

Enhancing Trade Facilitation, Logistics and Connectivity: challenges and recommendations

KEY MESSAGES

Colombia's trade facilitation, logistics and connectivity can be improved. The trade facilitation development agenda still lacks a comprehensive performance measurement framework, but international benchmark indicates that Colombia's performance is behind its regional peers and away of top performers. Colombia has initiated important trade facilitation reforms, but projects are not coordinated, and synergies not fully exploited. The Single Window programme, a major initiative, has achieved important milestones, but it has not yet completely reengineered import and export business processes, to harmonize documentary and data requirements with international standards and business practices, and Customs and border agencies systems remain not integrated in the platform. Coordination between Customs and border agencies is still limited, and they have not yet adopted more advanced cooperative arrangements, like joint risk management and targeting centers. Customs and border agencies need to complement border inspections with coordinated actions and controls beyond the borders, improving respective risk management capacities and compliance management strategies. The various projects initiated have specific challenges to achieve more meaningful impact, as examples: the Authorized Economic Operator programme, other major initiative, needs to increase the number of certified importers and exporters and the share of trade processed by the programme; the prior arrival processing and release is still underutilized; the clearance process for postal and expedited shipments needs to be automated, with exploitation of alternative models for tax collection, to support cross-border e-commerce development.

The National Trade Facilitation Committee (NTFC) should become the main platform for the coordination and design of trade facilitation reforms, mobilizing the collective support of all stakeholders and providing a sense of continuity and connectedness of projects. A comprehensive Trade Facilitation plan¹ should be developed to articulate objectives, targets and milestones, to set priorities and sequence multi-year reforms and projects, and address the following needs already identified: i. advance the Single Window programme through comprehensive import and export business process reengineering, and exploring the opportunities of the recently approved Tax and Customs Modernization programme and the synergies with port community and logistic operators systems; ii. promotion of cooperative arrangements between Customs and other border agencies, including the establishment of national targeting center and of local trade facilitation committees; iii. Customs and border agencies to develop comprehensive risk-based compliance strategies to better coordinate actions and controls beyond borders; iv. expand usage of prior arrival processing and release; v. increase number of Authorized Economic Operators and expand the types of operators that can be certified; vi. automate the postal and expedite shipment processes and explore alternative models for tax collection; vii. adopt a comprehensive framework for performance measurement and monitoring, and for assessing impact of reforms.

Colombia has notoriously improved in global rankings that benchmark logistic performance. In addition to important investments, institutional, regulatory, governance and policy reform have cemented the basis for this improvement. This has started with a systematic effort to measure the performance of the sector

¹ The framework of the WTO Trade Facilitation Agreement could be used as reference.

and derive key strategic guidelines later mainstreamed at the highest levels of policymaking and formalized as national policies through the CONPES framework.

Colombia, while seemingly in a better position as compared to ten years ago, has still many gaps to cover to deepen reforms in the sector. Technology use is limited, labor workforce capacities are not strong, and business practices are still immature, where SMEs are still lagging in terms of access to quality services. Costs remain high and service quality is in need of improvement.

Main policy directions are to continue the regulatory reform efforts, increase capacity building, IT use, and absorption capacities of SMEs in logistics skills, as well as a more skilled work force for the sector. Infrastructure may be developed to incentivize a more balanced transport matrix to favor intermodality.

INTRODUCTION

In recent decades, trade has been recognized as a driver of economic diversification, resilience and growth, particularly for greater participation in regional and global value chains, and for business development and jobs creation. Trade and competitiveness development are associated with multiple complementary reforms, as on trade policies to expand market access and on strategies to improve productivity, but Policy makers have increasingly looked at two specific fundamental areas of reforms to enhance trade performance, namely:

- (i) *transport and connectivity reforms* including investments in logistics infrastructure, sector and regulatory reform, and business and investment climate initiatives; and
- (ii) *trade facilitation and border management reforms initiatives* including regulatory and procedural harmonization in line with international standards, automation of key procedures, adoption of modern compliance management techniques based on intelligence and risk management, complementing transactional controls at borders with audit-based monitoring schemes of operators, and increased transparency and institutional reform of Customs and other cross-border regulatory agencies.

