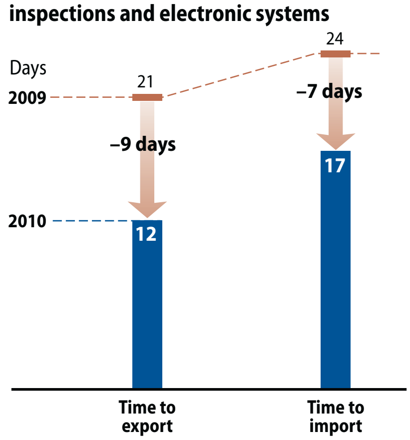
Trading across borders

FIGURE 9.1
Traders in Peru benefit from risk-based inspections and electronic systems



Who improved the most in trading across borders?

1. *Peru*
2. *Grenada*
3. *Armenia*
4. *Montenegro*
5. *Nicaragua*
6. *Rwanda*
7. *Cambodia*
8. *Egypt, Arab Rep.*
9. *Spain*
10. *Philippines*

Source: Doing Business database.

Traders at the Chirundu crossing between Zambia and Zimbabwe have long dealt with congestion and delays at the busy border post. Procedures duplicated on each side of the border and involving up to 15 government agencies often require a wait of 2–3 days to clear goods. This is starting to change, thanks to a one-stop border post that was recently established. Trucking companies will save, because delays "cost each truck $140 per day in fixed costs and driver's time," notes Juma Mwapachu, the secretary general of the East African Community. "The potential cost saving is about $486 million per year, which accrues to our economies and competitiveness."[1]

In a globalized world, making trade between countries easier is increasingly important for business. Bedi Limited, a garment producer in Nakuru, Kenya, spent 18 months pursuing a trial order for school items from Tesco, one of the United Kingdom's largest retail chains. Bedi landed the order and the delivery date was set for early July, in time for the August back-to-school promotions. Bedi's goods arrived in Kenya's port city of Mombasa at the end of June, ready for shipment. But they were delayed at the port due to congestion and didn't arrive in the United Kingdom until August. Bedi missed Tesco's school promotions—and lost out on the chance to become part of its global supply chain.[2]

The ability of firms and economies to compete in global markets has been put to the test in the past 2 years of economic turmoil. In 2009 world trade recorded its largest decline in more than 70 years. No region was left untouched.[3] But one study shows that during the recent slump in global demand, making trade easier helped to mitigate the drop in an economy's exports by promoting stronger links between suppliers and buyers. By contrast, an extra day's delay led to about an additional 0.5% fall in exports to the United States.[4]

While trade recovered in 2010 and fears of a surge in protectionism have largely subsided, burdensome documentation requirements, time-consuming customs procedures, inefficient port operations and inadequate transport infrastructure still lead to unnecessary costs and delays for traders. Poor performance in just 1 or 2 of these areas can have serious repercussions for an economy's overall trade competitiveness, as shown by the World Bank's Logistics Performance Index.[5] By removing these obstacles, governments can create an environment

TABLE 9.1
Where is trading across borders easy—and where not?

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

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

FIGURE 9.2
How much time, how many documents and what cost to export and import across borders by ocean transport?

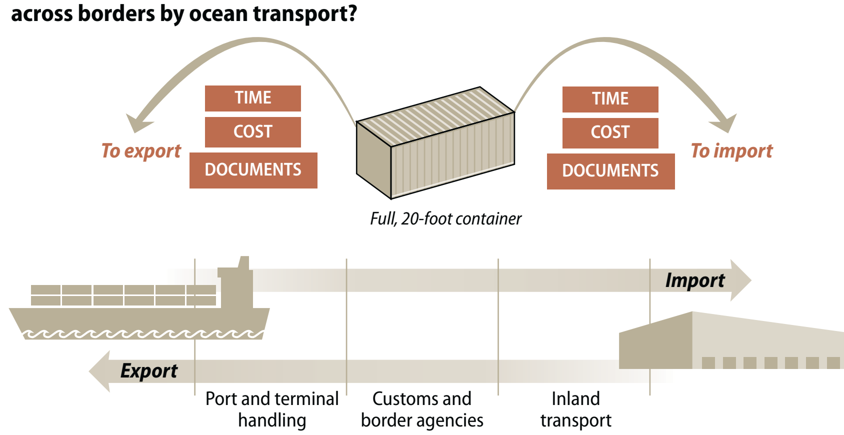


TABLE 9.2
Who made trading across borders easier in 2009/10—and what did they do?

