figures for the individual Trading across Borders indicators following the data collection exercise making use of case studies. Customs and other border authorities, whose primary concern is the cause of such inefficiencies in regulatory practice as reflected in case study results, might be eager to know more about how the survey contributors prepare the primary data, as well as how the *Doing Business* project team subsequently verifies these data. If the relevant authorities are allowed to get involved in the survey exercise

[31] The same information for each of all economies is accessible at http://www.doingbusiness.org/data/exploretopics/trading-across-borders.

to cross-check the submitted data, they will be more convinced of the objectivity of the survey, even if they are dissatisfied with the result.

What should the ideal survey look like?

Doing Business has clarified the composition of some the Trading across Borders indicators – the time and cost for Border compliance (as mentioned earlier). From a Customs point of view, nonetheless, it would be better to elaborate on the current Trading across Borders methodology with a view to measuring the time required for Customs clearance with some precision. Particular attention could be given to importation for the following reasons: (i) import procedures cover many of the characteristics of Customs in operation, including the imposition and payment of Customs duties; (ii) the time required for importation better reflects trade facilitation efforts; and (iii) import case studies referring to auto parts for the import commodities are less likely to involve interventions by authorities other than Customs (e.g. trade control requirements)[32].

Doubts may exist regarding the accuracy and authenticity of such data as being provided by the survey contributors who are said to be trade exerts in many cases but are not necessarily practitioners in the business of trade. In fact, the *Doing Business* team has engaged logistics service providers in collecting the data for Trading across Borders without relying on consultancy, audit or law firms – a certain category of primary contributors for the surveys on other topics[33]. Even so, the Trading across Borders survey form (questionnaire) does not seem to include any specific description on how the contributors are supposed to prepare the data or what method they are expected to employ in dealing with the survey. In addition, the survey has not yet made it clear where the starting and ending points lie for each of the key events that take place between the arrival (at a certain port or border of a subject economy) and release (from the Customs or bonded area in its territory) of a cargo. In other words, there seems to be room for improvement in the measurement with some precision of the time required for each of these events in chronological order.

[Box 4] Trading across Borders questionnaire on Border compliance in import

3. Import Case Study

[32] Product-specific requirements could apply to trade in industrial goods as well. In China, as an example, importation of some kinds of auto parts may involve a certain procedure for import licensing; traders have to request a permit or approval for import from the Ministry of Commerce or a relevant local authority.

[33] For Trading across Borders, the *Doing Business* team at the World Bank gets in touch with foreign trade professionals and the logistics operators, such as Customs brokers and freight forwarders, in the course of the survey. (Information provided by the Bank's responsible personnel over the phone.)

3.1 **Do you have recent experience importing HS 8708: auto parts?**

- Yes/no, and specify what product

3.2 Do you agree that **the most widely used domestic mode of transport** and **national port/border** for this 15 metric ton shipment is [...] and [...]?

- Yes/no, and if not, specify each

3.3.a Please fill in the table with the different procedures required by the customs authorities of [the surveyed economy] for importing the shipment of **HS 8708: auto parts** from [its natural trading partner].

- Complete the table

3.3.b Keeping in mind that procedures can happen **at the same time**, what is the total time and cost (on average) for completing all procedures related to customs clearance in [the surveyed economy]. Please include the overall time and cost from the time customs brokers is hired until all clearance procedures are completed.

- Input the time (hours) and cost (USD) used as the data for the indicators

3.4.a Please fill in the table with the different procedures by any government agencies (i.e. Ministry of Agriculture, Ministry of Industry, Central Bank, etc.) other than customs in [the surveyed economy].

- Complete the table

3.4.b Keeping in mind that procedures can happen **at the same time**, what is the total time and cost (on average) for completing all procedures related to clearance and inspections by government agencies other than customs of [the surveyed economy]?

- Input the time (hours) and cost (USD) used as the data for the indicators

3.5.a Please fill in the table with the different procedures required by **port/border authorities** in [the surveyed economy] for importing this product from [its natural trading partner].

- Complete the table

3.5.b Keeping in mind that procedures can happen **at the same time**, what is the total time and cost (on average) that the shipment remains at the port/border crossing in [the surveyed economy]? Please include the time from when the shipment arrives in the port/border crossing to when it leaves the port/border crossing, including the time the vessel is waiting to enter the port and/or the time in the queue to exit the port/border crossing. Do not include any time spent on the other side of the border with neighboring economy authorities.