Border management reforms and trade facilitation initiatives have received significant attention in recent years and led to trade facilitation being included as part of the World Trade Organization's Doha Development Agenda. Since the Trade Facilitation Agreement entered into force, many countries have prioritized the reform and modernization of their border management regimes, an effort that is having a tangible, positive impact on trade performance. Efforts to eliminate unnecessary documentary requirements, reduce the number of unnecessary physical inspections, and to automate manual processes are resulting in major reductions in the time and cost to trade, especially for small- and medium-sized enterprises (SMEs).

Colombia's trade facilitation can be improved. Trading across borders is worse in Colombia than among its regional peers, but it is still behind its regional peers and away of top performers (see Annex I - Brief Overview of Colombia Trade Facilitation Performance Benchmarks).

A decade ago, logistics performance was identified as one of the key bottlenecks constraining external trade and the modernization of supply chains. In 2007, Colombia lagged significantly in virtually every core aspect of logistics, as measured by the LPI (Logistics performance Index). The country ranked 107th overall and was the second worst performer among a group of 11 Latin American countries – only

surpassing Bolivia. In fact, out of the six pillars of the LPI (border agencies, infrastructure, international shipments, competence and quality of services, timeliness, tracking and tracing), Colombia fared very poorly in all but two (see Annex II - Figure 3 to Figure 8).

To address these gaps, the government of Colombia embarked on an ambitious program to improve connectivity and logistics services quality. A National Logistics Plan² was endorsed by the government in 2008, establishing key strategic policy areas for development, concentrated in: (i) logistics corridors; (ii) trade facilitation; (iii) institutional environment; (iv) ITC use in logistics; (v) quality in logistics services. In the aftermath, substantial public resources and initiatives were directed to expand supporting infrastructure, by means of upgrading of road, rail, port, waterway and airport infrastructure.

Since then, logistics performance benchmarks in Colombia have improved. Between 2007 and 2018, Colombia's logistics performance as measured by LPI (Logistics Performance Index) advanced vis-a-vis most peers in Latin America (see Annex II - Figure 2). In over a decade, Colombia climbed to the 58th place, landing after Chile (34th), Mexico (51st) and Brazil (56th). While these improvements are commendable, different "pillars" explaining this growth have, nonetheless, advanced at different pace – some of them still underperforming – as is the case of shipment timeliness, which is a central concept in modern supply chain management.

Additional efforts were made to enhance governance and policymaking mechanisms, and catalyze soft and hard interventions, as a tool to deepen sector reforms. Two National Logistics Surveys were conducted in 2015 and 2018. Its major findings were instrumental to define new key policy directions, reflected in a new National Logistics Plan³ (NLP) updated in early 2020. Basically, the new NLP set an overarching vision for 2030, where Colombia is expected to become a logistics regional powerhouse, driven by a reduction in trade costs and times. This will be achieved by intervening in three fronts: (i) improved intermodality, both in infrastructure and services, and; (ii) improved agility and facilitation of trade processes, by adopting trade facilitation tools and improved infrastructure in key cross-border nodes. Furthermore, a cross-cutting pillar would support actions along three areas: (i) boosting institutions; (ii) improving the use of information for logistics; (iii) strengthening human capital.

The government of Colombia requested the World Bank support to produce a Note with policy recommendations to improve logistic, connectivity, and trade facilitation reforms, based on international good practices and standards. On June 2020, the government launched the "Colombia Internationalization Mission", aiming to contribute to the adjustment and implementation of Colombia's public policy of internationalization, as well as to identify the policies the country must execute and adjust in the short, medium and long term, in order to further integrate the Country into the global economy.

² Documento CONPES 3547, Política Nacional Logística, Bogotá, 2008.

³ Documento CONPES 3582, "Política Nacional Logística", Bogotá, Enero de 2020.

KEY CHALLENGES

TRADE FACILITATION

Lack of a comprehensive Trade Facilitation Development plan

Modern and efficient border management that facilitates trade typically follow a set of key principles and practices already incorporated in global standards and recognized as best practices by international organizations, such as the World Trade Organization (Trade Facilitation Agreement) or the World Customs Organization (Revised Kyoto Convention, SAFE Framework of Standards, among others).