Feature	*Economies*	*Some highlights*
Introduced or improved electronic data interchange system	Bahrain, Belarus, Brunei Darussalam, Arab Republic of Egypt, Israel, Kazakhstan, Latvia, Lithuania, Nicaragua, Pakistan, Peru, Philippines, Swaziland, Tunisia, United Arab Emirates, Zambia	Latvia and Lithuania improved their electronic declaration systems to comply with EU requirements on paperless customs that entered into force in 2009.
Improved customs administration	Armenia, Arab Republic of Egypt, Ethiopia, Fiji, Grenada, Mali, Peru, West Bank and Gaza	Traders in Grenada are benefiting from the modernization of the customs administration, in the context of a World Bank Technical Assistance Project.
Improved procedures at ports	Angola, Bahrain, Kenya, Nicaragua, Pakistan, Saudi Arabia	Containers can now move more easily through the Port of Luanda in Angola thanks to the completion of 2 dry ports and new equipment.
Reduced number of trade documents	Burkina Faso, Cambodia, Kazakhstan, Montenegro, Rwanda, Spain	Imports and exports in Cambodia no longer require preshipment inspection.
Introduced or improved risk-based inspections	Armenia, Guyana, Kazakhstan, Peru	Improved risk profiling along with the use of new equipment reduced the time for inspections at Armenia's border posts.
Introduced or improved single window	Indonesia, Israel, Madagascar	An integrated electronic national single window service system became operational in 2010 at several of Indonesia's main seaports.
Implemented border cooperation agreements	Rwanda, Zambia	Better cooperation between the agencies involved in customs clearance at the border between Zambia and Zimbabwe reduced waiting time for traders.

Source: Doing Business database.

that encourages entrepreneurs to look beyond their own borders for business opportunities (table 9.1).

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 9.2). The indicators cover procedural requirements such as documentation requirements and procedures at customs and other regulatory agencies as well as at the port. They also cover trade logistics, including the time and cost of inland transport to the largest business city. 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 traders to be competitive and to reach international markets.

In 2009/10, 33 economies made it easier to trade. Sub-Saharan Africa accounted for the most improvements in trading across borders, followed by the Middle East and North Africa and Eastern Europe and Central Asia. Introducing or enhancing electronic data interchange systems was the most popular change, followed by improving customs administration and port performance (table 9.2).

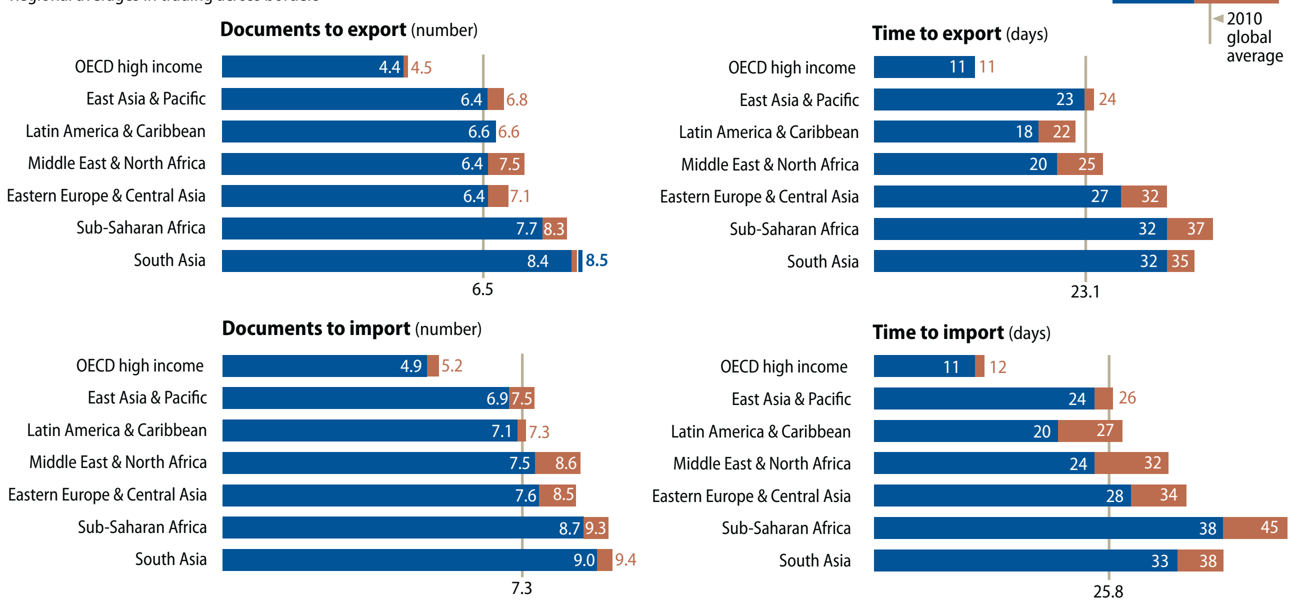
Peru improved the ease of trading across borders the most. A new web-based electronic data interchange system is helping to speed up document submission as well as clearance time. Fewer physical inspections of cargo are now needed at customs offices thanks to further implementation of risk-based inspections, though there remains room for improvement. The introduction of payment deferrals for import duties and taxes has also reduced import time, since cargo no longer needs to sit at the port until tariffs and tax payments are settled. Rwanda further improved its trade logistics environment by reducing the number of trade documents required and continuing its efforts toward establishing joint border management procedures with Uganda and other neighbors. The improvements build on earlier efforts in Rwanda to implement electronic submission of customs declarations and increase acceptance points for submission.