- Input the time (hours) and cost (USD) used as the data for the indicators

3.6 Keeping in mind that procedures can happen **at the same time**, what is the total time and cost (on average) for completing all clearance, inspection and port/border handling procedures linked to ALL government agencies of [the surveyed economy]? The answer should be the sum of **3.3.b, 3.4.b and 3.5.b, subtracting the simultaneity** among processes (i.e. if customs clearance happens at the port, the time for border compliance takes the simultaneity into account. If other inspections take place at other locations, the time and cost for theses procedures are added to the time and cost for those that take place at the border).

- Input the time (hours) and cost (USD) used as the data for the indicators

Excerpts from *Doing Business* 2018 survey. Reproduced and edited by author.

When filling out the survey form, the survey contributors are supposed to answer the questions about 'procedures related to Customs' and 'procedures other than Customs' separately; however, these different types of interventions may occur at the same time particularly in cases where Single Window mechanisms operate effectively. Such simultaneity, when captured correctly in a manner that affects the outcome of case studies, could be of great importance in quantifying an economy's border management modernization.

In this regard, the survey form has a separate question item about 'procedures required by ALL government agencies' under which the respondents can subtract the amount of redundancy in time (deriving from the concurrency in carrying out different procedures) from 'the total amount of time and cost (on average) for completing all clearance, inspection and port/border handling procedures'. Nevertheless, a lack of clarity on how to define the starting and ending points for each of these procedures may give rise to doubts regarding the comparability of the time for Border compliance across economies. More specifically, the survey questionnaire refers to the arrival of shipments at a subject economy's port for the starting point of the import process, while asking the respondents to include 'the time the vessel is waiting to enter the port'. In terms of 'procedures related to Customs', the time when the Customs broker is hired can be interpreted as the starting point for the questionnaire. It would seem logical to do away with such ambiguity in view of increased consistency.

Time Release Study

An option that may arise in addressing the above concerns is to leverage some standardized methodology of a time release study, a tool to assess Customs performance in trade facilitation in a quantitative way. The WCO's Time Release Study (TRS) Guide would be of use in exploring the possibility of adding some elaboration to the current Trading across Borders methodology.

The first issue is how *Doing Business* could collect from the survey contributors such data as being reliable enough to be used for the scoring and ranking exercises, whose outcome might be an incentive for economies to take some concrete actions. The TRS Guide states that sampling should be used in cases where it is difficult to capture all the relevant transactions in a defined period. Even though the current Trading across Borders methodology (that has been made accessible online) does not make any specific reference to how each contributor can obtain experimental figures, a sound sampling method that is applied properly can help to increase the utility of the outcome of case studies. In view of this, the TRS Guide includes the following remark: *Care should be taken to ensure that the samples are representative of the transactions covered by the study (sample reliability), as this would reflect the degree of variability* *that exists in the population*[34]. The larger the sample size, the more certain it is that their answers truly reflect the population[35]; in this context, the sample size is synonymous with the number of transactions that fall within a given scope of the survey. In more concrete terms, the guide refers to: *For a homogeneous population, a sample size of 30, selected randomly, should suffice*[36]. This may be particularly true of Trading across Borders import case studies that are supposed to use a certain category of products in common.

Concerning the sampling exercise, furthermore, the TRS Guide advises caution in dealing with 'sub-populations' such as 'goods that undergo physical examination' by referring to the use of 'stratified random sampling method' in order to avoid errors that can be caused by 'comparisons of samples from these sub-populations with those from the main population'. Trading across Borders measures the time and cost associated with procedures required by Customs and those by agencies other than Customs respectively. It could therefore be preferable to have different samples for cases that involve Customs only and those that involve both Customs and other border agencies[37]. Regarding the time required for import, which needs to be captured with some precision, the guide, being primarily aimed at 'identifying bottlenecks in the international supply chain and/or constraints affecting Customs release', indicates that time stamps, if captured for key events in the overall import process, should function as 'a mechanism to ascertain the causes of delays'[38]. The guide provides sample survey forms to record the points of time, amongst others, for the 'arrival of goods', 'registration of goods declaration' and 'release of goods' for all types of cargo and conveyance, and which should be filled out and processed by Customs officials[39].

