

# Measuring trade facilitation step by step: findings from a sample of 10 economies

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- In 2014 the *Doing Business* project's Trading across Borders team took on additional research aimed at providing new data to complement existing tools for benchmarking in trade facilitation. The study applied a time-and-motion approach to map out the step-by-step procedures in trade.
- The research focused on 10 economies: Bangladesh, Benin, China, the Czech Republic, Honduras, the Republic of Korea, Moldova, Qatar, St. Lucia and Zambia. Two lists of procedures were created for each economy, one for exporting and one for importing.
- These procedure lists make it possible to clearly identify what steps have to take place in exporting and importing, how much time each of them takes and how much each costs. This mapping of procedures can help policy makers determine which are particularly burdensome for traders and what could be done to address the issues.
- Among the 10 case study economies, Korea has the fewest procedures.
- Landlocked economies tend to have the most procedures because of the many additional procedures at the border. The exception is the Czech Republic, which has the second fewest procedures among the case study economies.
- A higher number of procedures to export and import can be associated with higher fees charged for customs and port-related services.
- The methodology allowed the research to take into account the simultaneity of procedures that in practice often happen in parallel. This approach therefore produced lower estimates of the total time to trade than reflected in the Trading across Borders data—22% lower for exporting and 32% lower for importing.

Trade can promote faster growth and development and higher income per capita in an economy.<sup>1</sup> At the firm level, trade allows local entrepreneurs to become part of global supply chains, access raw materials and know-how, expand their markets and, by achieving economies of scale, reduce their per-unit costs. To maintain and expand an international customer base, businesses usually strive to improve the quality and reduce the price of their products and services—and, just as important, to deliver those products and services on time. But this can sometimes be difficult. A range of factors can hamper a firm's ability to access global markets—including inadequate infrastructure, inefficient port operations, excessive documentation requirements, time-consuming customs procedures, complicated border processes, high costs along the logistics chain, and heavy-handed audits and inspections by different government agencies.

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<sup>1</sup> Wilson, Mann and Otsuki 2003.

These obstacles can be reduced through trade facilitation, defined by the United Nations Centre for Trade Facilitation and Electronic Business as “the simplification, standardization and harmonization of procedures and associated information flows required to move goods from seller to buyer and to make payment.”<sup>2</sup> Consistent with this definition, trade facilitation usually implies efficiency in procedures and administration as well as improved logistics at ports and customs.<sup>3</sup>

Multiple studies have confirmed the positive effect of trade facilitation on trade costs and volumes. Among them is a study on the member economies of the Asia-Pacific Economic Cooperation (APEC) forum. Focusing on those whose capacity falls below the average for APEC in such areas as port efficiency, customs environment, e-business and regulatory environment, the study shows that if these APEC members reduced that gap by half, trade within APEC could increase by \$254 billion—or by 21%.<sup>4</sup> Another analysis uses data for the Trade Facilitation Indicators developed by the Organisation for Economic Co-operation and Development (OECD). This shows that simplifying and harmonizing trade documents, streamlining trade procedures, making trade-related information available and using automated processes could reduce total trade costs by 14.5% for low-income countries, 15.5% for lower-middle-income countries and 13.2% for upper-middle-income countries.<sup>5</sup> Simplifying trade procedures can lead to big savings for firms. It was estimated that an International Finance Corporation (IFC) and European Union project launched in 2011 in the Western Balkans would save private companies €7.5 million a year by reducing trade logistics constraints and harmonizing border clearance procedures.<sup>6</sup>

In short, trade facilitation can have an enormous effect on trade competitiveness. The more costly and time-consuming it is to export or import, the more difficult it is for local companies—especially those in landlocked economies—to reach international markets. As formal tariff barriers have decreased over the years in most economies around the world, facilitating trade by streamlining procedures and improving infrastructure has become increasingly important.

## BENCHMARKING IN TRADE FACILITATION

When assessing policies, regulations and practices in trade facilitation, analysts can use various benchmarking tools. Among these tools are the Trading across Borders indicators from the World Bank’s *Doing Business* report, the World Bank’s Logistics Performance Index, the World Economic Forum’s Enabling Trade Index and the OECD’s Trade Facilitation Indicators. These rely

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<sup>2</sup> “Trade Facilitation Implementation Guide,” United Nations Economic Commission for Europe, 2012, <http://tfig.unece.org/details.html>.

<sup>3</sup> Wilson, Mann and Otsuki 2003.

<sup>4</sup> Wilson, Mann and Otsuki 2003.

<sup>5</sup> Moisé and Sorescu 2013.

<sup>6</sup> IFC 2011. The countries of the Western Balkans include Albania, Bosnia and Herzegovina, Croatia, Kosovo, the former Yugoslav Republic of Macedonia, Montenegro and Serbia.

on data sources ranging from perception-based surveys to fact-based questionnaires and vary in focus, country coverage and frequency of publication.

