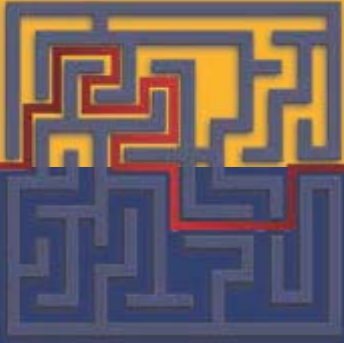# Implementing trade single windows in Singapore, Colombia and Azerbaijan

- Trade single window systems can cut trade times and costs by making information flows more efficient and streamlining trade procedures.
- Implementing a single window system involves many stakeholders and requires long-term commitment from government and business.
- Systems must fit the environment and level of development where they operate.
- Singapore's TradeNet system, in operation since 1989, has evolved into a highly integrated virtual platform.
- Colombia's Single Window for Foreign Trade, launched in 2005, has adopted a gradual approach, adding functions and integrating agencies over time.
- Azerbaijan has sought to learn from other economies while implementing its single window system.

An economy's competitiveness is driven by many factors, including how quickly, reliably and cost-effectively the private sector can trade goods. Today's manufacturers and agricultural producers operate in a global supply chain. Thus an efficient international trade system can increase economic opportunities and improve livelihoods—especially in poor economies with small domestic markets.

But in many parts of the world, international traders must spend a lot of time preparing and submitting information to government offices ranging from customs to port authorities, each with its own rules and form requirements. These reporting requirements are often confusing, overlapping and onerous. In Madagascar the government offices involved in trade span 350 kilometers, and hard copies of forms had to be submitted to each until an electronic platform introduced in 2011 transformed the document submission process and reduced delays (see the chapter on trading across borders).

A single window system can improve information flows by sharing needed information with all parties involved in trade, including private participants such as banks and insurance companies and public agencies such as immigration and vehicle registration authorities. The key concept for an effective system is to enable traders to submit standardized information and documents through a single gateway, eliminate redundant processes by traders and government agencies and improve coordination and cooperation between authorities.[1] Reducing multiple data submissions to different agencies helps minimize errors during data entry too.

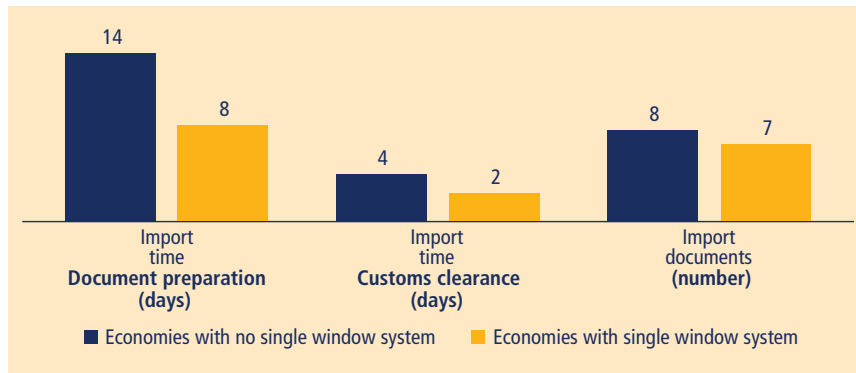Single window systems have other benefits. One that collects data systematically enables consignments to be categorized more easily based on the associated risk by allowing creation of trader profiles, limiting physical inspections to risky cargo and potentially making trade procedures more secure and efficient. By combining a portal where up-to-date information on tariffs and other legal and procedural requirements are available and by integrating a payment system, duties and other charges can be paid more quickly and accurately, raising government revenues.

Today 73 economies have single window systems of varying complexity.[2] Exporting and importing a standardized cargo container is faster in such economies. In addition, fewer documents are required for importing, but the impact is smaller than the impact on time—an average of 6.6 documents in economies with single window systems compared with 7.8 in those without—underscoring the point that single window systems are mainly making submission of information more efficient (figure 8.1).

Using a single window to lodge information can even fight corruption by reducing interactions between traders and authorities. And it can make the clearance process more predictable and enhance transparency. Among the 73 economies with single window systems, 86% make information on duties and tariffs publicly available, while only 54% of the other 110 economies measured by *Doing Business* do so.