3. Other technicalities

Open border question

A change in the Trading across Borders methodology has made a significant impact on the ranking of economies. *Doing Business* 2015 and earlier editions measured the efficiency of border procedures and regulatory practices of each economy by referencing the time and cost, as well as the number of documents, for export and import of a certain product – sea freight traveling in a dry-cargo, 20-foot, full container load, weighing ten tonnes and being valued at $20,000[40]. *Doing Business* 2016, however,

[34] WCO (2011), I/19.
[35] Creative Research Systems, https://www.surveysystem.com/sscalc.htm.
[36] WCO (2011), I/19.
[37] 'If inspections by agencies other than [C]ustoms are conducted in 20% or fewer cases, the border compliance time and cost measures take into account only clearance and inspections by [C]ustoms (the standard case).' *Doing Business* 'Methodology'-'Trading across Borders' website: http://www.doingbusiness.org/Methodology/Trading-Across-Borders.
[38] WCO (2011), I/9.
[39] Id., Appendix 2.
[40] For more information, see World Bank (2015), 'Assumption about the traded goods', 135-137.

significantly modified its Trading across Borders survey encompassing: (i) the introduction of a ‘natural trading partner’ including countries connected to the subject economy by land; (ii) the removal of ‘ocean freight’ requirements, allowing the use of different modes of transport – by land and sea primarily; and (iii) the clarification of what products should be referred to for import and export, including the mandatory use of auto parts as the import product.

As a result, the current methodology ensures that many European Union (EU) member economies hold the highest positions (collectively) in the ranking – with minimal or even negligible figures for Border/Documentary compliance indicators. This is particularly due to the exceptionally large amount of trade between and among them; most of intra-EU trade taking place within the Schengen Area does not involve any regulatory intervention (including by Customs) at border crossings. By the same token, other economies comprising a certain regional trade bloc (e.g. Customs Unions) could easily demonstrate their efficiency if their natural trading partners were in the same bloc. That is to say, the overall time and cost associated with the completion of border procedures in these economies would be significantly diminished if case studies are focused on their intra-regional trade.

Following the change in methodology, some economies have seen their rankings plunge, meanwhile those of EU member economies have surged. A few examples are given below:

- A large economy in South America which was below the 100th rank for *Doing Business* 2015 moved down by 22 for the 2016 edition.

- A large economy in Eurasia which was below the 150th rank for *Doing Business* 2015 moved down by 15 for the 2016 edition.

- An economy in North Africa which was below the 30th rank of for *Doing Business* 2015 moved down by 71 for the 2016 edition.

Variation among EU members

It should also be noted that Trading across Borders does not place all EU member economies in the same position because their natural trading partners are not necessarily within the EU. According to *Doing Business* 2017, sixteen EU member economies[41] held first place in the ranking for Trading across Borders, whereas Germany, for which China was its trading partner in export (of HS84 product[42]), ranked 38th.

[41] Austria, Belgium, Croatia, Czech Republic, Denmark, France, Hungary, Italy, Luxemburg, Netherlands, Poland, Portugal, Romania, Slovak Republic, Slovenia and Spain.
[42] Nuclear reactors, boilers, machinery and mechanical appliances; parts thereof.

Even where both a subject economy and its natural trading partner, with regard to either import or export, are within the EU, the economy's ranking may vary according to its geographical features and the pattern of cross border trade in it. For *Doing Business* 2017, Greece ranks 29th in Trading across Borders; the economy's Border compliance indicators show that its export of aluminum products (HS76) to Italy by sea takes 24 hours and costs 300 USD, whereas its import of auto parts from Germany by land takes 1 hour[43] and costs zero (0).

Geospatial settings

The revised assumptions in the Trading across Borders methodology (as mentioned earlier) have allowed case studies to employ any modes of transport (in theory), making it possible to focus on a representative trading practice in each economy. However, this has also called the comparability of economies into question.

Conveyance options for a certain trading scenario depend on the geospatial characteristics of a subject economy and its natural trading partner, as well as the physical distance between them. Whereas the time and cost for handling that takes place at the economy's port or border are included in the Trading across Borders indicators, the time and cost associated with transport *per se*, whether domestic or international, are not included – regardless of how far the economy is from its trading partner. Nevertheless, remoteness is undoubtedly a key determinant of the means of transport that affects the outcome of case studies.

On the whole, the snapshot of what the Trading across Borders indicators have shown over the past few years demonstrates that bilateral trade between neighboring economies is likely to involve less or minimal time and cost. This represents how border procedures for ground transport differ from those for marine transport. The indicators for an economy whose trading partner is far away tend to show additional time and cost that should be denoted as an additional burden encompassing transport by sea.