The *Doing Business* report's *Trading across Borders indicators* measure the number of documents, the time and the cost (excluding tariffs) associated with exporting and importing cargo in a 20-foot, full container load by sea transport. The indicators record the total time and cost necessary to complete four predefined stages in the export and import process: document preparation, customs clearance, inland transport, and port and terminal handling. The indicators are built from primary data collected each year from experts on trade, such as freight forwarders, customs brokers, logistics companies and shipping lines. The most recent data, published in *Doing Business 2015*, are for 2013/14 and cover 189 economies.<sup>7</sup>

The World Bank's *Logistics Performance Index* measures a country's performance along the logistics supply chain. The index covers six themes: the efficiency of customs and border clearance, the quality of trade and transport infrastructure, the ease of arranging competitively priced shipments, the competence and quality of logistics services (trucking, forwarding and customs brokerage), the ability to track and trace consignments, and the frequency with which shipments reach consignees within scheduled or expected delivery times. The data are collected biennially through a survey of freight forwarders and express carriers. The questionnaire asks both perception-based questions (calling for the respondent to rate logistics performance on a scale from 1 to 5) and quantitative questions (such as what percentage of shipments undergo physical inspection more than once). The most recent data set is for 2014 and allows comparison across 160 countries.<sup>8</sup>

The World Economic Forum's *Enabling Trade Index* measures the quality of institutions, policies and services facilitating the free flow of goods across borders. The index covers seven thematic pillars: domestic market access, foreign market access, the efficiency and transparency of border administration, the availability and quality of transport infrastructure, the availability and quality of transport services, the availability and use of information and communications technologies, and the operating environment.<sup>9</sup> These thematic pillars are built on 56 indicators, each of which is computed on a scale ranging from 1 to 7, with 7 corresponding to the best possible outcome. The data are drawn from the Global Express Association, the International Trade Centre, the United Nations Conference on Trade and Development (UNCTAD), the World Bank, the World Trade Organization and the World Economic Forum's Executive Opinion Survey. The index benchmarks the performance of 138 economies every two years.

The OECD's *Trade Facilitation Indicators* consist of 16 measures corresponding to the main policy areas under negotiation at the World Trade Organization. Data underlying 12 of these measures—on information availability, involvement of the trade community, advance rulings, appeal procedures, fees and charges, formalities (documents, automation, procedures),

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<sup>7</sup> World Bank 2014.

<sup>8</sup> Arvis and others 2014.

<sup>9</sup> Drzeniek Hanouz, Geiger and Doherty 2014.

cooperation (internal, external), consularization,<sup>10</sup> and governance and impartiality—are collected from publicly available sources, such as customs websites and official publications. Data for the 4 measures relating to transit trade—on transit fees and charges, transit formalities, transit guarantees, and transit agreements and cooperation—are collected through questionnaires completed by selected experts or from relevant focal government agencies as well as from the APEC Sub-Committee on Customs Procedures, the Global Express Association, the Institutional Profiles Database, the World Bank’s *Doing Business* indicators and Logistics Performance Index, the World Economic Forum’s *Global Competitiveness Report* and other sources. All indicators are ordinal variables with a value of 0, 1 or 2. For the indicator on the existence of a single window, for example, a country would receive a score of 0 if there is no single window, 1 if a single window is planned or being implemented or 2 if there is a single window. The initial data were collected in 2011 and the most recent data set was updated in 2013. The data cover 133 countries.<sup>11</sup>

All these benchmarking tools focus on efficiency in trade administration, logistics, ports and customs and therefore give an indication of the efficiency of the overall trading environment. But more research could be done to provide policy makers with detailed, actionable road maps—road maps that clearly identify bottlenecks in the process of exporting and importing in a country and point to ways to reduce those bottlenecks. Such research would identify what procedures take place in the process of exporting and importing, determine what hinders the overall process and assign a time and cost to each procedure.

## NEW RESEARCH TO COMPLEMENT THE EXISTING BENCHMARKING TOOLS

The *Doing Business* project took on such research in 2014. This research identified the procedures required to export and import, along with the associated time and cost, in 10 economies—Bangladesh, Benin, China, the Czech Republic, Honduras, the Republic of Korea, Moldova, Qatar, St. Lucia and Zambia. The study was aimed at complementing the existing knowledge on trade by developing and applying a methodology similar to that used for the *Doing Business* time-and-motion indicators—those measuring the number of procedures and the time and cost to start a business, deal with construction permits, get electricity or register property.

Applying this approach to exporting and importing produced a set of data previously unavailable to researchers, allowing new empirical analysis in the area of trade:

- First, by breaking down the exporting and importing process into procedures, the data enable policy makers to more clearly see where the bottlenecks are and which procedures impose heavy burdens of time or cost.

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<sup>10</sup> Consularization is defined as “the procedure of obtaining from a consul of the importing Member in the territory of the exporting Member, or in the territory of a third party, a consular invoice or a consular visa for a commercial invoice, certificate of origin, manifest, shippers’ export declaration, or any other customs documentation in connection with the importation of the good” (Moisé and Sorescu 2013, p. 48).

<sup>11</sup> Moisé and Sorescu 2013.

- Second, the data enable policy makers and researchers to compare the practices used by different economies in the same procedures and thus to identify good practices and possible improvements.
- Third, by capturing the simultaneity of processes that in practice happen at the same time, the approach allows more accurate calculation of the total time required to export and import.
- Finally, the study allows a better assessment of the trading environment in a country by capturing—both in the measurement of time and in the measurement and description of procedures—whether the country has fully implemented some of the good practices in trade facilitation (such as a single window, electronic submission of documents, an electronic payment system, risk-based inspections and joint border control).