Though a single window system brings considerable gains, implementation is a major undertaking involving many stakeholders and requiring long-term commitment from multiple players in government and business.[3] Implementation

FIGURE 8.1 Economies with single window systems spend less time preparing documents and clearing customs

Bar chart showing:
- Document preparation (days) — Import time: Economies with no single window system = 14; Economies with single window system = 8
- Customs clearance (days) — Import time: Economies with no single window system = 4; Economies with single window system = 2
- Import documents (number): Economies with no single window system = 8; Economies with single window system = 7

Legend: ■ Economies with no single window system   ■ Economies with single window system

Source: Doing Business database.

takes many years and might have to be done in phases. Though their overarching goals are the same, single window systems differ greatly, highlighting the need to adapt them to each economy—taking into account the computerization of users, internet connectivity and the capacity of implementing bodies.

This case study describes the experiences of Singapore, Colombia and Azerbaijan. In the late 1980s Singapore became one of the first economies to embrace the single window concept, and it has evolved into a highly integrated virtual system, recognized as global good practice. Colombia's single window was launched in 2005 and has also developed in stages. Today the system links 21 trade entities and is continuously adapting its system to make things more efficient for traders and government. Azerbaijan's single window is the newest covered in this chapter and provides a revealing contrast to Singapore's mature system. Azerbaijan launched its system in 2009 and so is still in the early stages of implementation. But the government is leveraging its position as a latecomer by learning from other economies.

By choosing 3 economies in different regions with different degrees of single window implementation, this case study aims to show the various approaches that governments take and the challenges encountered of pursuing effective single windows. The case study does not aim to promote a particular type of single window system nor endorse the experiences of these economies.

SINGAPORE

Singapore's single window for trade—TradeNet, which began operating in 1989—began as an electronic data interchange system that allows computer-to-computer exchange of structured trade messages between the government and members of Singapore's trading community.[4]

After experiencing a recession in the 1980s, Singapore's government established a high-level committee to review the weaknesses of the economy and develop strategies to improve economic competitiveness. One of the committee's recommendations was to increase the use of information technology in trade.

The government had previously established a 2-day standard for normal processing of trade documents. But traders wanted quicker turnaround for just-in-time inventory management and deemed that waiting 2 days for normal processing (which could extend to 4 days for permit approvals) was too long.

So the government embarked on a large-scale effort to streamline the regulatory processes involved in approving trade permits. Committees of senior government officials and business leaders were created to ensure sufficient backing for using technology to reengineer and improve trade regulations and processes.

From vision to implementation

Singapore's government created a steering committee for TradeNet to oversee the conceptualization of a national electronic data interchange system for trade declarations and permits. Three subcommittees—1 each for sea shipping, air shipping and government agencies—were then formed to improve exporting and importing processes, and to specify functional requirements and propose data standards. Before TradeNet some clearances were done manually and no overall computer system coordinated them. Every subcommittee developed profiles of essential trade documentation activities and cut the more than 20 forms used in international trade to a single online form for nearly all trade. This form was the core of the new computerized system.

The government created a private company to manage TradeNet, which in 1988 led to the formation of Singapore Network Services, now known as CrimsonLogic. Though funded by government agencies, the company is structured as a private, for-profit firm. The government reasoned that this approach would not require it to bear the cost of operating a nationwide network of infrastructure and services. Each account user pays $20 a month and less than $3 per transaction or permit. The first transaction on TradeNet was a shipping application submitted on January 1, 1989. By the end of that year TradeNet handled 45% of documentation for sea and air shipments in Singapore.

Overcoming obstacles

Early on, the main challenge was to convince users to switch to electronic trade declaration. Singapore adopted a phased approach to minimize the efforts involved in making the change. First it implemented electronic processing and approval of trade permit applications for noncontrolled and nondutiable goods, later extended to controlled and dutiable goods. In the initial phase the system was piloted on 50 users. Even after the system was extended, using it was voluntary for more than 2 years and did not become mandatory until 1991.

Singapore also launched a nationwide campaign to promote the system and smooth the transition to it. Even today, when the government rolls out major

changes to the system, it deploys mass marketing and communication programs to raise awareness and prepare users.