WHAT ARE THE TRENDS?

Trading across borders as measured by *Doing Business* has become faster and easier over the years. From the conclusion of a contractual agreement between the exporter and importer to the moment goods are shipped or received (excluding maritime transport) takes 23.1 days on average for exporting and 25.8 for importing. In 2006 it took 26.4 days on average to export and 30.9 to import. Traders in OECD high-income economies have it easiest: to export or import takes about 11 days and fewer than 5 documents on average. Traders in Sub-Saharan Africa, where trade is slowest and most expensive, typically face delays 3 times as long, with the time to export averaging 32 days and the time to import 38 (figure 9.3).

Disparities among regions have changed little over the years. Exporting and importing remain least expensive in East Asia and the Pacific. Inland transport is a challenge for many economies of Eastern Europe and Central Asia because of their distance from ports. And

FIGURE 9.3
Trade becoming faster around the world—with biggest gains in the Middle East and North Africa
Regional averages in trading across borders



Note: The data sample for DB2007 (2006) includes 178 economies. The sample for DB2011 (2010) also includes The Bahamas, Bahrain, Cyprus, Kosovo and Qatar, for a total of 183 economies.
Source: Doing Business database.

economies in South Asia require the largest number of trade-related documents on average. Nevertheless, thanks to efforts at global, regional and national levels, the global trade environment has improved. Trade facilitation has become an important part of governments' strategies to increase national competitiveness and diversify exports, often supported by multilateral organizations—including the World Trade Organization, the World Customs Organization and the World Bank—and bilateral donors.

CUTTING RED TAPE

Trade agreements and customs unions have spurred reforms around the world making it easier to trade across borders. Cargo can move more easily within trade blocs such as the Southern African Customs Union thanks to a common transit document that can be used in all member nations. The Association of Southeast Asian Nations (ASEAN) has been working on an ASEAN-wide single window since 2004. Negotiations on free trade agreements with the United States have often been a driving force for improvements in trade facilitation in Latin America and the Caribbean, as in Colombia, the Dominican Republic and Peru.[6] Efforts in several Eastern European economies to ease trade were motivated by the need to comply with EU trade regulations or by the conditions for accession to EU membership.

The time to trade has fallen in all regions, for a number of reasons. In Sub-Saharan Africa much of the drop in the time for exporting and importing was achieved by introducing electronic data interchange systems—as in Madagascar, Mali and Tanzania—and by reducing delays at ports and customs through infrastructure improvements—as in Benin and Eritrea. Sometimes simply extending office hours—as in Kenya, Rwanda and Senegal—made processes faster.

OECD high-income economies have advanced the most in the use of electronic customs declarations. Economies now achieve customs clearance times of hours or even minutes, as in France, Korea and New Zealand. In the European Union paperless electronic declaration became mandatory in January 2010.

Elimination of unnecessary documentation was popular in Latin America and the Caribbean. The Dominican Republic, Ecuador and Honduras eliminated notarization requirements. Large investments in infrastructure, including ports, were common in the Middle East. These were motivated by years of record-high oil prices coupled with integration with global markets, as seen in Dubai, for example.

