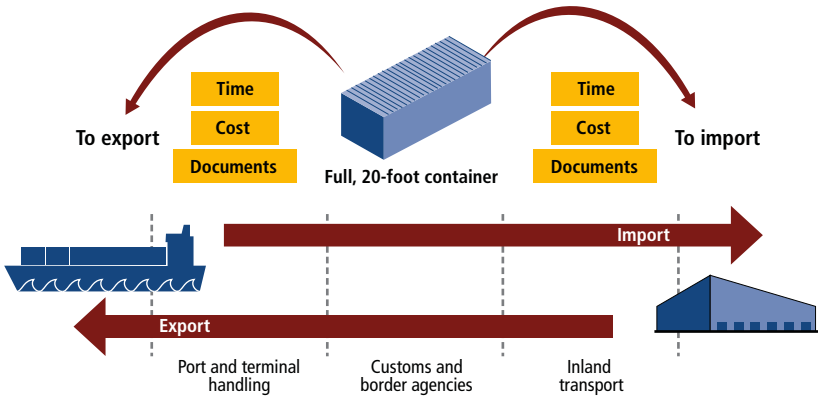
Trading across borders

The cost of living is high in Juba, the capital of the world's youngest nation, the Republic of South Sudan.[1] Decades of conflict have wiped out basic infrastructure and destroyed what production capacity it once had. So most goods—including food, basic inputs and construction materials—must be imported. That can be costly and slow. An entrepreneur in Juba would have to spend $9,429 to import a standardized container of cargo through the port of Mombasa—and wait for up to 60 days from the time the goods arrive in Mombasa until they reach Juba, as measured by *Doing Business*.

Why the high cost and long delays? The reasons include poor infrastructure, multiple checkpoints and the cumbersome administrative process of trading.[2] The cost of trading in Juba adds to the already high general prices for goods in the city. Juba may be an extreme case, but the many developing economies around the world that depend on imports for basic needs also suffer from high import costs.

Doing Business measures the time and cost (excluding tariffs) associated with exporting and importing by ocean transport, and the number of documents necessary to complete the transaction (figure 1).[3] The indicators cover documentation requirements and procedures at customs and other regulatory agencies as well as at the port. They also cover logistical aspects, including the time and cost of inland transport between the largest business city and the main port used by traders. These are key dimensions of the ease of trading—the more time-consuming and costly it is to export or import, the more difficult it is for local companies to be competitive and to reach international markets (table 1).

FIGURE 1 How much time, how many documents and what cost to export and import by ocean transport?



Trading across borders, as measured by *Doing Business*, typically involves the following steps: After signing a contractual agreement with the overseas importer, the exporting company first prepares and obtains all required documents and submits them to the relevant authorities. It makes arrangements with a commercial bank for the issuance of a letter of credit. The exporter then arranges for the goods to be packed into a container and transported from the warehouse to the port. Inland transport is done by truck, train or barge boat or by a combination of these. The goods need to be cleared by customs and by authorities such as health ministries. Export companies often hire agents such as customs brokers to complete the necessary paperwork and other formalities on their behalf. The use of customs brokers is included in the cost as measured by *Doing Business*. Once the cargo is at the port, port fees and handling costs are paid, and the cargo is moved to the appropriate area until it can be loaded onto the vessel ready for shipment.

The importing company also prepares and obtains all required documents and submits them to the relevant authorities. It makes arrangements with a commercial bank for an import letter of credit. Once the vessel arrives at the port of entry, the cargo is offloaded to the port terminal, the necessary documents are submitted to and cleared by port authorities, and all the handling fees are paid.

TABLE 1 Where is trading across borders easy—and where not?

Easiest	RANK	Most difficult	RANK
Singapore	1	Burundi	174
Hong Kong SAR, China	2	Burkina Faso	175
Estonia	3	Kazakhstan	176
Korea, Rep.	4	Tajikistan	177
United Arab Emirates	5	Chad	178
Finland	6	Afghanistan	179
Denmark	7	Iraq	180
Sweden	8	Congo, Rep.	181
Norway	9	Central African Republic	182
Israel	10	Uzbekistan	183

Note: Rankings are the average of the economy's rankings on the documents, time and cost required to export and import. See the data notes for details.

Source: Doing Business database.

If customs and other clearance procedures at the port are lengthy, the cargo might need to be moved to a separate container yard, leading to storage fees for the importer. Customs clearance and other checks by authorities can be conducted at the port or at an inland port near the city where the import company is located (for more details on what *Doing Business* measures, see the data notes).[4]

WHY DOES FACILITATING TRADE MATTER?