### ***Methodology of the research***

The methodology centered on creating two lists of procedures, one for exporting and one for importing. To investigate the procedures, the study used two different questionnaires, one covering procedures relevant for coastal and island economies and the other covering procedures relevant for landlocked economies, with both assuming the use of sea transport.<sup>12</sup> Questions covered several groups of procedures: those related to arrangements and bookings; those related to preparing documents and obtaining documents from various authorities (before and after the arrival of the goods); those related to transport and, for the landlocked economies, customs processes at the border; and those related to port handling and, for the landlocked economies, customs transit control. The data were collected during travel to the country or through telephone interviews. Consistent with the traditional *Doing Business* approach, the study relied on expert questionnaires. For landlocked economies the study also questioned respondents from the country (or countries) of transit.<sup>13</sup>

To ensure comparability across economies, the study used the same set of standardized assumptions on the traded product, the business and its trading partner that underlie the Trading across Borders indicators from *Doing Business*.<sup>14</sup> In addition, just as for the Trading across Borders indicators, the study assumed that the parties to the trade transaction use a letter of credit as the default method of payment but did not include the time, cost or procedures associated with obtaining a letter of credit from a commercial bank.

Each procedure list includes procedures that need to be completed by a trader or by a representative (usually a customs broker) on the trader's behalf (for example, making a payment for various customs or port fees or preparing regular shipping documents). The study also

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<sup>12</sup> See annex 1 for the seaport and mode of transport most commonly used by traders in each economy.

<sup>13</sup> In each economy at least two experts provided estimates for both exports and imports: two in Bangladesh, four in Benin, two in China, two in the Czech Republic, six in Honduras, six in Korea, four in Moldova, two in Qatar, five in St. Lucia and four in Zambia.

<sup>14</sup> For more on these assumptions, see the data notes for the Trading across Borders indicators on the *Doing Business* website, at <http://www.doingbusiness.org/methodology/trading-across-borders>.

counted as a procedure any action by a government agency (mainly customs) that adds to the burden of time or cost during customs clearance, border control or transit control (such as conducting physical inspections or scanning the majority of containers). The study recorded a procedure if it was applicable to more than 50% of cases.

To capture time and cost and provide a description, the study by default assumed that inland transport and the handling of a container at the seaport are each a separate procedure. If a vessel was waiting extra time outside the seaport before berthing because of congestion, this was also counted as a separate procedure.

For exporting, the study counted obtaining a certificate of origin as a procedure only in cases where this was mandatory under local regulation. This allowed the study to differentiate between economies where exporters must obtain such a document because of regulatory requirements and those where exporters would do so only because of an agreement with their trading partner and local regulation therefore creates no extra burden. Whether required to by local government or not, traders often have to obtain a certificate of origin (usually from the chamber of commerce) because of an agreement with their trading partner. In economies where this was the case, the study recorded the time and cost of doing so under the procedure “preparing regular commercial shipping documents.”

The study assigned an amount of time to each procedure and also calculated a total time, taking into account the simultaneity of procedures. The time for a procedure taking less than a day was recorded in hours. The time for procedures taking place simultaneously was recorded as such in the total time. The time for a procedure that was completed electronically, required no other interaction with officials and took only minutes was recorded as 0 because it was assumed to be instant.

The study assigned cost to procedures where applicable, recorded in U.S. dollars. The cost excludes customs tariffs and duties and costs related to sea transport. The cost of arranging transport was recorded under the procedure “transport of goods.” The cost related to the handling of the container at the seaport and related paperwork (for example, fees associated with issuing a bill of lading or a delivery order) was recorded under the procedure “container is handled in the seaport.”

Data collection took place between April and October 2014.<sup>15</sup>

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<sup>15</sup> While most of the assumptions of this study are the same as those used for the Trading across Borders indicators, some of the study’s time and cost estimates do not match the total time and cost estimates for the four steps measured by the Trading across Borders indicators because of slight differences in the time of data collection as well as differences in the approach used to calculate time and to group procedures.

### ***Selection of the case study economies***

The selection of the 10 economies in the study was aimed at ensuring variation in income per capita, regional grouping, geography and ranking on the ease of trading across borders (as published in *Doing Business 2014*).<sup>16</sup> Using these criteria was important for several reasons:

- Differences in geography—in particular, between coastal or island economies and landlocked economies—helped in understanding the variation in procedures.
- Differences in region and income per capita made it possible to observe whether there are certain procedures that are used in all regions and income groups or only in particular ones.
- Differences in ranking on the ease of trading across borders made it possible to see how the number of procedures to export and import differs between economies with varying levels of efficiency in the trading process.

## **FINDINGS OF THE RESEARCH**

In every economy a standard set of procedures needs to be completed to export or import, whether required by law or simply as a matter of common practice.<sup>17</sup> For example, traders need to arrange transport of the goods. To start the customs clearance process, they need to prepare and submit a declaration to customs. And exporters need to prepare regular commercial shipping documents. Another common procedure is hiring a customs broker, because traders usually do not communicate directly with customs, whether as a matter of law or not. On average across the 10 economies, it takes 13 procedures to export or import. Korea has the fewest procedures: 7 to export and 6 to import.