OVERCOMING GEOGRAPHIC BARRIERS

The geographic characteristics of economies can also influence their approach to trade reforms. For small island states, trade is often critical. Some, such as Singapore, have used their reliance on sea transport to their advantage and become trade hubs for their region. The close proximity of the largest business city to the port and the small volume of cargo can mean speedy inland transport and customs clearance. But many islands are isolated—container vessels call at the port only every 35–40 days in São Tomé and Principe, for example—and lack economies of scale.

By contrast, many landlocked economies face high inland transport costs to reach ports and delays at border posts. Not surprisingly, traders in landlocked economies face a higher average time and cost to export and import than traders elsewhere. But geography is not destiny. Border cooperation agreements can en-

TABLE 9.3
Good practices around the world in making it easy to trade across borders

Practice	*Economies*[a]	*Examples*
Using electronic data interchange	116[b]	Chile, Malaysia, Slovenia, United Arab Emirates
Using risk-based inspections	112	Arab Republic of Egypt, Estonia, Kenya, Thailand
Providing a single window	40	Colombia, Israel, Senegal, Singapore

a. Among 149 economies surveyed.
b. Twenty-eight have a full electronic data interchange system, 88 a partial one.
Source: Doing Business database.

able cargo to move freely—without being stopped for customs—until it reaches its destination. A trader in Vienna, in landlocked Austria, needs only 2 days to arrange for and complete the transport of cargo to the German port of Hamburg despite the distance of 900 kilometers. This is similar to the distance that cargo in Ouagadougou, in landlocked Burkina Faso, must travel to reach a port in neighboring Ghana or Togo. Yet transporting a container between Ouagadougou and Tema (in Ghana) or Lomé (in Togo) can take a week or considerably longer. The difference is due in part to inadequate infrastructure. But it also results from additional controls and waiting time at border posts.

To ensure speed while addressing security concerns, some developing economies are introducing fast-track systems for traders with a good track record—"compliant trader" or "gold card trader" programs. The European Union and OECD high-income economies such as the United States have developed a more sophisticated but complex certification system that authorizes certain businesses to move faster through the logistics of importing and exporting.

WHAT HAS WORKED?

The economies with the most efficient trade 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. Many OECD high-income economies rank high on the ease of trading across borders, but so do developing economies such as Mauritius, Panama and Thailand.

LINKING UP ELECTRONICALLY

Electronic data interchange systems have become common around the world: 78% of the 149 surveyed economies allow traders to submit at least some of their export and import declarations, manifests and other trade-related documents to customs authorities electronically (table 9.3). Traders can submit all trade documents electronically in half of OECD high-income economies but only in less than 5% of economies in Sub-Saharan Africa and Eastern Europe and Central Asia. The newest systems are web-based, allowing traders to submit their documents from anywhere and at any time. This saves precious time and money (not to mention paper). And fewer interactions with officials mean fewer opportunities for corruption.

Electronic data interchange systems can support regional integration. In Central America the International Goods in Transit (TIM) system harmonizes previously cumbersome procedures in a single electronic document for managing the movement of goods across 9 economies. At some border locations this has reduced clearance times for goods in transit by up to 90%.[7]

But simply having an electronic system in place is not enough. Other factors have to be considered. To function properly, electronic data interchange systems require basic infrastructure such as adequate electricity supply and reliable internet connections—a challenge for many low-income economies. Electronic signature and transaction laws must be in place to ensure legal validity and avoid disputes. In addition, users will benefit only if they have received adequate training and if systems are user friendly and easy to install. In many economies that have electronic systems, such as Botswana, The Gambia and St. Vincent and the Grenadines, customs authorities still require traders to submit hard copies. This neutralizes potential benefits and may even generate extra work for users.

OPENING A SINGLE WINDOW

Some economies go a step further by linking not only traders and customs but all agencies involved in trade. An electronic single-window system allows users to submit their export or import information in a virtual location that communicates with all the relevant authorities for obtaining documents and approvals. Traders no longer need to visit different physical locations. The most advanced systems, such as the electronic trade portal in Korea, also connect private sector participants such as banks, customs brokers, insurance companies and freight forwarders.

Single-window systems are most prevalent among OECD high-income economies. Given the cost and complexity of setting up such systems, this is not surprising. But Colombia and Senegal have also successfully implemented single-window systems.