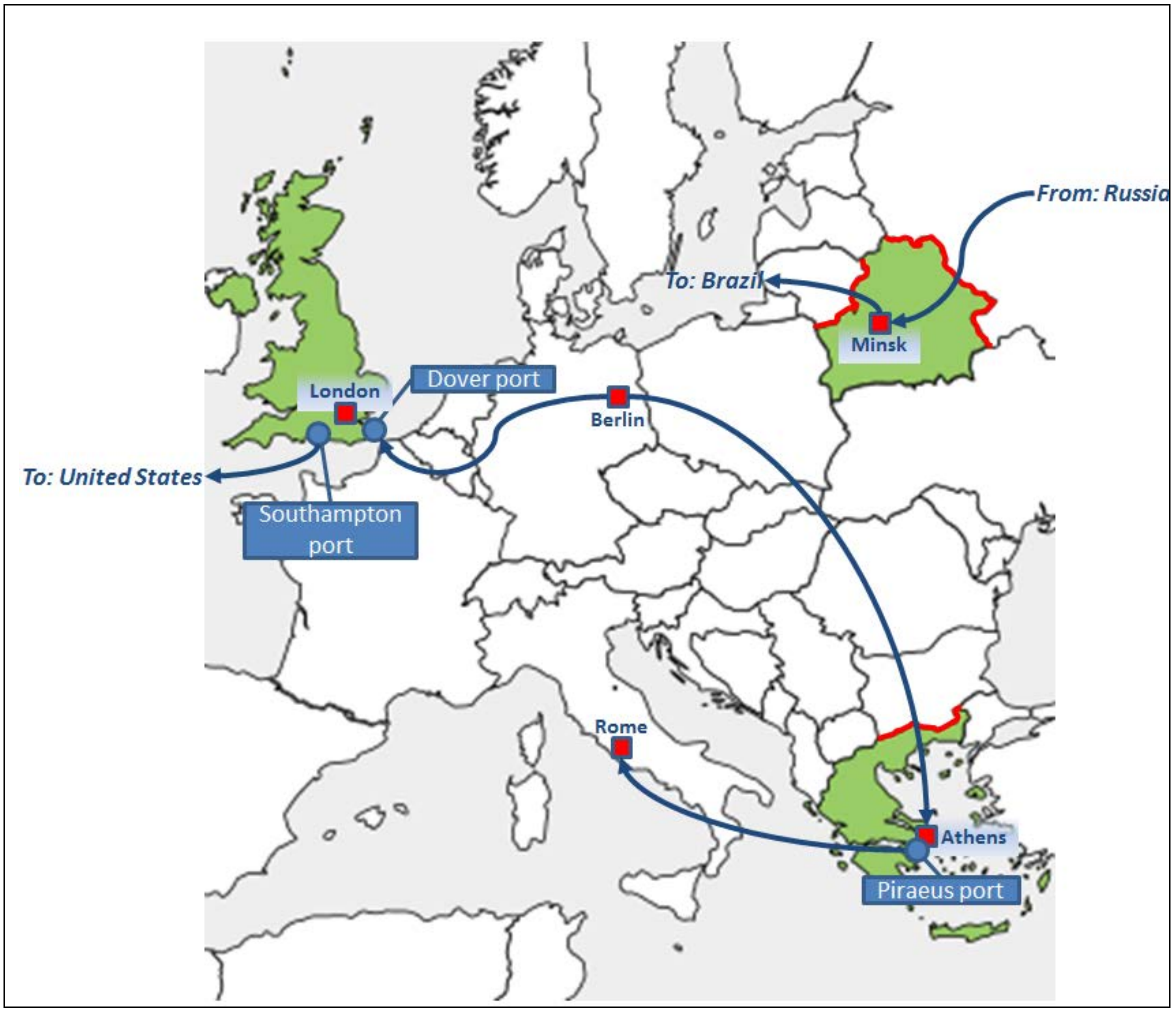
For *Doing Business* 2017, the United Kingdom (UK), Greece (mentioned earlier) and Belarus ranked 28th, 29th and 30th respectively in Trading across Borders. Attention should be given to the time (hours) and cost (USD) for Border compliance with regard to export for each of these economies: 24 and 280 for the UK; 24 and 300 for Greece; and 5 and 108 for Belarus. The UK's export of HS 76 product[44] to the United States was transported by sea (from Southampton port); as was Greece's export of HS 76 product to Italy (from Piraeus port). It is worth noting that the export case study on Belarus, referring to HS 31 product (fertilizer) as destined for Brazil, primarily concerns the procedures and logistics in its land border – the cargo-and-passenger checkpoint at the

[43] The import is free from Customs' intervention; nonetheless, Greece (Schengen EU member)'s immigration control at its border with a non-Schengen EU member (Bulgaria) can be considered as the probable cause of the addition of one hour.
[44] Aluminium and articles thereof.