The benefits of trading are well documented. Limited access to international markets can prevent the growth of businesses and economies of scale. Local markets are often small, particularly in developing economies, and trade provides potential for greater output at lower cost. Trade also allows developing economies to become part of global supply chains. Having access to imported raw materials and other inputs is often crucial for businesses, and delays or shortages can affect production. Trade can also lead to favorable externalities such as the transfer of know-how.[5]

But a firm's ability to trade overseas can be hampered by a range of factors—inadequate infrastructure, inefficient port operations, excessive documentation requirements, burdensome and time-consuming customs procedures, heavy-handed inspections and audits by different government agencies. The World Bank's Logistics Performance Index shows that a trade supply chain is only as strong as its weakest link: poor performance in just 1 or 2 areas can have serious repercussions for overall competitiveness.[6] By removing unnecessary obstacles, governments can contribute to an environment that encourages entrepreneurs to look beyond their own borders for business opportunities. A study focusing on Asia-Pacific Economic Cooperation (APEC) economies estimates that cutting the days needed to clear exports by half could enable a small to medium-size enterprise to increase its share of exports in total sales from 1.6% to 4.5%.[7]

International trade plays an important part in the development of economies.[8] Facilitating trade is therefore a natural concern for policy makers. Researchers find that the complexity or ease of customs and administrative procedures has an impact on trade flows. A study in Sub-Saharan Africa estimates that reducing exporting costs by 10% through improvements in the efficiency of the trade process increases exports by 4.7%.[9] Globally, improving port efficiency, the customs environment, the regulatory environment and the service sector could increase trade in manufacturing by up to $377 billion a year in all regions.[10]

Improving infrastructure naturally plays an important part in enhancing trade, but so do policies and regulations that promote efficient border crossing and the emergence of reliable logistics services, particularly for landlocked economies.[11] Another study in Sub-Saharan Africa shows that a 1-day reduction in inland travel times leads to a 7% increase in exports. Put another way, a 1-day reduction in inland travel times is equivalent to a 1.5 percentage point reduction in all importing-country tariffs.[12] Research also shows that other areas of the regulatory environment for business, such as the sharing of credit information and efficient debt enforcement through the courts, play an important complementary part in boosting trade.[13]

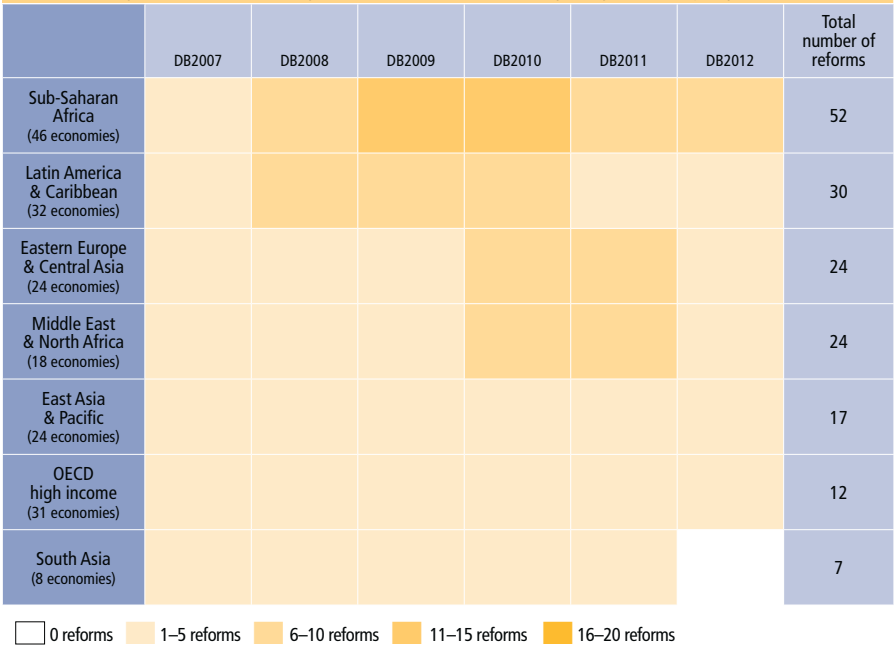
Governments can also benefit directly from trade facilitation, for example, by supporting easier ways to enforce tariff and duty payments and by making informal "facilitation payments" to certain customs officers more difficult. Ghana saw customs revenue grow by 49% in the first 18 months after implementing GCNet, its electronic data interchange system for customs procedures, according to a case study.[14] In Uganda reforms to improve customs administration and reduce corruption helped increase customs revenue by 24% between 2007 and 2008.[15]

WHO REFORMED IN TRADING ACROSS BORDERS—AND WHAT HAS WORKED?