### ***How do procedures vary among economies with different characteristics?***

Economies that perform well on the Trading across Borders indicators tend to have a smaller number of procedures, while those that perform poorly tend to have a larger number. But differences emerge even between economies with similar rankings on the ease of trading across borders. Take the Czech Republic (with a ranking of 58) and Qatar (61). Despite their very similar rankings, the Czech Republic has significantly fewer procedures than Qatar. Indeed, it has the second fewest procedures among the case study economies, with 8 to export or to import. Qatar has 12 to export and 11 to import (table 1).

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<sup>16</sup> World Bank 2013.

<sup>17</sup> See annexes 2 and 3 for lists of the export and import procedures in the case study economies.

Table 1. Number of export and import procedures in the case study economies						
Economy	Region <sup>a</sup>	Income group	Geography	Ranking on ease of trading across borders <sup>b</sup>	Export procedures	Import procedures
Bangladesh	SAS	Low income	Coastal	140	14	13
Benin	SSA	Low income	Coastal	121	16	14
China	EAP	Upper middle income	Coastal	98	13	13
Czech Republic	OECD	High income	Landlocked	58	8	8
Honduras	LAC	Lower middle income	Coastal	70	14	13
Korea, Rep.	OECD	High income	Coastal	3	7	6
Moldova	ECA	Lower middle income	Landlocked	152	16	20
Qatar	MENA	High income	Coastal	61	12	11
St. Lucia	LAC	Upper middle income	Island	122	12	14
Zambia	SSA	Lower middle income	Landlocked	177	23	21

a. EAP = East Asia and the Pacific; ECA = Europe and Central Asia; LAC = Latin America and the Caribbean; MENA = Middle East and North Africa; OECD = OECD high-income economies; SAS = South Asia; SSA = Sub-Saharan Africa.

b. Rankings are as reported in *Doing Business 2015* (World Bank 2014) and refer to the full *Doing Business* sample of 189 economies.

Among coastal or island economies, those in the low-income or lower-middle-income group (Bangladesh, Benin and Honduras) tend to have more procedures than the average for exporting or importing (or for both), despite having direct access to the open sea. By contrast, those in the upper-middle-income or high-income group (China, the Czech Republic, Korea and Qatar) either match the average or have fewer procedures. The one exception is upper-middle-income St. Lucia, with 14 procedures to import.

Landlocked economies, whose traders face additional border procedures, tend to have the most procedures: Zambia has 23 to export and 21 to import, and Moldova 16 to export and 20 to import. The Czech Republic is an exception. Local traders benefit from its membership in the EU Customs Union, which enables goods to be moved across borders on the way to or from the seaport without any border procedures.

### ***How do electronic systems affect procedures, time and cost in customs?***

Customs clearance for exports or imports commonly requires 3–4 procedures. While these vary across economies, they usually include at least some of the following procedures: preparing an export declaration and submitting it electronically to customs, submitting the export declaration and supporting documents in hard copy to customs, making a payment of administrative customs fees before the declaration can be released, weighing and scanning a container in the designated area and physically inspecting a sample from the container. In Honduras, for example, customs clearance takes 3 procedures for exports and 5 for imports. The reason for the 2 additional procedures for imports is that most imported containers undergo physical inspection

and a payment needs to be made for import tariffs and duties. Comparing lists of such procedures across economies can suggest ways to simplify the customs clearance process and reduce the time it takes.

Research shows that not only does the number of procedures matter but so do the substance of each procedure and the time and cost associated with it. In Zambia, for example, completing customs clearance in Lusaka requires 4 procedures for both exports and imports. But while the procedures for exports can be completed in 1 day and 5 hours, those for imports take 2 days and 1 hour (table 2).<sup>18</sup> What accounts for the time difference? While most imports undergo physical inspections, for exports the container is simply weighed.

<b>Exports</b>		<b>Imports</b>	
<i>Procedure</i>	<i>Time</i>	<i>Procedure</i>	<i>Time</i>
Prepare and submit export declaration electronically to Zambian customs	1 h.	Prepare and submit import declaration electronically to Zambian customs	1 h.
Submit export declaration and supporting documents in hard copy to customs (Lusaka)	1 day	Submit import declaration in hard copy to customs (Lusaka)	1 day
Make a payment of administrative fees	2 h.	Make a payment of administrative fees and tariffs	2 h.
Weighing of container in the designated area (Lusaka)	4 h.	Physical inspection of all items in container (Lusaka)	1 day

Systems allowing electronic submission of documents to customs—the declaration, supporting documents or both—can speed the customs clearance process. All 10 case study economies have some such system (table 3). Yet the number of procedures required in submitting these documents nevertheless varies, along with the associated time and cost. While the systems allow traders to lodge customs declarations for exports and imports electronically, in most cases the traders still must present a hard copy of the declaration and supporting documents—an additional procedure. This undermines the potential gains from implementing an electronic system.

Moldova provides an illustration. This country was among the first in the world to implement Asycuda (Automated System for Customs Data) World after the system became available in 2005. This system allows customs brokers in Chişinău to prepare and submit the declaration electronically. Yet they still must submit all supporting documents in hard copy before the declaration can be released. This requires additional interaction with customs—and extra time for the customs broker. Getting export and import declarations cleared also requires the payment of administrative fees that vary with the value of the goods. Because the system does not allow secure electronic payments, traders usually go to a bank to make the payment 24 hours before submitting the declaration.