Lithuanian border (Kamenny Log[45]). Given the aforementioned disadvantages associated with maritime transport that can be easily reflected in an economy's Border compliance indicators, the performance of landlocked economies like Belarus may well be considered more efficient in its regulations regarding exports than that of coastal economies whose exports can be shipped at their seaports.

In spite of the inconsistencies found in the comparison among European economies, Belarus ranked below the other two as its procedures for Documentary compliance in export cost 140 USD, four to five times as high as the corresponding figures of the other two economies. Such an increase in cost could be attributed to the fact that the shipment of goods to and from landlocked economies may often entail Customs transit procedures, involving one or more third party economies, or a multiplicity of conveyances.

[Box 5] Ports and borders for both import and export in Belarus, Greece and UK



[45] The checkpoint whose mode of transportation is 'motorway' and working hours are '24/7' has the daily capacity of '1,000' trucks for border crossing. The State Border Committee of Belarus' information portal: http://gpk.gov.by/en/maps/punkty-propuska/kamennyy-log.php.

- The direction of arrows means the flow (i.e. import and export) of shipments to and from each of the three economies for the case studies.

Produced by author based on economy's profile for *Doing Business* 2017.

Economic integration

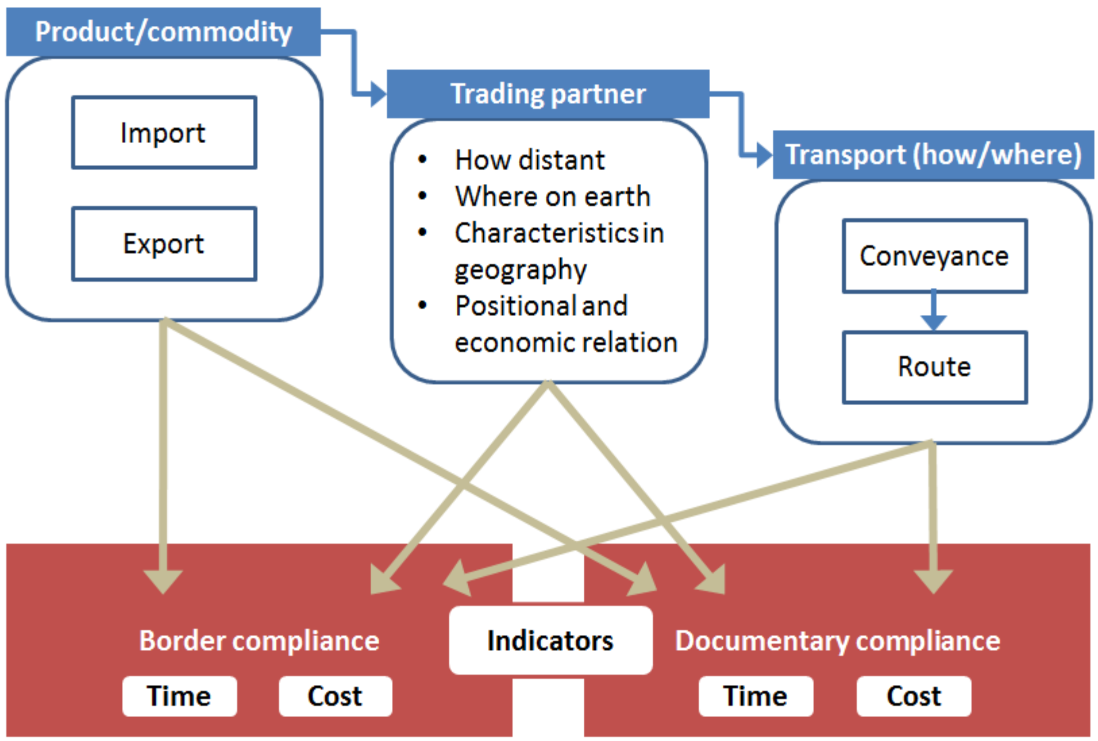
Apart from the EU, it seems unclear whether and how significantly economic integration (taking place mostly at the regional level) may affect the *Doing Business* ranking in Trading across Borders. Not all economies within a certain regional economic community demonstrate higher ranking than others. There is, however, one notable exception that shows some members of such a community being placed in the top 50. Swaziland, Lesotho and Botswana, whose positions in the Trading across Borders ranking for *Doing Business* 2018 are 32nd, 40th and 50th respectively, are members of the Southern African Customs Union (SACU) along with other two economies; namely, Namibia and South Africa. The survey results show that South Africa is the natural trading partner of Swaziland (in import and export), Lesotho (in import and export) and Botswana (in import[46]) and that the South African border is the most widely used points of entry or exit for the three economies. It therefore could be said that SACU Member States' commitment to the promotion of the facilitation of legitimate trade, both within the Union and with third parties[47], has translated into high rankings in *Doing Business*.