In the past 6 years *Doing Business* recorded 166 trade facilitation reforms in 106 economies (figure 2). Many introduced electronic data interchange systems for submitting and processing documents. Some opted for regulatory reforms, streamlining the number of documents or controls required during the trading process. As a result of these and other measures, trading across borders as measured by *Doing Business* has become faster and easier over the years (figure 3).

FIGURE 2 Sub-Saharan Africa continues to lead in trade reforms

Number of *Doing Business* reforms making it easier to trade across borders by *Doing Business* report year



Note: An economy can be considered to have only 1 *Doing Business* reform per topic and year. The data sample for DB2007 (2006) includes 178 economies. The sample for DB2012 (2011) also includes The Bahamas, Bahrain, Cyprus, Kosovo and Qatar, for a total of 183 economies.

Source: Doing Business database.

From the conclusion of a contractual agreement between the exporter and importer to the moment goods are shipped or received (excluding maritime transport) takes 22.5 days on average for exporting and 25.1 for importing. In 2006 it took 26.4 days on average to export and 30.9 to import.

In 2010/11, 18 economies made it easier to trade across borders, with introducing or improving electronic document submission the most common feature of trade facilitation reforms (table 2).

The economies with the most efficient trading environments share common features. They allow traders to exchange information with customs and other control agencies electronically. And they use risk-based assessments to limit physical inspections to only a small percentage of shipments, reducing customs clearance times.

Adopting electronic data interchange systems

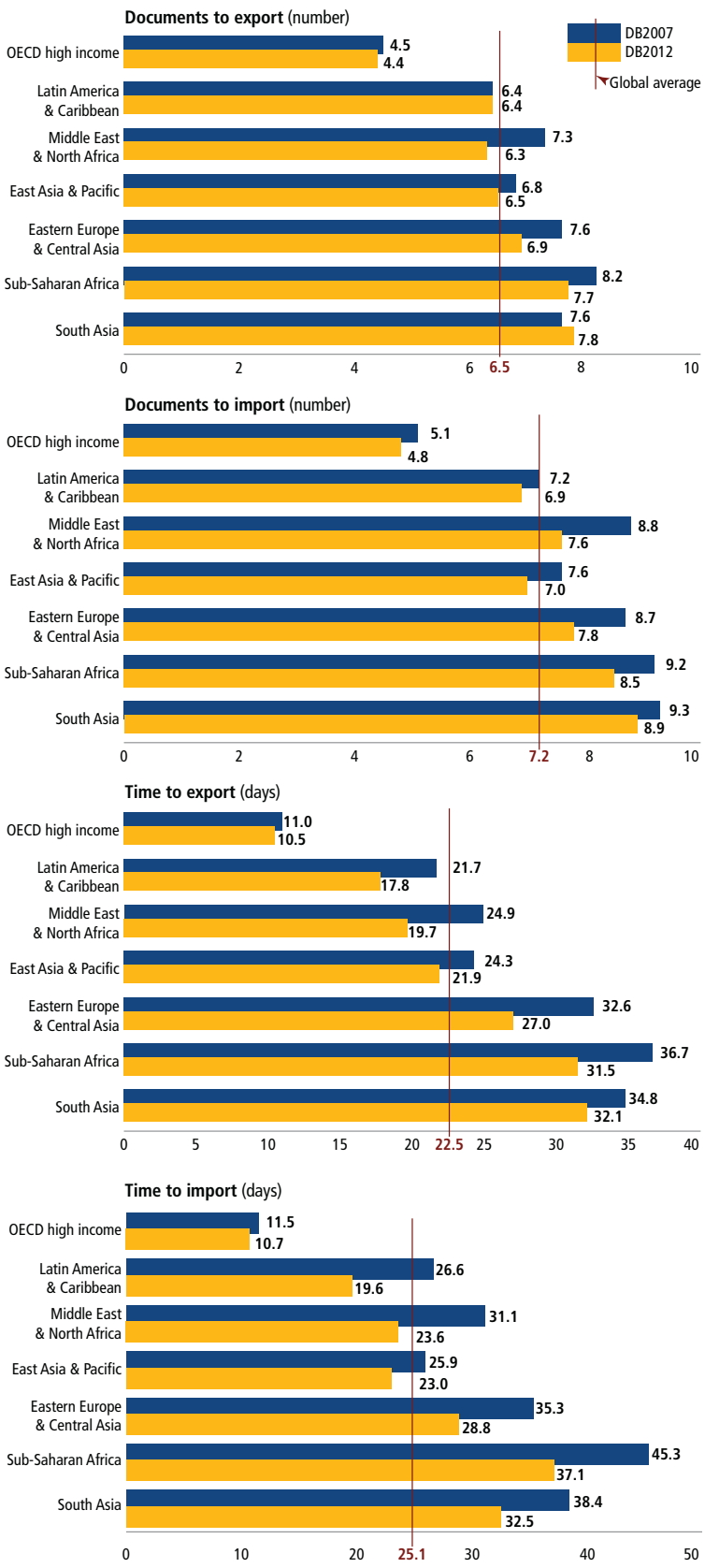
Electronic systems for filing, transferring, processing and exchanging customs information have become an important tool for managing flows of information, now widely used in complex trading systems. The newest web-based systems allow traders to submit their documents from anywhere and to pay duties online. The key to success is the ability of an economy to accommodate its regulatory framework to the new information technologies.