<sup>18</sup> The total time for customs clearance reported here accounts for the simultaneity of certain procedures and therefore differs from the total for the times shown in table 2.

In Korea and the Czech Republic, by contrast, traders get the maximum benefits of electronic systems for customs: the customs clearance process can be completed entirely on the basis of electronic documents for both exports and imports.

Table 3. Electronic systems for customs implemented in the case study economies	
Economy	System
Bangladesh	Asycuda World
Benin	Asycuda ++ (known locally by its French acronym Sydonia ++)
China	ECustoms (H2000); EPort
Czech Republic	eVývoz (exports); eImports (imports)
Honduras	Sistema de Rentas Aduaneras Hondureñas (SARAH)
Korea, Rep.	Uni-Pass
Moldova	Asycuda World
Qatar	Qatar Clearance Single Window (QCSW)
St. Lucia	Asycuda World
Zambia	Asycuda World

Indeed, in Korea the customs clearance process takes only one procedure, with no associated cost, for both exports and imports. Moreover, for imports the process takes only 3 hours, while for exports the time is recorded as 0 (with the exports released instantly in most cases). So it is not surprising that Korea is one of the top-ranking economies globally on the ease of trading across borders.<sup>19</sup> And that's not all: in 2011 Korea became the ninth country to join the "One-Trillion-Dollar Trade Club" and the seventh largest exporter by trade volume.<sup>20</sup>

All this would not have been possible without Korea's efforts to facilitate trade by simplifying customs procedures (along with developing port and road infrastructure and maintaining low costs for trade procedures). Korea has developed various kinds of electronic data interchange (EDI) systems since the mid-1990s. In 2005 the customs authority introduced an internet-based system, Uni-Pass, that is still in use. This system is also an electronic single window, connecting more than 38 participating government agencies as well as banks, traders and carriers. Users can access services at any time and from any place, and there is no charge for using the system.

With Uni-Pass, customs brokers can prepare and lodge an electronic export declaration from any location where internet access is available, and in 99% of cases the declaration will be released instantly. In most cases no documents are required in hard copy, and the export container does not have to be put into a bonded area or dry port for checks. Instead, exporters place their own seal on the container, so that customs clearance is an entirely electronic process. Indeed, traders and their representatives hardly ever have any physical interaction with the authorities.

<sup>19</sup> Korea is ranked number 3 on the ease of trading across borders in *Doing Business 2015* (World Bank 2014).

<sup>20</sup> Korea Customs Service 2014.

For importing, the single procedure during customs clearance is to prepare and submit an import declaration and pay the tariffs or duties and taxes. In most cases the release is issued on the basis of electronic documents, with no requirement to submit hard copies or to have the imports undergo scanning or physical inspection. Thanks to Uni-Pass, traders use a single web portal both to lodge the declaration and supporting documents and to pay the import tariffs—and because all relevant agencies are linked through the system, there is no need to submit a payment confirmation to any authority.

Traders' ability to complete the customs clearance process instantly for exports and in a matter of hours for imports means that they can focus their operational resources on other business needs. According to estimates by the Korea Customs Service, the introduction of the Uni-Pass system led to private sector savings of \$2.4 billion a year in logistics costs, \$6 million a year in business costs and \$4.1 million a year in customs brokerage costs. It also allowed a reduction in customs staff of 130 employees.<sup>21</sup>

Beyond the gains in efficiency, easier customs procedures may be associated with lower fees charged to small and medium-size businesses for customs and port-related services. In Korea, despite its being an OECD high-income economy, customs broker fees are as low as about \$20 when exporting a standardized container of goods and \$30 when importing the equivalent. In lower-middle-income Zambia, which has the highest number of customs procedures as measured by the study, traders pay eight times as much for customs broker services (about \$165 for exporting and \$245 for importing). The difference is even more striking when the costs are calculated as a percentage of gross national income (GNI) per capita: in Korea customs broker fees amount to about 0.1% of GNI per capita for both exporting and importing, while in Zambia they are 9% of GNI per capita for exporting and 13.5% for importing.<sup>22</sup>

### ***How do burdensome procedures affect time and cost at the port?***

The cost for traders is also higher where port procedures are burdensome. Traders pay more for port operation services where communication with port authorities involves extra procedures, communication is not electronic or port authorities are not properly linked through a single window to the customs authority's EDI systems. In Moldova, for example, traders need to hire a port forwarder to complete port procedures at the seaport in Odessa, Ukraine (mainly to submit hard-copy documents and get them stamped), resulting in an additional cost of \$130 for exporting and \$250 for importing. In St. Lucia communication with both customs and port authorities must be handled by a customs broker, and procedures relating to customs clearance and port-related operations require multiple interactions with the authorities (table 4). The total cost of customs broker services is the highest among the case study economies (\$200 for both exporting and importing).

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<sup>21</sup> Korea Customs Service 2014.