From a broader perspective, economies from Central America and the Caribbean tend to rank higher than those from other regions, with the exception of Europe. However, participation in Customs Unions that have been formed within the region seems not to be of direct relevance. Among the members of the Central American Integration System (*Sistema de la Integración Centroamericana* or SICA), Panama, Dominican Republic, Puerto Rico, Costa Rica, Nicaragua and Guatemala (in descending order) are placed between 54th and 79th in the Trading across Borders ranking for *Doing Business* 2018. Three of these six members, namely, Costa Rica, Guatemala, Nicaragua, form the Central American Common Market (*Mercado Común Centroamericano* or MCCA). Case study results nonetheless show that the United States has been a natural trading partner in import or export, or both, for these economies. The same is true of some Caribbean economies whose positions fall immediately beneath a group of SICA economies'. Haiti, Surinam, Dominica and St. Lucia, whose positions are between 77th and 82nd, comprise the Caribbean Community (CARICOM)[48], thereby forming the CARICOM Single Market Economy (CSME). Additionally, it is important to note that the Dominican Republic and the United States have signed a Mutual Recognition Arrangement (MRA), – bilateral understanding

[46] Regarding Botswana's export, Norway is its trading partner for *Doing Business* 2018.
[47] SACU-WCO (2012), 5.
[48] http://caricom.org/.

between two different Customs administrations to recognize the compatibility of the respective supply chain security (or Authorized Economic Operator) programs[49].

[Box 6] Trading across Borders case studies: main factors affecting the results



Produced by author.

IV. Suggested way forward

Doing Business assumes that the geography and topography of an economy (as being unrelated to its regulatory efficiency) do not affect the survey results (i.e. the scores and ranking) because the time and cost for domestic transport are not included in the Trading across Borders indicators, albeit measured through case studies and shown in the profile of each economy. By the same token, the survey does not take into consideration the cost of international transport, irrespective of the type of conveyance. As a matter of fact, however, the time and cost for Border/Documentary compliance are affected by the type of conveyance required for the shipment of goods and how burdensome an economy's documentation requirements may be. The parameters of these kinds are linked to the physical distance between, and the geospatial features of, origin and destination economies, as well as the trade relationship between them (e.g. Customs Unions).

[49] https://www.cbp.gov/border-security/ports-entry/cargo-security/c-tpat-customs-trade-partnership-against-terrorism/mutual-recognition.

As highlighted by Procomex and some Customs administrations, the figures shown by the Trading across Borders indicators for an economy vary according to the scenario adopted for the case study to be conducted on that economy. In more concrete terms, export case studies referring to the product of an economy's comparative advantage may involve additional procedures as necessary due to the nature of such a product. Furthermore, it is said that the ports and border crossing points as selected for some case studies (both in import and export), in reality, do not correspond to those which are most commonly used for the cross-border trade practice of the same kind.

It is nonetheless necessary to make sure case studies are conducted under certain conditions which should be identical and consistent across economies. The relative ease of doing business, being subject to a multifaceted assessment of countries' regulations affecting commerce, concerns a variety of costs incurred by commercial operators; Trading across Borders thus measures some of these costs for benchmarking purposes. Considering the broader scope of *Doing Busines*s, it stands to reason that equal weight should be given to all measurable parameters, including those in Trading across Borders, when calculating the distance to frontier score for an economy in every section. Even though the geospatial feature of an economy, albeit unrelated to its policies and regulations, affects the figures for the Trading across Borders indicators, it helps to inform the actual trading business environment of an economy. In order to accept this, however, case study assumptions (or methodologies) need to be elaborated in such a way as to capture the real conditions and constraints experienced by trading business operators.