While promoting the new electronic system, the government recognized the challenges facing some businesses. Some companies were more computerized, so adjustments and burdens imposed by the new system differed. The government provided training and assistance for operations. Singapore Customs conducted courses, and public terminals were installed for small companies. And to encourage companies to switch, manual processing fees were raised to S$10 a document, while TradeNet users paid S$6.[5] Thanks to such initiatives, today TradeNet handles more than 30,000 declarations a day, processes 99% of permits in 10 minutes and receives all collections through interbank deductions.[6]

What's next?

Since 2007 Singapore has been pushing to extend aspects of TradeNet to commercial transactions in the trade community through TradeXchange. This system includes trade-finance transactions (for example, cargo insurance applications and supporting documents for factoring applications) and commercial documents (including commercial invoices and waybills). The government envisions achieving a more seamless flow of information along the supply chain. But as in other economies with similar initiatives—u-TradeHub in the Republic of Korea, the Digital Trade & Transportation Network in Hong Kong SAR, China—the system is yet to be embraced by the business world at large.

Singapore is an active member of the Association of Southeast Asian Nations (ASEAN), a regional body that has embraced the concept of single window systems and has an ambitious goal to establish an ASEAN-wide single window by 2015. Plans call for integrating members' national single windows so that a single submission of information suffices for all ASEAN members.

COLOMBIA

Colombia began developing its single window system for foreign trade—Ventanilla Unica de Comercio Exterior (VUCE) in Spanish—in the early 2000s.[7] After years of financial crises and economic slowdowns, in 2002 the new administration made modernizing public agencies and services a high priority. As part of a wide-ranging e-government initiative, the Ministry of Commerce, Industry and Tourism introduced the single window for foreign trade with the support of the Ministry of Information and Communications Technologies.

The push for new technology in the public sector came at a time when Colombia was becoming increasingly integrated with global trade markets. Negotiations for a free trade agreement with the United States began in 2003 and went into force in 2012, while other accords were negotiated with the European Union, Israel, Japan, the Republic of Korea and Turkey, among many others. The public and private sectors agreed on the need to address the bureaucratic, uncoordinated, inefficient nature of significant parts of the public administration. The government also wanted better information systems.

Many ministries and public agencies involved in foreign trade were working in isolation, sharing little or no information on trade procedures despite requiring essentially the same information from users and each other. Depending on the type of good exported or imported, traders had to visit and complete similar procedures at the different agencies in charge of issuing permits and approvals—such as the Colombian Agricultural Institute, National Institute for the Surveillance of Drugs and Food and Ministry of Commerce, Industry and Tourism. This led to duplicated processes, inefficient controls and reduced transparency in public administrations. For traders it increased delays and transactions costs.

After consulting with stakeholders, reviewing the process and identifying bottlenecks, Colombia's government established an action plan and created a task force to lead efforts to harmonize requirements, procedures and documents among the entities involved in foreign trade. That led to the creation of the single window for foreign trade, which became operational in early 2005.

Features and implementation

The single window connects 21 public agencies involved in foreign trade—mostly ministries and health and safety entities—and 3 private companies that provide e-signature certificates and legal information on registered traders. The single window links them with importers, exporters, customs agents and brokers through an online platform that allows users to request procedures, approvals, authorizations and other certifications needed to import and export goods. In addition, tax identification and business registration records are available to the agencies connected to the system.

The single window is being implemented in stages. The first involved the import module, which handled import registration requests and import licenses for certain products. By November 2006, after the module's gradual rollout, all such requests were made electronically. That same year the government introduced the export module for export authorizations. The third component, the single foreign trade form module, went online in 2008 and integrates registers of domestic producers and handles some export quota requests.

Existing laws and regulations offered the legal basis for using electronic signatures and payments, though implementation was not always easy. For example, some banks and companies were initially unprepared to conduct payments online.

In 2010 a fourth module of simultaneous inspection was launched. Key among its features is a system to facilitate exchange of information among control entities and anti-narcotics agencies so that inspections can be conducted simultaneously. The current scope is for containerized maritime exports.

From resistance to endorsement

At first, users and the officials in charge of processing requests resisted switching from the paper-based system. But their resistance eased thanks to the staged implementation of the modules, each featuring transition periods and training and outreach for all the parties involved. Officials also educated and trained users through conferences, workshops, official

communications and e-learning software. Moreover, the private sector tested electronic procedures through the single window before they were fully operational, making evident the advantages of the system from an early stage.