If implemented effectively, such a system saves precious time and money. It can also reduce interactions with officials, which means fewer opportunities for corruption. But introducing an electronic system often requires governments to enact legislation on electronic signatures and transactions. Otherwise it can lead to redundancy and delays, requiring paper submission of signed documents after they have been filed electronically. For small and low-income economies the infrastructure and training costs of implementing such systems can be onerous—and meaningful effects for local traders may take time to materialize.

Exchange of customs data and harmonization of customs procedures are important pillars of many regional communities, and

FIGURE 3 Trade becoming easier around the world

Regional averages in trading across borders



Note: The data sample for DB2007 (2006) includes 178 economies. The sample for DB2012 (2011) also includes The Bahamas, Bahrain, Cyprus, Kosovo and Qatar, for a total of 183 economies. DB2007 data are adjusted for any data revisions and changes in methodology and regional classifications of economies.

Source: Doing Business database.

electronic data interchange systems can support these regional integration initiatives. In Central America the International Goods in Transit (TIM) system harmonizes previously cumbersome procedures in a single document to manage the movement of goods across 9 economies. At some border locations this has reduced clearance times for goods in transit by up to 90%.[16] But linking 2 or more information technology systems through a common interface is not always easy. Integrating Kenya's Simba system with Uganda's ASYCUDA++ through the development of the Revenue Authorities Digital Data Exchange (RADDEx) system has taken several years and does not yet cover all trade between the 2 countries. Expanding this system to the rest of the East African Community also remains an ongoing challenge.

Today 82% of economies around the world allow traders to submit at least some of their export and import declarations, manifests and other trade-related documents to customs authorities electronically—though many of these systems are not linked to the internet and others still require hard copies. Across economies, regardless of income level, installing electronic data interchange systems has been one of the most common and effective ways to reduce delays in the trading process. Statistics from the Pakistan government show how large the effect can be. Before Pakistan implemented its electronic system in 2006, only 4% of goods were cleared within a day; for a quarter of the goods, clearance took more than 6 days. By 2008, 93% of goods were cleared within a day.[17]

Since 2007, 75 economies have introduced or improved such systems, with 12 doing so in 2010/11. Today traders can submit all trade documents electronically in more than half of OECD high-income economies with no need to provide hard copies. In Sub-Saharan Africa and Eastern Europe and Central Asia, by contrast, most economies that have electronic systems still require traders to submit hard copies.

Linking agencies through an electronic single window

Increasingly, economies are going a step further by virtually linking not only traders and customs but all agencies involved in trade and transport through an electronic single-window system. In the best case such a system allows traders to file standard information and documents through a single entry point to fulfill all import, export and transit-related regulatory requirements—then shares relevant information with all parties involved in trade, including private participants such as banks and insurance companies as well as public agencies such as immigration and vehicle registration authorities.

Today 49 economies around the world have implemented single-window systems of varying complexity (table 3). Developing economies are increasingly interested in such systems. Colombia and Senegal have both implemented single-window systems, though achieving complete functionality is an ongoing process. El Salvador set up a single window linking customs, government ministries and tax and social security authorities. This cut the number of documents traders need to submit by 2.[18]

Like the electronic data interchange system, the single-window system is being embraced by regional communities. The 10 member nations of the Association of Southeast Asian Nations (ASEAN) have set an ambitious goal of establishing an ASEAN-wide single window. Plans call for integrating members' national single windows so that a single submission of data and information suffices for the entire ASEAN region.

Several economies have reported positive results from the implementation of single-window systems. The Korea Customs Service estimates that the introduction of its single-window system brought some $18 million in benefits in 2010, part of the overall economic benefits that year of up to $3.47 billion from the agency's trade facilitation efforts.[19] Indeed, for Korean-based companies such as Samsung and LG, global leaders in

TABLE 2 Who made trading across borders easier in 2010/11—and what did they do?