<sup>22</sup> Based on 2013 GNI per capita calculated using the World Bank Atlas method (current U.S. dollars), recorded as \$25,920 for Korea and \$1,810 for Zambia (World Bank Data Catalog, <http://data.worldbank.org/indicator/NY.GNP.PCAP.CD>).

Table 4. Customs broker's interactions with customs and port authorities in St. Lucia when exporting or importing	
Exporting	Importing
Customs broker submits notice to pack for home consumption or export to customs	Customs broker prepares and submits import declaration (SAD) electronically to customs
Customs broker prepares and submits export declaration and supporting documents electronically to customs	Customs broker prepares and submits Application for Overtime Services and Container Examination Request
Customs officer visits trader's warehouse to look at goods that will be exported and witness packing of goods into container	Customs broker makes a payment of administrative customs fees, tariffs and taxes
Customs broker submits export declaration together with supporting documents in hard copy to customs	Customs broker submits a payment slip and Form A to customs
Customs broker presents cargo release note (exit certificate) to port authorities	Customs broker obtains a gate pass from port authorities

In Korea, by contrast, traders do not have to bear this extra cost. Port authorities receive all information electronically and in real time and do not require hardcopy documents or stamps. This means that port procedures can be completed without the presence of the port forwarder or customs broker at the seaport. As a result, the only fees associated with port and customs-related services are those already noted (\$20 for exporting and \$30 for importing).

A single window for trade can facilitate communication with port authorities, though its effectiveness depends on its being fully implemented. Take the example of Benin, which has been actively improving its trading environment based on the Trading across Borders research in recent years. In November 2011 the government launched an electronic single window operated by a company created for that purpose—Société d'Exploitation du Guichet Unique du Bénin (SEGUB)—and using the Asycuda ++ system. An electronic payment system also went into operation, enabling traders to pay customs and port fees simultaneously and through the same portal of the single-window system. But even though SEGUB receives electronic confirmation of the payments, traders must still present the document certifying payment (Bordereau de Frais Unique) to port authorities in hard copy—an extra procedure. Better connecting and coordinating port and customs operations could maximize the benefits of the single window for traders.

Port infrastructure is another source of additional procedures and delays, and improving it is no less important than improving regulations and administration. Among the case study economies, only Korea has just one port-related procedure: handling a container in the seaport. The facilities at the port of Busan, the world's fifth busiest container seaport, allow immediate unloading of vessels. So if a container arrives on a vessel in the morning, it can be picked up from the port by the end of the day. Importers in the other nine case study economies have a longer wait, because vessels must usually wait 1–2 days outside the seaport before unloading. Those in Zambia face the longest delay, at 4 days. This is specifically because of the long wait for vessels outside the port of Durban, South Africa, one of the largest seaports in Africa.

### *What challenges do landlocked economies face in trade procedures?*

With the exception of the Czech Republic, the landlocked economies in the case study have almost twice as many procedures to export or import on average as the coastal economies do. This highlights the importance of simplifying customs procedures at the border, such as through joint customs control. It also underscores the benefits of customs unions for landlocked economies. For traders in the landlocked Czech Republic the time required to transport cargo between Prague and the seaport of entry or exit (Hamburg, Germany) can be attributed entirely to geographic distance—because there are simply no border controls and no checkpoints.<sup>23</sup> As a result, the Czech Republic has only one transport-related procedure (transporting the container between the largest business city and the seaport) and, despite being landlocked, has the second fewest procedures among the case study economies.

Other landlocked economies could greatly reduce the transport time not only by improving poor road infrastructure but also by addressing time delays caused by burdensome customs procedures at the border and by queues, police checkpoints and numerous weigh stations. Consider what Zambian traders face in exporting or importing. While they could choose to use either the port of Dar es Salaam in Tanzania or the port of Durban in South Africa, they prefer to use Durban because they find the road infrastructure better and the route more secure. Even so, Zambian containers on this route go through 11 procedures for export and 10 for import. The main reason is the lack of joint border control or exchange of customs information at both the Zambia-Zimbabwe border and the Zimbabwe–South Africa border. This results in duplication of procedures at each border, waiting time to complete each of the procedures and long queues of trucks.

At the Zambia-Zimbabwe border the transit declaration and supporting documents for exports have to be submitted first electronically and then in hard copy to authorities of both countries. Zambian authorities scan more than 50% of containers, and Zimbabwean customs officers also check the seal on each container and only then allow the cargo to pass to the next border. Several procedures are repeated at the Zimbabwe–South Africa border post. The transit declaration and supporting documents are submitted to Zimbabwean authorities in hard copy, and a customs officer checks the seal. Once a container is passed to the South African post, the transit declaration and supporting documents are submitted both electronically and in hard copy and a customs officer usually conducts a physical inspection of the container.

One reason for the duplication of procedures and lack of information sharing is that South Africa and Zimbabwe use different electronic systems—South Africa uses the South African Revenue Service (SARS) EDI system and Zimbabwe the Asycuda World system, which do not exchange information. Moreover, even though Zambia recently upgraded from Asycuda ++ to Asycuda World, the same system being used in neighboring Zimbabwe, compatibility issues persist,

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<sup>23</sup> See annex 1 for the largest business city in each case study economy, along with the seaport and mode of transport most commonly used by traders.

limiting information sharing and adding to the duplication of procedures at the inland border post. Of the total transport time of 14 days for Zambian exports or imports, customs procedures and queues at the Zambia-Zimbabwe border contribute about 2 days and those at the Zimbabwe-South Africa border about 3 days.