The single window has provided benefits to entities involved in trade, increasing efficiency and cutting times and costs. According to government sources, the system streamlined 135 procedures and 35 forms needed for importing into 1 step for traders, eliminating the need to visit agencies, reducing reliance on messenger services and minimizing the use of hard copies. The average response time has dropped by about 5 days for requests made at territorial offices that require approval from an agency linked to the single window.[8] In addition, it takes 30% less time to issue a license requested through the system.[9]

The system has enhanced the safety and integrity of trade transactions and generated more reliable data on foreign trade procedures and volumes for customs and other government agencies. There have also been gains for the entities linked to the single window for foreign trade. Besides better coordination and lower costs, the system has enabled agencies to expand their geographic reach and increase users. Updated equipment and electronic systems are helping agencies improve internal processes as well—a benefit not originally anticipated. The system has increased use of e-payment systems and e-signatures for procedures that go beyond foreign trade. According to an index that assesses e-government, Colombia ranks 43rd in the world, second only to Chile among Latin American and Caribbean economies.[10]

A work in progress

Despite all the improvements, Colombia's move toward a fully integrated single window system is still a work in progress, and challenges remain. The speeds at which the different entities linked to the single window have implemented electronic and streamlined procedures internally have varied. For example, the Colombian National Tax and Customs Authority (DIAN) is electronically linked to the single window but handles declarations

for export and import through a separate system. Furthermore, though the single window allows traders in Colombia to conduct processes related to approvals and authorizations electronically, reliance on paper and manual procedures during importing and exporting persists, creating processing delays that slow the flow of trade transactions.

The government recognizes these constraints and is examining how to ensure that all agencies involved in trade reach the desired levels of efficiency. A 2012 decree established time limits for the agencies linked to the single window. Between 2012 and early 2013 that decree helped to cut response times for import registration requests at the Ministry of Commerce, Industry and Tourism by more than 95% (figure 8.2).

In addition, Colombia's single window system is being reengineered to optimize business processes. In addition to enhancing data management, the effort aims to standardize the information in line with international standards. As a result some functions of the single window were made inactive in late 2012 and will not become operational again until 2014.

The Colombian government is working to include new functionalities for the 4th module of simultaneous inspection systems for exports and to develop a similar system for imports. A risk management module for reviewing and approving import requests according to established criteria is planned for launch in 2014.

Furthermore, a logistic module to link public and private users to facilitate the information exchange at ports and airports will be developed.

AZERBAIJAN

The government of Azerbaijan has long considered establishing a single window system a key step toward modernizing customs services and improving the trade environment. The desire for a single window has been further motivated by the need to simplify and expedite exchanges of information between the public and private sectors and to increase transparency in trade.[11] With these goals in mind, in 2008 the president of Azerbaijan made the State Customs Committee the lead authority for controlling goods and transportation crossing state borders.[12]

Choosing from global good practices

As a first step, the State Customs Committee analyzed the process for inspecting goods and transportation passing through border checkpoints. It also studied global good practices for implementing a single window and researched international norms and standards.

The government considered 3 types of common single windows. The first is based on the principle of a single authority, where customs authorities are responsible for exercising or coordinating all border control functions for other

FIGURE 8.2 Response times for import registration requests plummeted at Colombia's Ministry of Commerce, Industry and Tourism between 2012 and early 2013
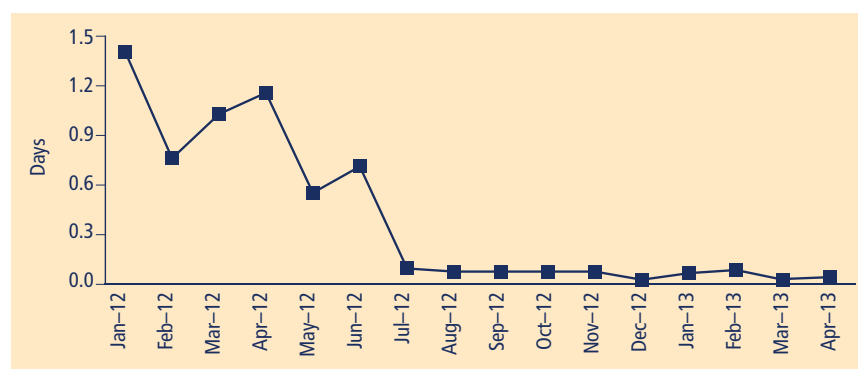
Source: Colombia Ministry of Commerce, Industry and Tourism.