Feature	Economies	Some highlights
Introduced or improved electronic data interchange system	Bulgaria; Chile; The Gambia; Honduras; Jordan; Liberia; Poland; São Tomé and Príncipe; Seychelles; Sierra Leone; Slovenia; Tanzania	Sierra Leone's new ASYCUDA system allows customs declarations to be lodged electronically.
Introduced or improved risk-based inspections	Belgium; Honduras; Jordan; Liberia	Jordan introduced the use of X-ray scanners for exports to improve its risk management system for customs inspections.
Improved procedures at ports	Djibouti; Vanuatu	Vanuatu upgraded Port-Vila's wharf infrastructure, and increased the efficiency of port and terminal handling activities.
Reduced number of trade documents	Russian Federation; Tanzania	Tanzania's implementation of the Pre-Arrival Declaration (PAD) system eliminated a double entry of documents by different authorities.
Improved customs administration	São Tomé and Príncipe	São Tomé and Príncipe modernized customs procedures through a series of legislative, administrative and technological changes.
Reduced barriers to entry in transport sector	Senegal	Senegal opened the market for transport and delivery of containers going through the port of Dakar, increasing competition.
Changed fee structure	Israel	Israel modified the method used to calculate port fees.

Source: Doing Business database.

TABLE 3 Good practices around the world in making it easy to trade across borders

Practice	Economies[a]	Examples
Using electronic data interchange	130[b]	Belize; Chile; Estonia; Pakistan; Turkey
Using risk-based inspections	97	Morocco; Nigeria; Palau; Suriname; Vietnam
Providing a single window	49[c]	Colombia; Ghana; Republic of Korea; Singapore

a. Among 159 economies surveyed for electronic data interchange, 152 for risk-based inspections and 150 for single window.

b. Twenty-six have a full electronic data interchange system, 104 a partial one.

c. Twenty have a single-window system that links all relevant government agencies, 29 a system that does not.

Source: Doing Business database.

the electronics industry, achieving rapid and predictable turnaround times is an important part of their competitiveness strategies.

In Singapore the implementation of a single window led to big gains in government productivity. The government established the world's first national single window for trade (TradeNet) in 1989, bringing together more than 35 border agencies. Singapore Customs claims that for every $1 earned in customs revenue it spends only 1 cent—a profit margin of 9,900%.[20]

Using risk-based inspections

Requiring imports and exports to undergo inspections—for tax, security, environmental, border control, and health and safety reasons—is often necessary. But how these inspections are carried out, including how cargo is selected for inspection, varies across economies. Done with a heavy hand, inspections can be a serious obstacle to efficient and predictable trade.

Over the years customs administrations around the world, working in tandem with other border control agencies, have developed systems for establishing risk profiles that allow them to apply physical inspections in proportion to the potential risk of consignments. Investing in equipment is another way to help expedite the processing of cargo. Many economies, including Albania, Cameroon, Nigeria and the Philippines, have adopted the use of scanners to limit the need to physically open containers. But in some economies the use of scanners has led to further delays because customs agents scan all containers. And mandatory scanning fees have added costs for traders. Efficient use of scanners in conjunction with risk-based profiling can strike the right balance in inspection, contributing to the efficiency of the trade process.

Risk-based inspections are the norm in OECD high-income economies. They are also becoming increasingly common elsewhere. Today 97 economies use risk-based inspections. Among these economies, 49 have introduced or improved a risk-based system since 2006, 31 of them low- or lower-middle-income economies.

Exporters and importers in Guyana are among those who are seeing a difference. They are benefiting from the country's improved risk-profiling through the Total Revenue Integrated Processing System (TRIPS). With the new system, fewer outgoing and incoming containers undergo physical inspection. This reduced average customs clearance times by 1 day for exports and 2 days for imports in 2009.

Overcoming geographic barriers through regional cooperation

Many landlocked economies face special challenges in competing globally because of the greater inland distances and multiple border crossings involved in their trade. These economies can accelerate trade through efforts to increase border cooperation agreements and reduce the number of checkpoints so that cargo can move freely—without being stopped for customs or other inspections—until it reaches its destination. A trader in Vienna, in landlocked Austria, needs only 2 days to transport cargo to the port of Hamburg, Germany, 900 kilometers away. A trader in Ouagadougou, in landlocked Burkina Faso, needs a week or considerably longer to transport cargo a similar distance to a port in neighboring Ghana or Togo. The difference is due in part to inadequate infrastructure. But it also results from additional controls and waiting time at border posts and checkpoints along the road.