Customs procedures are not the only source of delays. Truckers also must contend with 25 checkpoints or weigh stations operating on the Zambia-South Africa route (1 in Zambia, 4 in South Africa and 20 in Zimbabwe). More than 15 of them are on the approximately 580-kilometer route between Harare and Beit Bridge, Zimbabwe. The majority of trucks are commonly asked to stop at these checkpoints and weigh stations, adding considerably to the transport time.

All these complexities as well as the long distance between Lusaka and Durban (a container travels about 2,160 kilometers on this route) add to the cost of transporting a container—a cost that can be as high as \$4,500 for exports and \$6,000 for imports, 2.5–3.3 times GNI per capita in Zambia.<sup>24</sup>

But transport delays are not unique to landlocked economies. Mapping procedures and identifying why a particular procedure takes a particular amount of time helped to pinpoint transport issues in other economies as well. In Benin, for example, transporting goods between the seaport of Cotonou and the warehouse district in that city takes 24 hours on average, despite a distance of only 3 kilometers. The reason is the major congestion that trucks encounter when entering or exiting the port.

## CONCLUSION

Economies that perform well on the Trading across Borders indicators tend to have a smaller number of procedures to export and import, while those that perform poorly tend to have a larger number. Korea has the fewest among the 10 case study economies. Its example demonstrates the importance of trade facilitation measures that target the entire export and import process—from warehouse to seaport—in enabling an economy to reach its full potential in trade.

Landlocked economies (such as Zambia and Moldova) tend to have the most procedures because of the additional procedures at the border. But the Czech Republic is an exception. It has the second fewest procedures among the case study economies, fully benefiting from the efficiencies in transport and border control offered by its membership in the EU Customs Union.

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<sup>24</sup> Based on 2013 GNI per capita calculated using the World Bank Atlas method (current U.S. dollars), recorded as \$1,810 for Zambia (World Bank Data Catalog, <http://data.worldbank.org/indicator/NY.GNP.PCAP.CD>).

By measuring procedures, the research highlights the importance to landlocked economies of simplifying customs procedures at the border by establishing joint border control—or eliminating them altogether by joining customs unions.

Direct access to the sea is no guarantee of efficiency in procedures: Bangladesh, Benin, Honduras and St. Lucia, for example, all have more procedures than the average at least in either exporting or importing process among the case study economies.

By assigning cost to procedures, the research also brings attention to the higher service charges in several economies (such as Moldova, St. Lucia and Zambia). These stem from inefficient customs and port procedures, lack of connection between the electronic systems used by port and customs authorities, and requirements to submit hard copies of documents in addition to lodging them electronically.

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## Annex 1. Largest business city and most commonly used seaport and transport mode in the case study economies

Economy	Largest business city	Seaport	Mode of transport
Bangladesh	Dhaka	Chittagong	Truck
Benin	Cotonou	Cotonou	Truck
China	Shanghai	Shanghai (Yangshan Terminal)	Truck
Czech Republic	Prague	Hamburg, Germany	Train
Honduras	Tegucigalpa	Puerto Cortes	Truck
Korea, Rep.	Seoul	Busan (Newport Shinhan terminal)	Truck
Moldova	Chişinău	Odessa, Ukraine	Truck
Qatar	Doha	Doha	Truck
St. Lucia	Castries	Castries	Truck
Zambia	Lusaka	Durban, South Africa	Truck

## Annex 2. Export procedures in the case study economies

Procedure	Bangladesh	Benin	China	Czech Republic	Honduras	Korea, Rep.	Moldova	Qatar	St. Lucia	Zambia
Obtain a certificate of origin	√	√			√		√	√	√	√
Obtain a technical certificate from a relevant authority	√	√			√					
Obtain a certificate from the tax authorities		√								
Obtain a foreign exchange authorization		√	√		√					
Exporter prepares regular commercial shipping documents	√	√	√	√	√	√	√	√	√	√
Submit relevant shipment documents to the shipping line	√	√	√	√	√	√	√	√	√	√
Exporter/representative submits notice to pack for home consumption/export to customs (in largest business city)									√	
Hire a customs broker	√	√	√	√	√	√	√	√	√	√
Hire a port forwarder			√				√			
Arrange transport	√	√	√	√	√	√	√	√	√	√
Inland transport between warehouse and the seaport	√	√	√	√	√	√	√	√	√	√
Prepare export declaration and submit electronically to customs (in largest business city)	√	√	√	√	√	√	√	√	√	√