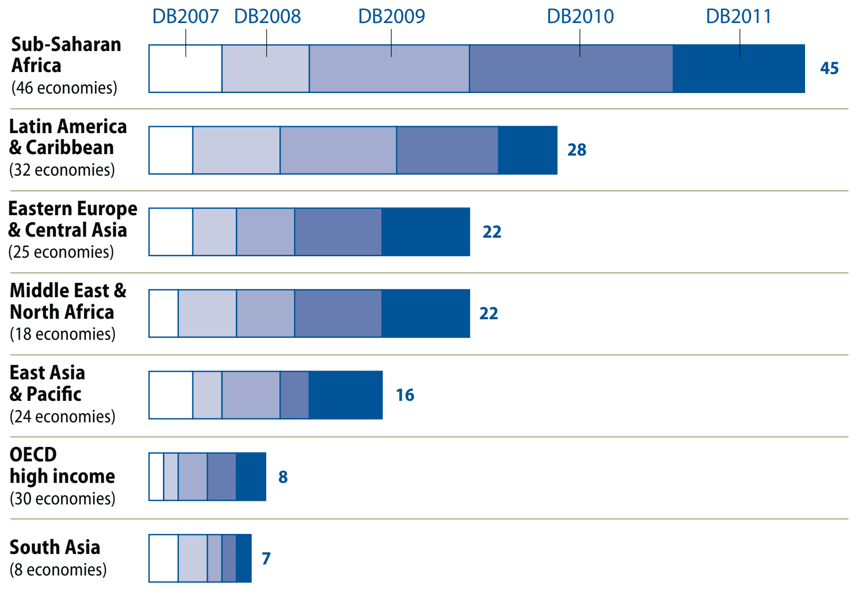
FACTORING IN RISK

Requiring imports and exports to undergo several types of inspections—for tax, security, environmental, border control and health and safety reasons—is a normal thing. But how these inspections are carried out is critical. Done with a heavy hand, they can be a serious obstacle to efficient and transparent trade.

Over the years customs administrations around the world have developed systems for establishing risk profiles that allow them to limit physical inspections to only the riskiest consignments. The use of scanners in conjunction with risk-based profiling eliminates the need to open cargo, contributing to the efficiency of inspections. Traders in landlocked Kazakhstan face shorter customs clearance delays at the border with China thanks to the installation and implementation of a TC-SCAN system in recent years. Albania, Cameroon, the Islamic Republic of Iran, FYR Macedonia, Nigeria and the Philippines are other examples of economies that use scanners. But in some cases, such as in Zambia, the use of scanners alone has made delays worse—because customs authorities scan all consignments that pass through the border rather than using risk management to select just the risky ones for scanning.

Risk-based inspections are the norm in OECD high-income economies. They are also becoming increasingly common elsewhere. In Eastern Europe and Central Asia 86% of surveyed economies have adopted risk-based inspections.

FIGURE 9.4
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: A *Doing Business* reform is counted as 1 reform per reforming economy per year. The data sample for DB2007 (2006) includes 178 economies. The sample for DB2011 (2010) also includes The Bahamas, Bahrain, Cyprus, Kosovo and Qatar, for a total of 183 economies.
Source: Doing Business database.

WHAT ARE SOME RESULTS?

Implementing new services to ease trade matters only if they provide real benefits to both users and providers. In the best cases they can lead to economy-wide gains. More than 100 economies improved trade procedures in the past 5 years and are reaping the benefits of more efficient systems (figure 9.4).

COMPETITIVE EDGE FOR BUSINESSES

Ahmet Baslikaya, a Turkish exporter of industrial equipment, reports that customs reforms have reduced his clearance costs by 10–15%. "I can send all documents by e-mail to the customs authorities. Apart from the savings in time, we are also saving on labor costs. I used to employ a courier to deliver these documents on my behalf to customs, paying him $400 a month. This is now savings to my company." Rasheed, an exporter in the United Arab Emirates, tells a similar story. "Formerly we were employing 2 people working full time; each one was paid a salary of $500 a month. Now we need only one person, and even that one person needs to work for only about 5–6 hours a day for the customs clearance tasks and spends the rest of the time doing other data entry work."

In an increasingly competitive global economy, improving the trade facilitation environment can help give businesses a competitive edge. This is often a major impetus for government action. Yet support from the private sector cannot be taken for granted. When Kenya introduced its electronic customs system, Simba, in 2005, the Kenya International Freight and Warehousing Association initiated a court action. Members felt that Simba imposed unfair and costly requirements, such as the need for computerization and training.[8] Traders in the Dominican Republic make similar complaints, claiming that the country's electronic system creates more obstacles than benefits. They report technical glitches and feel that the system was developed without getting input from users or adequately preparing them for the change.