Recognizing such obstacles, some landlocked economies have initiated reforms to facilitate trade. Mali signed a border cooperation agreement with Senegal that harmonized trade documents of the 2 countries. The number of checkpoints between Bamako and Dakar dropped from 25 to 4. In 2005 Honduras and Nicaragua cut the waiting time at their shared border in half. Before, traders had to go through inspections on both sides of the border; now the mutual recognition of inspections ensures that a single inspection suffices. Botswana is benefiting from greater cooperation with South Africa at the Tlokweng-Kopfontein border crossing.[21]

Synchronizing documents and procedures at the border can also save costs. A harmonized document for trade between China and Hong Kong SAR, China, reduced paperwork by 60%.[22] Thanks to a border cooperation agreement with Sweden and Finland, Norway is estimated to have avoided more than $9 million a year in costs to customs authorities and $48 million a year in costs to businesses.[23]

Sparking competition by making private participation easier

Beyond the customs formalities, private providers of trade services—such as customs brokers, transport companies and port service providers—all have important effects on the time and cost of trading across borders. Greater competition among trade service providers can lead to lower fees and higher quality of service. Governments can promote competition by removing high license fees, onerous eligibility requirements and caps on the number of brokers. After Algeria accelerated the approval of license applications for brokers, customs clearance fees dropped by 40–50%. But having many brokers to choose from is not enough. Appropriate rules and regulations and proper oversight of brokers' services are crucial to achieving good trade practices.

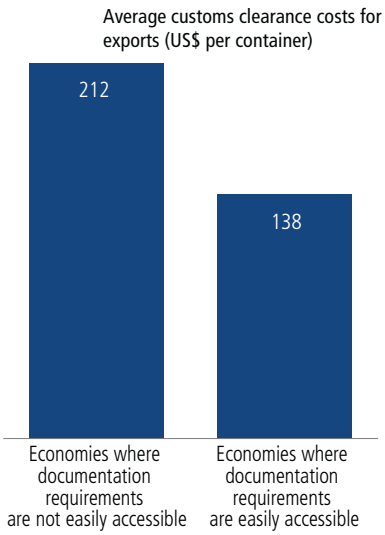
Competition in the trucking market has an effect in Zambia. Several foreign trucking companies, most from South Africa, operate along Zambian trade corridors, and the competition keeps truckers' rates lower than in Chad.[24]

Improving transparency to minimize costs

Improving transparency in trade by providing easy access to documentation requirements and tariff schedules can reduce transactions costs for importing and exporting. Where trading procedures and payment requirements are clear, customs brokers and trade consultants are less necessary. Consider the results of analysis using the cost of customs clearance (which includes official customs clearance fees) as a proxy for customs broker fees.[25] Among a sample of 174 economies, the average customs clearance cost for exports as measured by *Doing Business* is 25.3% lower in those where documentation requirements are easily accessible than in those where they are not (figure 4).[26]

Documentation requirements and tariff schedules for trade are easily accessible in most economies around the world: 78%

FIGURE 4 Customs clearance costs are lower where documentation requirements for trade are easily accessible



Note: Relationships are significant at the 5% level after controlling for income per capita. Documentation requirements for exporting and importing are considered publicly available if they can be obtained through the website of the customs authority or other government agencies or through public notices, without a need for an appointment with an official. The sample includes 174 economies.

Source: Doing Business database.

publish documentation requirements online, and 88% disseminate tariff schedules through websites. But in about 10% of economies this information is available only through private customs brokers. And even where documentation requirements and tariffs are easily accessible, the information is not always up to date or sufficiently detailed. Lack of clarity in these 2 areas still contributes to considerable hassles and delays for traders.

Not all trade facilitation reforms require heavy spending. Initiatives such as providing training, clarifying and publicizing the rules and holding regular meetings with exporters on the clearance process can make a difference. For example, through a series of efforts to improve customs administration—such as training staff, reducing inspections, simplifying procedures and enhancing communication with users—Grenada reduced the customs clearance time by 3 days for exports and 2 days for imports between 2008 and 2010.[27]

TABLE 4 Who makes exporting easy—and who does not?