As is the case with the EU, *Doing Business* has become the survey of choice for economies whose cross-border trade, in certain conditions, does not involve any border procedures (except for statistical purposes) required by either Customs or other border agencies. Since the Trading across Borders indicators are aimed at the assessment of border regulations that are active, caution might be required when looking to such an economy as having formed a trade bloc or common market with others to do away with border procedures. This concern relates to the question of comparability between a certain group of economies and others.

Based on the observation as mentioned above, some revisions can be proposed with a view to enhancing the public's confidence in the Trading across Borders survey. A few of the possible revisions can be illustrated as below.

Increase in the number of samples: Some different (plural) options in terms of mode and/or route of transport could be used for each case study, while easing the rigidity of a specific scenario-based approach that has been taken by *Doing Business* thus far. Should it be considered better to avoid commingling different samples that can be obtained through the application of different settings to a single case study, a possible way is to extract a central value (e.g. mean, median, and mode in statistics) from each set of numbers and to show it for reference purposes.

Adjustment to the scoring method: Even with the current scenario-based approach, it might be possible to realign the figures for individual indicators by mode of transport or according to the positional relationship between two trading partners (e.g. bordering, connected by land, transoceanic) and rescale each group of data separately (by identifying and applying a different 'frontier' and 'worst y' to each).

Re-examining intra-EU trade: It would be advisable to ensure that case studies concerning EU member economies include some of the border procedures which have been put in place. The current assumption regarding the selection of trading partner in import and export would be of direct relevance to this point. To cite one example, the scenario to be used for import case studies on many of EU member economies is inevitably affected by the fact that Germany has been the largest exporter of auto parts for the rest of EU member economies. Import case studies on these economies (where importation of shipments from Germany involves no border procedures) therefore may automatically lead to extremely biased results in favor of them.

Issues raised by Customs and other stakeholders over Trading across Borders are related to its intrinsic weakness: a single trading scenario being applied to the case study on an economy cannot always represent the pattern of foreign trade of the surveyed economy. It therefore would be better to prepare several different settings for that economy's import and export. This is in line with the current Trading across Borders methodology which requires the case studies of 11 sizable economies to use both the largest and the second largest business cities. Nevertheless, it would be necessary to have some objective criteria as to what economy is suited to multiple trading scenarios and to note that the data of different samples cannot be readily assembled. From a practical point of view, the methodology of case studies would have to be revised in an elaborate manner, which would make the entire survey process more complicated, in order to capture and process more representative data regarding an economy's foreign trade practice.

Changes in the survey methodology for *Doing Business* are subject to the World Bank's internal approval process; the Bank may have some interest in keeping the current methodology in view of the progress of regulatory reform that is expected to occur over the next few years and thus would be captured by the survey project. Considering such circumstances, it would be advisable to shift the focus of attention on how the survey results can be better understood by those who are responsible for reform in each economy. If Customs were better informed of how Trading across Borders' survey process moves on and how it works to deliver certain results, they would be better equipped to outline to their administrative leaders at home and stakeholders how the survey measures their efforts and regulatory practices in trade facilitation.

V. Conclusion

Trading across Borders as featured in *Doing Business* has been one of the most prominent benchmarking tools with regard to trade facilitation due to its entirely outcome-oriented characteristics and its coverage of the largest number of economies. In terms of data collection, as with the LPI – the World Bank Group's country-by-country index on trade and logistics, Trading across Borders has been supported by a number of contributors (initial data providers) engaged in the trading business environment. The LPI and Trading across Borders are remarkably different; the former is based on business operators' subjective evaluation, whereas the latter is designed to ensure some degree of objectivity by employing a fixed and uniform set of assumptions that should be applied in an equal manner to individual case studies. It seems, nonetheless, that many of the Trading across Borders contributors are ill-informed and therefore ill-equipped to conduct a case study in a suitable manner. This engenders questions about how well the survey can summarize business practices on the ground.

To borrow a term mentioned in the Global Enabling Trade Report 2016, endogeneity is another issue deriving from the scenario-based approach taken by *Doing Business*; that is, the case study results depend on some endogenous parameters – the factors affecting the determination of trading partner for a subject economy. Furthermore, the report points out that the current Trading across Borders methodology used for the case study in export only allows a small percentage of the economy's total export to be represented, even though the economy has highly-diversified exports[50].