Transitions are challenging. But policy makers can avoid bigger problems down the road by involving stakeholders throughout the process. Implemented correctly, trade facilitation reforms can yield big cost savings. Such reforms in Georgia reduced the customs clearance time for a commercial truck by a day. That saves a day's operating cost, $288 per truck. In 2006, with about 139,000 truck crossings, this translated into estimated annual savings of $40 million. Two years later the number of truck crossings had grown to more than 600,000 annually—and the annual savings by an additional $133 million.[9]

GREATER INTEGRATION

Easing trade can also open opportunities for domestic firms to be part of global production networks. Firms in developing economies often miss out on global production links because of unfavorable trade facilitation environments that create delays—like those encountered by Bedi.

Traders in Korea need not worry about such delays. Korea Customs Service estimates that predictable cargo processing times and rapid cargo turnover by ports and warehouses provide a benefit to the Korean economy of some $2 billion annually.[10] Indeed, for Korean-based companies such as Samsung and LG, global leaders in the electronics industry, the rapid and predictable turnaround times are an important part of their competitiveness strategies.

TABLE 9.4

Where is exporting easy—and where not?

Documents *(number)*			
Fewest		**Most**	
France	2	Burkina Faso	10
Armenia	3	Cambodia	10
Canada	3	Kazakhstan	10
Estonia	3	Angola	11
Korea, Rep.	3	Cameroon	11
Micronesia, Fed. Sts.	3	Congo, Rep.	11
Panama	3	Malawi	11
Sweden	3	Mauritania	11
Finland	4	Namibia	11
Hong Kong SAR, China	4	Afghanistan	12
Time *(days)*			
Fastest		**Slowest**	
Denmark	5	Zimbabwe	53
Estonia	5	Central African Republic	54
Singapore	5	Niger	59
Hong Kong SAR, China	6	Kyrgyz Republic	63
Luxembourg	6	Uzbekistan	71
Netherlands	6	Afghanistan	74
United States	6	Chad	75
Cyprus	7	Iraq	80
Germany	7	Kazakhstan	81
Norway	7	Tajikistan	82
Cost *(US$ per container)*			
Least		**Most**	
Malaysia	450	Rwanda	3,275
Singapore	456	Zimbabwe	3,280
China	500	Tajikistan	3,350
United Arab Emirates	521	Congo, Dem. Rep.	3,505
Finland	540	Niger	3,545
Vietnam	555	Iraq	3,550
Saudi Arabia	580	Congo, Rep.	3,818
Latvia	600	Afghanistan	3,865
Pakistan	611	Central African Republic	5,491
Egypt, Arab Rep.	613	Chad	5,902

Where is importing easy—and where not?

Documents *(number)*			
Fewest		**Most**	
France	2	Burkina Faso	10
Denmark	3	Afghanistan	11
Korea, Rep.	3	Bhutan	11
Sweden	3	Mauritania	11
Thailand	3	Cameroon	12
Estonia	4	Kazakhstan	12
Hong Kong SAR, China	4	Eritrea	13
Norway	4	Russian Federation	13
Panama	4	Azerbaijan	14
Singapore	4	Central African Republic	17
Time *(days)*			
Fastest		**Slowest**	
Singapore	4	Kazakhstan	67
Cyprus	5	Burundi	71
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**	
Singapore	439	Afghanistan	3,830
Malaysia	450	Burkina Faso	4,030
United Arab Emirates	542	Burundi	4,285
China	545	Tajikistan	4,550
São Tomé and Principe	577	Uzbekistan	4,650
Hong Kong SAR, China	600	Rwanda	4,990
Israel	605	Zimbabwe	5,101
Finland	620	Central African Republic	5,554
Fiji	630	Congo, Rep.	7,709
Vietnam	645	Chad	8,150

Source: Doing Business database.