Documents (number)

Fewest		Most	
France	2	Afghanistan	10
Canada	3	Burkina Faso	10
Estonia	3	Côte d'Ivoire	10
Japan	3	Iraq	10
Korea, Rep.	3	Malawi	10
Panama	3	Uzbekistan	10
Sweden	3	Angola	11
Finland	4	Cameroon	11
Hong Kong SAR, China	4	Congo, Rep.	11
Singapore	4	Tajikistan	11

Time (days)

Fastest		Slowest	
Denmark	5	Zimbabwe	53
Estonia	5	Central African Republic	54
Hong Kong SAR, China	5	Niger	59
Singapore	5	Kyrgyz Republic	63
Luxembourg	6	Uzbekistan	71
Netherlands	6	Afghanistan	74
United States	6	Chad	75
Germany	7	Kazakhstan	76
Norway	7	Iraq	80
United Kingdom	7	Tajikistan	82

Cost (US$ per container)

Least		Most	
Malaysia	450	Kyrgyz Republic	3,210
Singapore	456	Rwanda	3,275
China	500	Zimbabwe	3,280
Finland	540	Afghanistan	3,545
Hong Kong SAR, China	575	Niger	3,545
Morocco	577	Iraq	3,550
Vietnam	580	Congo, Rep.	3,818
Latvia	600	Tajikistan	3,850
Israel	610	Central African Republic	5,491
Egypt, Arab Rep.	613	Chad	5,902

Who makes importing easy—and who does not?

Documents (number)

Fewest		Most	
France	2	Afghanistan	10
Denmark	3	Russian Federation	10
Korea, Rep.	3	Azerbaijan	11
Sweden	3	Chad	11
Estonia	4	Uzbekistan	11
Hong Kong SAR, China	4	Bhutan	12
Norway	4	Cameroon	12
Panama	4	Eritrea	12
Singapore	4	Kazakhstan	12
United Kingdom	4	Central African Republic	17

Time (days)

Fastest		Slowest	
Singapore	4	Congo, Dem. Rep.	63
Cyprus	5	Niger	64
Denmark	5	Venezuela, RB	71
Estonia	5	Kyrgyz Republic	72
Hong Kong SAR, China	5	Zimbabwe	73
United States	5	Afghanistan	77
Luxembourg	6	Iraq	83
Netherlands	6	Tajikistan	83
Sweden	6	Uzbekistan	92
United Kingdom	6	Chad	101

Cost (US$ per container)

Least		Most	
Malaysia	435	Afghanistan	3,830
Singapore	439	Burkina Faso	4,030
China	545	Tajikistan	4,550
Israel	545	Uzbekistan	4,650
Hong Kong SAR, China	565	Burundi	4,855
São Tomé and Príncipe	577	Rwanda	4,990
Finland	620	Zimbabwe	5,101
Fiji	635	Central African Republic	5,554
United Arab Emirates	635	Congo, Rep.	7,709
Indonesia	660	Chad	8,525

Source: Doing Business database.

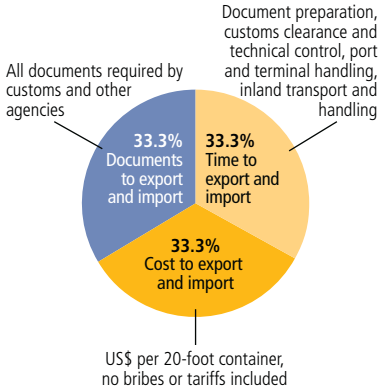
DATA NOTES ON TRADING ACROSS BORDERS

Doing Business measures the time and cost (excluding tariffs) associated with exporting and importing a standardized cargo of goods by ocean transport. The time and cost necessary to complete every official procedure for exporting and importing the goods—from the contractual agreement between the 2 parties to the delivery of goods—are recorded. All documents needed by the trader to export or import the goods across the border are also recorded. For exporting goods, procedures range from packing the goods into the container at the warehouse to their departure from the port of exit. For importing goods, procedures range from the vessel's arrival at the port of entry to the cargo's delivery at the warehouse. The time and cost for ocean transport are not included. Payment is made by letter of credit, and the time, cost and documents required for the issuance or advising of a letter of credit are taken into account. The ranking on the ease of trading across borders is the simple average of the percentile rankings on its component indicators (figure A.1).

Local freight forwarders, shipping lines, customs brokers, port officials and banks provide information on required documents and cost as well as the time to complete each procedure. To make the data comparable across economies, several assumptions about the business and the traded goods are used.

FIGURE A.1 Trading across borders: exporting and importing by ocean transport

Rankings are based on 3 indicators



Assumptions about the business

The business:

- Has at least 60 employees.
- Is located in the economy's largest business city.
- Is a private, limited liability company. It does not operate in an export processing zone or an industrial estate with special export or import privileges.
- Is domestically owned with no foreign ownership.
- Exports more than 10% of its sales.

Assumptions about the traded goods

The traded product travels in a dry-cargo, 20-foot, full container load. It weighs 10 tons and is valued at $20,000. The product:

- Is not hazardous nor does it include military items.
- Does not require refrigeration or any other special environment.
- Does not require any special phytosanitary or environmental safety standards other than accepted international standards.
- Is one of the economy's leading export or import products.