With the involvement of more practitioners in the process of data collection and verification, as well as renewed efforts to examine as representative a sample as possible of the regulatory practice of each economy, the aforementioned concerns about Trading across Borders could be better addressed to the extent that a subject economy's Customs administration is more likely to recognize and accept the outcome of case studies. While the scenario-based approach featuring *Doing Business* needs to be maintained, some adjustment could be made to the current settings in order to take account of the diversity that might exist in a surveyed economy (e.g. export industry for the economy).

As *Doing Business* is characterized by objective measures of business regulations utilizing case studies, specific scenario-related settings, which may vary according to the situation of the economy, should not become major determinants of the case study results. The distance to frontier score, calculated in a manner that ensures consistency in comparisons across economies, is worthy of consideration as it is presumed that there is a certain homogenous sample which embodies a common practice in each economy. Customs' technical advice and input, supplied via their participation in the survey exercise, could underpin such a premise, thus helping to

[50] WEF-GATF (2016), 8.

better inform the survey results and to provide a more objective assessment of the border regulatory practice of a country from a judicious standpoint.

References

World Bank (2018), *Doing Business 2018 – Reforming to Create Jobs*, accessible at World Bank website: http://www.doingbusiness.org/reports/global-reports/doing-business-2018.

World Bank (2017), *Doing Business 2017 – Equal Opportunity for All*, accessible at World Bank website: http://www.doingbusiness.org/reports/global-reports/doing-business-2017.

World Bank (2015), *Doing Business 2018 – Going Beyond Efficiency*, accessible at World Bank website: http://www.doingbusiness.org/reports/global-reports/doing-business-2015.

USAID (2017), 'Vietnam Eases Customs Regulations to Enhance Trade', USAID website: https://www.usaid.gov/results-data/success-stories/levelling-playing-field-commerce-vietnam.

WTO (2015), *World Trade Report 2015 – Speeding up trade: benefits and challenges of implementing the WTO Trade Facilitation Agreement*, accessible at WTO website: https://www.wto.org/english/res_e/publications_e/wtr15_e.htm.

V. Saltine and D. Georgieva (2016), 'Doing Business Trading Across Borders and Logistics Performance Index: similar yet different', blog on World Bank website: https://blogs.worldbank.org/opendata/doing-business-trading-across-borders-and-logistics-performance-index-similar-yet-different, last visited 7 February, 2018.

ESCAP-OECD (2017), Handbook on Indicators for Trade Facilitation, UN website: http://www.unescap.org/resources/escap-oecd-handbook-indicators-trade-facilitation.

WEF-GATF (2016), The Global Enabling Trade Report 2016, accessible at World Economic Forum website: http://reports.weforum.org/global-enabling-trade-report-2016/?doing_wp_cron=1518100286.3224189281463623046875.

IMF (2017), *IMF Annual Report 2017*, accessible at IMF website: https://www.imf.org/external/pubs/ft/ar/2017/eng/index.htm.

D. Cleary, W. Crandall and A. Masters (2017), *Understanding Revenue Administration: Results from the Second Survey of the Revenue Administration – Fiscal Information Tool,* ISBN 9781484301913, accessible at IMF website: https://www.imf.org/en/Publications/Departmental-Papers-Policy-Papers/Issues/2017/06/30/Understanding-Revenue-Administration-Results-from-the-Second-Survey-of-the-Revenue-44896.

S. Jain (2016), 'Ease of Doing Business Initiative and Indian Customs', blog on Thompson Reuters website: https://tax.thomsonreuters.com/blog/onesource/ease-of-doing-business-initiative-and-indian-customs/.

J. E. Mein, P. C de Souza Rodrigues and A. L. Bobbio (2017), *World Bank Doing Business 2017: Replication of the Survey in Brazil*, accessible at Procomex website: http://www.procomex.org.br/relatorios_procomex/.

WCO (2011), *Guide to Measure the Time Required for the Release of Goods (TRS Guide) Version 2*, accessible at WCO website: http://www.wcoomd.org/en/topics/facilitation/instrument-and-tools/tools/time-release-study.aspx.

SACU-WCO (2012), *SACU Customs Policy*, policy document developed as part of the SACU-WCO Customs Development Programme funded by Swedish International Development Agency, currently unavailable at SACU website.