agencies. The Netherlands and Sweden use such a system. The second type is a single system, which collects standardized data from traders, then processes and distributes it to all agencies involved in international trade. The United States uses such a system. The third type is an automated system, where traders submit a single electronic declaration to relevant authorities for processing and approvals and these agencies send users electronic releases and approvals. Mauritius and Singapore use this type of single window.[13]

Azerbaijan chose to implement the single authority model, which involved transferring certain responsibilities from relevant agencies to the Customs Committee.

Implementation

Before the introduction of single window the same documents had to be submitted multiple times to various authorities operating at the border. Each authority (such as veterinary, phytosanitary and quarantine agencies) relied on their local databases, which were not connected electronically. Such lack of coordination hindered control and coordination at the border as well as caused delays for the traders.

To prepare for the transition to the single window, the Customs Committee established a commission to implement the new system. The government identified the main authorities to be integrated into the single window system as the Customs Committee, Ministry of Agriculture, Ministry of Health, Ministry of Internal Affairs, Ministry of Taxes, Ministry of Transport, Central Bank, State Road Police, State Committee on Standardization, Metrology and Patents, a state sea administration and a state nuclear and radiological agency under the Ministry of Emergency Situations. Among the challenges for the State Customs Committee was to prepare its staff to work with the new system. The government improved the staffing of local customs authorities and developed hardware and software for the system.[14]

Upon the single window implementation, the Customs Committee became responsible for controlling and checking all required permits and certificates for goods crossing the borders. While traders no longer interact directly with relevant agencies (veterinary, phytosanitary and quarantine agencies), these agencies still monitor the clearances performed by customs on their behalf. This approach has helped to eliminate duplication of control function at the border and has simplified document processing.

Introduction of the single window has also led to the development of a central database used by various government authorities. It gathers information on the types of goods and transportation crossing the border, the exchange of electronic certificates among relevant ministries, pre-arrival information for declared goods and pre-arrival notices for transportation crossing the border, reports on violations of customs rules, financial reports of traders and reports on savings in foreign currency.[15]

Azerbaijan's single window system is fully financed by the government. As a first step, an automated customs clearance system was implemented at inland border crossings on January 1, 2009 and became available to users free of charge. Implementation continued through 2011 in Baku and Sumgayit.[16] In addition, an article on the single window was included in the new customs code that entered into force on January 1, 2012. It establishes that 29 customs checkpoints at the state border are to follow the single window principle—meaning that the single window covers all of the country's customs posts.[17]

Building on initial successes

The efforts to implement a single window were well received by the private sector, and even in its initial phases the single window system helped reduce waiting times for customs procedures at the border from 2 to 3 hours to 15 to 20 minutes.[18]

Most small and medium-size enterprises, however, still physically submit customs declarations and supporting documents for customs clearance. In May 2011 the president signed a decree requiring government agencies to introduce electronic services as a first priority.[19] Plans are to mainstream electronic submission of all documents for customs clearance, introduce e-signatures and e-payments and integrate information systems of other state agencies such as the railway, airports and Caspian seaports by 2016.

LESSONS

Single window systems can benefit the entire trading community, public and private, by streamlining complex systems of

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BOX 8.1 **United Nations recommendations for establishing trade single window systems**

The UN has identified key factors for successful implementation of single windows:
- Political will
- Strong lead agency
- Partnership between government and trade community
- Establishment of clear project boundaries and objectives
- User friendliness and accessibility
- Enabling legal environment
- International standards and recommendations
- Identification of possible obstacles
- Appropriate financial model for the system
- Communications, promotion and marketing

Source: UN/CEFACT 2005.

intertwined and duplicative data submission. The need to make trade more efficient is greater in a globalized economy, where fast and cheap delivery of goods is essential. Governments considering the implementation of such systems can look to other economies to learn what has worked well and what had to be overcome for a smooth transition to a new system.