Extensive deployment of information and communication technologies (ICT), business processes reengineering and automation based on simplification of documentary requirements and data harmonization, and the exploitation of innovations and new technologies (e.g. non-intrusive inspections equipment, tracking and tracing solutions, etc.), have deeply transformed the way borders are managed over recent decades.

Nevertheless, not all relevant developments are attributed to ICT or other technologies and a number of important factors derive from the evolution of Customs and border management practices, among others: the adoption of intelligence-led risk management as a fundamental pillar for compliance management; implementation of audit-based controls, regular monitoring and compliance reviews, and investigations or enforcement operations to complement traditional transactional controls applied at borders; adoption of compliance strategies that focus not only on non-compliant operators but also proactively identify and recognize compliant operators, differentiating treatment accordingly; coordinated border management, based on cooperative arrangements both at national level, engaging all border agencies involved, as well as at international level, through mutual recognition of controls, exchange of information and interoperability; and close engagement and partnerships with the private sector.

Colombia has initiated important reforms to improve trade facilitation, but projects are not coordinated, and synergies not fully exploited. The trade facilitation agenda in Colombia includes relevant initiatives, such as the implementation of the National Trade Single Window (VUCE)⁴; the Authorized Economic Operator (AEO) programme; the adoption of risk management by cross-border regulatory agencies; the Tax and Customs modernization programme, expected to renew organizational and technological platform; the improvement of postal and expedite shipments process, as articulated by the recently launched National e-Commerce Plan, just to mention a few. Since its establishment, the National Trade Facilitation Committee, through the dialogue with private sector, has identified 358 actions to facilitate trade, out of which 84% (302) are implemented or the implementation has started. These developments evolved independently, without a clear strategic direction and assessment of potential synergies involved (as examples: the implementation of AEO Programme has profound implications for risk and compliance management solutions and for future business process reengineering and

⁴ *Ventanilla Única de Comercio Exterior.*

automation; non-intrusive inspection technology can be applied considering cooperative arrangements for the benefit of Customs and all other border agencies). Colombia has issued different public policies⁵ that address specific issues related to the trade facilitation agenda, but the Country still lacks an overarching plan or road map, with clear articulation of objectives and vision, compilation of initiatives and indication of their complementarities, with publication of implementation timelines, monitoring mechanism and performance and impact evaluation.

Need to advance the Single Window development agenda, based on comprehensive import and export processes reengineering to harmonize data requirements and streamline procedures

Despite the progress of the single window programme, Colombia has not yet implemented a comprehensive import and export business process reengineering to simplify and harmonize data requirements and streamline procedures.

Since 2003, the Government has been trying to implement policies for streamlining border procedures, as part of the VUCE programme⁶. It has achieved important milestones, such as the integration of the processes for licenses, permits, certificates and authorizations (LPCO), and the implementation of simultaneous inspections on export cargo (fully implemented on seaports and partially implemented on airports).

Nevertheless, Colombia Customs management is based on fragmented and outdated ICT systems, with low integration and data management. Despite efforts to improve performance over the years, the Administration faces persistent structural challenges and deficiencies. On June 2020, the National Council of Economic and Social Policy (CONPES) authorized the National Tax and Customs Directorate (DIAN) to negotiate a credit of up to US\$ 250 million with the Inter-American Development Bank (IADB) to finance a Modernization Programme⁷.

The single window developed interoperates with different platforms, but Customs and border agencies management systems are not yet integrated, demanding traders to access multiple platforms and comply with multiple requirements in order to clear their operations. Single window development plans includes enhancing interoperability with existing Customs and border agencies technological platforms, expansion of risk management solution for LPCO processes, redesign of the module to manage simultaneous inspection, and development of international interoperability. The single window project should consider import and export comprehensive business process mapping and reengineering, in order to harmonize data requirements and develop electronic documents. The recently approved Tax and Customs modernization programme is a great opportunity to explore more in-depth integration between Customs management systems and VUCE.

Limited cooperation and coordination between Customs and border agencies involved in the clearance process

Inter-agency coordination is normally a very challenging development objective. Border coordination is a central tenet of the WTO TFA, and clearly outlined in Article 8 (Border Agency Cooperation) and in Article

⁵ See CONPES 3469, 3528, 3805, 3993 and 4012.