Procedure	Bangladesh	Benin	China	Czech Republic	Honduras	Korea, Rep.	Moldova	Qatar	St. Lucia	Zambia
Customs officer visits trader's warehouse to look at goods that will be exported and witness packing of goods into container (in largest business city)									√	
Make a payment of administrative customs fees before declaration can be released (in largest business city)		√					√			√
Submit export declaration and supporting documents in hard copy to customs (in largest business city)	√	√	√		√		√	√	√	√
Physical inspection of container by customs (in largest business city)	√	√	√					√		
Container is weighed and/or scanned in the designated area (in largest business city)	√	√	√		√			√		√
Submit relevant documents in hard copy to customs (at 1st border and 1st border post)							√			√
Container is weighed and/or scanned in the designated area (at 1st border and 1st border post)							√			√
Submit relevant documents electronically to customs (at 1st border and 2nd border post)										√
Submit relevant documents in hard copy to customs (at 1st border and 2nd border post)							√			√
Customs officer checks the seal of the container at border post (at 1st border and 2nd border post)										√
Submit relevant documents in hard copy to customs (at 2nd border and 1st border post)										√
Customs officer checks the seal of the container at border post (at 2nd border and 1st border post)										√
Submit relevant documents to customs electronically (at 2nd border and 2nd border post)										√
Submit transit declaration to customs in hard copy at border post (at 2nd border										√

Procedure	Bangladesh	Benin	China	Czech Republic	Honduras	Korea, Rep.	Moldova	Qatar	St. Lucia	Zambia
and 2nd border post)										
Customs officer physically inspects the container (at 2nd border and 2nd border post)										√
Container is handled at the seaport	√	√	√	√	√	√	√	√	√	√
Trader pays port and terminal handling and other relevant fees	√				√		√			
Transit declaration/supporting documents submitted electronically (landlocked economies)				√						
Transit declaration/supporting documents submitted in hard copy (landlocked economies)							√			√
Container is weighed/ scanned at the seaport										√
Supporting documents are submitted to port authorities (coastal/island economies)	√	√	√		√			√		
Trader/representative presents cargo release note (exit certificate) to port authorities									√	

*Note:* The procedures are not necessarily listed in the order in which they occur in any of the case study economies. For information on the order of procedures in each economy, see the Excel file at

<http://www.doingbusiness.org/-/media/GIAWB/Doing%20Business/Documents/Special-Reports/DB15-Procedures-in-Trade.xlsx>

### Annex 3. Import procedures in the case study economies

Procedure	Bangladesh	Benin	China	Czech Republic	Honduras	Korea, Rep.	Moldova	Qatar	St. Lucia	Zambia
Hire a customs broker	√	√	√	√	√	√	√	√	√	√
Arrange transport	√	√	√	√	√	√	√	√	√	√
Hire a port forwarder			√				√			
Obtain foreign exchange authorization		√	√							
Obtain pre-shipment clean inspection report before arrival of goods	√									
Obtain "Intention d'importation"		√								
Vessel waits outside the seaport before entering	√	√	√	√	√		√	√	√	√
Container is handled at the seaport	√	√	√	√	√	√	√	√	√	√
Trader/representative pays port and terminal handling and other fees	√				√	√	√		√	
Supporting documents are submitted electronically to port authorities										√
Supporting documents are submitted in hard copy to port authorities	√	√	√		√		√	√	√	√
Container is weighed/scanned in the designated area of the seaport							√			√
A sample from container is inspected							√			
Customs in the seaport places a GPS seal on the container							√			
Transit declaration number is issued electronically to the transporter of goods				√						
Submit relevant documents in hard copy to customs (at 1st border and 1st border post)							√			√
Customs officer checks the seal of the container (at 1st border and 1st border post)							√			
Container is opened and sample is inspected by various authorities (at 1st border and 1st border post)							√			
Customs officer conducts physical inspection of the container (at 1st border and 1st border post)										√
Submit relevant documents electronically to customs (at 1st border and 2nd border post)										√
Submit relevant documents in hard copy to customs (at 1st							√			√

Procedure	Bangladesh	Benin	China	Czech Republic	Honduras	Korea, Rep.	Moldova	Qatar	St. Lucia	Zambia
border and 2nd border post)										
Container is weighed/scanned in the designated area (at 1st border and 2nd border post)							√			
Customs officer checks the seal of the container (at 1st border and 2nd border post)							√			√
Submit transit declaration/supporting documents in hard copy to customs (at 2nd border and 1st border post)										√
Customs officer checks the seal of the container (at 2nd border and 1st border post)										√
Submit relevant documents in hard copy to customs (at 2nd border and 2nd border post)										√
Container is weighed and/or scanned in the designated area (at 2nd border and 2nd border post)										√
Validate, certify or legalize a document									√	
Obtain a cargo tracking note		√								
Prepare Application for Overtime Services and Container Examination Request									√	
Prepare and submit import declaration electronically to customs	√	√	√	√	√	√	√	√	√	√
Submit import declaration (and/or supporting documents) in hard copy to customs and wait for release	√	√	√		√		√	√	√	√
Make a payment of administrative customs fees and/or tariffs/duties		√	√	√	√		√		√	√
Container is weighed and/or scanned in designated area	√	√	√		√			√		
Physical inspection of all items/sample in container by customs	√	√	√		√			√		√
Obtain exit/gate pass from port authorities	√				√			√	√	
Customs officer visits trader's warehouse to open the container and observe unpacking									√	
Inland transport	√	√	√	√	√	√	√	√	√	√

*Note:* The procedures are not necessarily listed in the order in which they occur in any of the case study economies. For information on the order of procedures in each economy, see the Excel file at

<http://www.doingbusiness.org/-/media/GIAWB/Doing%20Business/Documents/Special-Reports/DB15-Procedures-in-Trade.xlsx>