Though the overarching principles and motivations for implementing single window systems are the same, the systems in Azerbaijan, Colombia and Singapore differ enormously. The maturity and level of integration of these systems vary, partly because of differences in when they started being implemented. As important, these economies have learned from their peers and developed systems adapted to the environment and level of development where they operate.

Still, Azerbaijan, Colombia and Singapore offer some common lessons. To successfully implement single window systems economies must do so through strong political will and commitment. Moreover, to sustain momentum for reform over many years and move things forward, it is crucial to have a lead agency as well as collaboration between government and the trade community (box 8.1).

A single window system is a long-term commitment

Singapore's single window system is more than 20 years old and still evolving. Yet there are many nonperforming single windows around the world. A single window is analogous to a complex piece of machinery with many moving parts: it only needs 1 faulty part to derail the entire system.[20] Perhaps some projects were too ambitious or expensive, lacked high-level government commitment or funding, or were poorly managed. As seen in Colombia, some governments take an incremental approach—adding functions and integrating more entities over time.

Overcoming behavioral hurdles requires persistence

The 3 economies studied show that moving from a paper-based to an electronic system requires behavioral changes among users in both government and the trading community. People used to writing information in a paper-based system must be trained to enter it on a computer, and may feel that it takes longer to do so. Moreover, the switch might require additional investments, such as computer purchases and internet connections. For developing economies adequate electricity supply might also be a large constraint. Thus the authority in charge of implementation must have the patience and persistence to ensure sufficient time, training and outreach.

Collaboration with the private sector is essential

The business community must be fully on board with the move to a single window system, and its needs properly addressed. Businesses must be involved from the design stage through implementation. Moreover, they should have opportunities to provide feedback. Colombia used satisfaction surveys to identify issues, and Singapore provided facilities for online inquiries to maintain open, positive relations between the government and users of its single window system.

Legal basis must be established

Single window systems require changes to procedures in customs agencies and affect many other authorities. To ensure a smooth transition, a clear and comprehensive legal basis must be established for implementation of the new system.

NOTES

This case study was written by Mikiko Imai Ollison, Iryna Bilotserkivska and Robert Murillo.

1. UN/CEFACT 2005.
2. *Doing Business* database, based on information from local experts. Eighteen have a single window system that links relevant government agencies electronically, 55 a system that does so partially.
3. UN/CEFACT 2005.
4. This section is based on Koh Tat Tsen 2010; UNECE 2010; Crown Agents 2012, and input from Singapore Customs.
5. Neo and Long 1994.
6. All fees, taxes and duties are computed automatically and deducted from the traders' bank accounts.
7. This section is based on WTO 2011; Crown Agents 2012; Fuentes 2010; Rodriguez 2011; Ulloa Urritia and Constain 2012; UNECE 2009.
8. Ministerio de Comunicaciones, Republica de Colombia 2008.
9. World Bank Group 2013a.
10. UNDESA 2012.
11. Customs Committee of the Republic of Azerbaijan. 2007. "Decree of the President of Azerbaijan #1925 from February 1, 2007 establishing a State program on development of customs system in the Republic of Azerbaijan during 2007–2011." Available at http://www.customs.gov.az/ru/abr11.html
12. Customs Committee of the Republic of Azerbaijan. 2008. "Decree of the President of Azerbaijan # 12 from November 11, 2008 on the implementation of the principle of single window when checking goods and methods of transportation crossing the borders of the Republic of Azerbaijan
13. Mirzoev 2009.
14. State Customs Committee of the Republic of Azerbaijan, 2013.
15. UNECE 2011.
16. Ahundov, A. "Azerbaijan Customs Extends the Application of the Single Window Principal."Trend, September 12, 2011, http://www.trend.az/capital/business/1930232.html.
17. Customs Code of the Republic of Azerbaijan.
18. State Customs Committee of the Republic of Azerbaijan. 2013. These efforts were recognized in the *Doing Business 2010* report.
19. Customs Committee of the Republic of Azerbaijan. 2011. "Decree of the President of the Republic of Azerbaijan # 429 from May 23, 2011 on some measures in the area of electronic services provided by the government."
20. UNESCWA 2011.