Documents

All documents required per shipment to export and import the goods are recorded (table A.1). It is assumed that the contract has already been agreed upon and signed by both parties. Documents required for clearance by government ministries, customs authorities, port and container terminal authorities, health and technical control agencies, and banks are taken into account. Since payment is by letter of credit, all documents required by banks for the issuance or securing of a letter of credit are also taken into account. Documents that are renewed annually and that do not require renewal per shipment (for example, an annual tax clearance certificate) are not included.

TABLE A.1 What do the trading across borders indicators measure?

Documents required to export and import (number)
Bank documents
Customs clearance documents
Port and terminal handling documents
Transport documents
Time required to export and import (days)
Obtaining all the documents
Inland transport and handling
Customs clearance and inspections
Port and terminal handling
Does not include ocean transport time
Cost required to export and import (US$ per container)
All documentation
Inland transport and handling
Customs clearance and inspections
Port and terminal handling
Official costs only, no bribes

Time

The time for exporting and importing is recorded in calendar days. The time calculation for a procedure starts from the moment it is initiated and runs until it is completed. If a procedure can be accelerated for an additional cost and is available to all trading companies, the fastest legal procedure is chosen. Fast-track procedures applying to firms located in an export processing zone are not taken into account because they are not available to all trading companies. Ocean transport time is not included. It is assumed that neither the exporter nor the importer wastes time and that each commits to completing each remaining procedure without delay. Procedures that can be completed in parallel are measured as simultaneous. The waiting time between procedures—for example, during unloading of the cargo—is included in the measure.

Cost

Cost measures the fees levied on a 20-foot container in U.S. dollars. All the fees associated with completing the procedures to export or import the goods are included. These include costs for documents, administrative fees for customs clearance and technical control, customs broker fees, terminal handling charges and inland transport. The cost does not include customs tariffs and duties or costs related to ocean transport. Only official costs are recorded.

The data details on trading across borders can be found for each economy at http://www.doingbusiness.org by selecting the economy in the drop-down list. This methodology was developed in Djankov, Freund and Pham (2010) and is adopted here with minor changes.

NOTES

1. The economy was the youngest as of October 2011. See John Oywa, "In Juba, a Haircut Will Cost You Sh800," *The Standard* (Nairobi), March 12, 2010, http://www.standardmedia.co.ke/.
2. World Bank 2010.
3. Trading is assumed to take place through seaports because maritime transport is the most common means of international trade. To this extent the trading across borders indicators provide the most accurate measures of what traders around the world must deal with to export and import, while the standardized case study ensures that the data remain comparable across economies and over time. The indicators do not measure the ease of trading by other modes, such as land or air, which limits the assessment of an economy. For example, the indicators do not measure regional trade—which is becoming increasingly important, particularly for landlocked economies—even if an economy trades mainly with immediate neighbors by land. In addition, the indicators measure logistical aspects only between the largest business city of an economy and the port. In low-income economies this logistical route tends to be the most developed and is not representative of the connectivity to the rest of the economy, which may be more relevant for small and medium-size businesses.
4. For importers in landlocked economies, goods need to be first bonded at the port and then acquitted at the inland border post so that they can transit through third economies. In some cases goods can be transported to the importer's warehouse, but inspections might still need to be performed before the goods can be used or sold.
5. For a review of discussions on the role of trade in international technology transfer, see Saggi (2002).
6. Arvis, Mustra and others 2010.
7. Li and Wilson 2009.
8. Bolaky and Freund 2008.
9. Hoekman and Nicita 2009.
10. Wilson, Mann and Otsuki 2004.
11. Arvis, Marteau and Raballand 2010.
12. Freund and Rocha 2010.
13. See Duval and Utoktham (2009), Cuñat and Melitz (2007) and Ranjan and Lee (2007), among others.
14. De Wulf and Sokol 2004.
15. World Bank 2009, p. 50.
16. Sarmiento, Lucenti and Garcia 2010.
17. Ahmad 2010.
18. World Bank 2008b, p. 45.
19. Korea Customs Service 2011.
20. Singapore Customs Service 2007.
21. World Bank 2008a, p. 9.
22. World Bank 2006, p. 45.
23. World Bank 2008a, p. 47.
24. World Bank 2009, p. 53.
25. Only official costs and private sector charges are captured by the trading across borders indicators. Measures of time to export and import reflect time required in the absence of any informal payments.
26. There is also a statistically significant difference for export cost, but not for import customs clearance fees or total import cost. This could be because customs brokers play a larger role in import customs clearance than merely informing traders of documentation requirements.
27. *Doing Business* database.

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