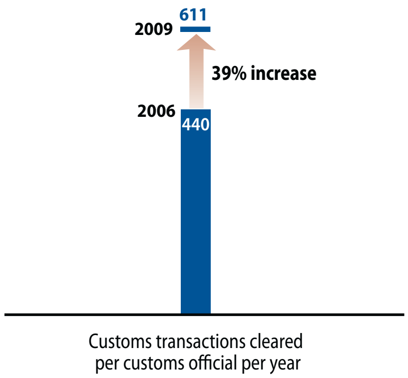
GAINS FOR GOVERNMENTS

Businesses are not the only ones to benefit. Making it easier to trade across borders can lead to significant benefits for the government by boosting customs revenue. In Angola between 2001 and 2008, customs revenue increased by more than 1,600%, though from a low base. Not all governments experience such big surges in revenue, but steady increases add up. In Georgia improvements in customs clearance procedures, coupled with greater trade, contributed to a 92% increase in value added tax revenue (60–65% of which is collected at the border) between 2005 and 2009. Ghana saw customs revenue grow by 49% in the first 18 months after implementing GCNet, its electronic data interchange system for customs procedures.[11]

Making it easier to trade across borders also assists government operations. Rwanda's consistent reforms easing trade have led to increased productivity of customs officials (figure 9.5). The implementation of single windows in Korea and Singapore also led to big gains in productivity. Singapore, which established the world's first national single window (TradeNet) in 1989 by bringing together more than 35 border agencies, estimates that for every $1 earned in customs revenue it spends only 1 cent—a profit margin of 9,900%.[12] Such gains have allowed it to pass on the benefits to traders. In 1988, under the manual system, traders were charged a processing and transmission fee of S$10. Today the fee is only S$1.80.

While electronic systems can yield big gains, initial investments and operations can be costly. Korea Customs Service estimates that it spends some $38 million annually on its information technology infrastructure, $9 million of

FIGURE 9.5
Improvements in customs administration boost efficiency in Rwanda



Source: Government of Rwanda.

which is for the single-window system. But the estimated benefits, $2–3.3 billion a year according to the agency, far outweigh the costs. For economies with basic computer systems, however, the cost of implementing automated systems can be significant.

Moreover, automated systems can speed up customs procedures only if customs officials and private sector users are adequately trained to use the new technology. Inadequate infrastructure can also be a constraint, such as when customs officials are forced to stop working every time an unreliable electricity supply disrupts internet connections. Nevertheless, many economies continue to learn from Singapore's experience. Ghana, Madagascar, Mauritius, Panama and Saudi Arabia are all using adapted versions of TradeNet.

BEYOND ANECDOTES

The case for trade facilitation reforms goes beyond anecdotal evidence. It is well grounded in the economics literature. A study in Sub-Saharan Africa finds that a 10% reduction in exporting costs increases exports by 4.7%, a greater impact than would come from further reductions in tariffs by richer economies.[13] According to another study, African economies' limited participation in global supply chains for textiles and garments—both time-sensitive products—can be attributed to delays at customs.[14]

A study focusing on Asia-Pacific Economic Cooperation (APEC) economies shows that cutting the days 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%.[15] Another study on APEC economies finds that eliminating layers of trade regulation and improving institutions would cut information and compliance costs for businesses—and lead to an estimated 7.5% increase in intraregional trade and $406 billion in global welfare gains.[16] Transport constraints can play an important part in trade competitiveness, according to a recent study. In the Middle East and North Africa, reducing transport constraints to the world average could increase exports by about 10% and imports by more than 11%.[17]

But trade facilitation alone is not enough. Other factors in the business environment, some of which are considered elsewhere in this report, play a complementary part in boosting trade. Recent studies point to the importance of such factors as the depth of credit information, enforcement of contracts and flexibility of labor markets.[18]

1. Statement during the official launch of the Chirundu one-stop border post, December 5, 2009.
2. Bedi (2009).
3. WTO (2010).
4. Dennis (2010).
5. World Bank, Logistics Performance Index, 2007 and 2010 (http://www.worldbank.org/lpi).
6. The United States–Colombia Trade Promotion Agreement was signed on November 22, 2006, but is awaiting approval by the U.S. Congress before it can enter into force.
7. Sarmiento, Lucenti and Garcia (2010).
8. BIZCLIR (2007).
9. Beruashvili and McGill (2010).
10. Korea Customs Service (2010).
11. De Wulf and Sokol (2004).
12. Singapore Customs Service (2007).
13. Hoekman and Nicita (2009).
14. Yoshino (2008).
15. Li and Wilson (2009).
16. Helble, Shepherd and Wilson (2009).
17. Bhattacharya and Wolde (2010).
18. Cuñat and Melitz (2007), Depken and Sonora (2005), Levchenko (2007) and Ranjan and Lee (2007).