⁶ See CONPES 3469, from April 2007.

⁷ See CONPES 3993: <https://colaboracion.dnp.gov.co/CDT/Conpes/Econ%C3%B3micos/3993.pdf>

23 (Institutional Arrangements), which calls for the establishment of a national committee on trade facilitation “to facilitate both domestic coordination and implementation of the provisions” of the TFA. It usually requires strong political support, commitment, and resilience to overcome resistances, but it is the practice with highest potential to transform the management of borders and impact trade facilitation performance, particularly when the agencies achieve a whole-of-government approach for risk management. Coordination begins with assessing existing formalities and documentation requirements among border agencies. Deeper coordination can then be codified in inter-agency Memoranda of Understandings (MOUs) and related Service Level Agreements (SLAs) among border agencies. These agreements can then be put into practice through actions such as co-locating officials at borders and, where possible, integrating and streamlining procedures, such as moving towards joint inspections. The journey towards a fully integrated system begins with building national consensus and establishing the practical mechanisms for inter-agency coordination and cooperation.

The risk management systems implemented by Customs and border agencies are not exploring the synergies and benefits of an enhanced inter-agency cooperation arrangement. The National Trade Single Window (VUCE) programme has launched a new project to develop an Integrated Risk Management System⁸ applying machine learning and artificial intelligence, based on the interoperability of existing platforms. Beyond the interoperability of systems, a whole-of-government approach for border controls, exploring more in-depth inter-agency cooperative arrangements, has the potential to improve exchange of information and intelligence on traders, goods, manufacturers and supply chains, to enrich the institutions’ knowledge on the international and domestic markets, to promote joint enforcement and control actions and sharing of results, and to deploy more efficiently resources available at each agency. More advanced economies, and particularly top performers on trade facilitation, have implemented or are considering implementation of targeting centers for Customs and border agencies to coordinate their operations, both at national and local levels.

Absence of compliance management strategies to underpin risk management systems and implement controls and actions beyond the borders

A key requirement to maximize trade facilitation performance is the effective integration of risk management with border management, balancing administrative controls of Customs and other border agencies intervening on the clearance process. Modern border compliance management approach encourages administrations to focus on high-risks threats and ensure minimal intervention in low-risks operations; to focus on both noncompliant and compliant operators, offering clear benefits for compliers; to gradually replace physical inspections at borders by management of data and information and prior arrival and post clearance audits and controls⁹.

A major principle to implement a robust and sustainable risk-based compliance management solution is to focus the development agenda on improving Customs and other border agencies capacities, in a balanced manner, for:

⁸ *Sistema Integral de Gestión de Riesgos (SIGR)*. The project is currently drafting models for the Memorandum of Understanding for data exchange and interoperability.

⁹ For further information, see World Bank Border Modernization Handbook, Chapter 6 “Core Border Management Disciplines: risk based compliance management”.

- (i) enforcing noncompliant operators (e.g. enhance intelligence through better data analysis, collection of inspections and audits results reports to feedback risk management systems, exchange of information with other Customs and border agencies or with other relevant national regulatory and enforcement agencies (e.g. Financial Intelligence Unit, Police and Tax Authorities); improve investigation capacity; and apply adequate persuasive measures and sanctions, including criminal prosecution, when appropriate); and
- (ii) increasing voluntary compliance by simplifying procedures, engaging private sector to assume shared responsibility for compliance management with programmes like the Authorized Economic Operators, ensuring transparency, providing clear guidelines and information, offering education and awareness programmes, etc.

Customs and other border agencies (ICA, INVIMA and Anti-Narcotics Police) have implemented risk management solutions for targeting goods for inspections¹⁰, but they still need to develop comprehensive compliance management strategies to underpin and further develop their risk management capacities and to coordinate actions and controls beyond the borders.

Colombia Customs management system contains risk engines that target cargo and declarations to submit to border inspections, and the administration also deploys post clearance audit controls and enforcement actions (by the Fiscal Police), though coordination with the risk management unit is still based on manual procedures. The administration needs to strengthen the monitoring and evaluation of results and enhance the feedback process, to improve data analytics, intelligence and investigations. The administration needs to develop a more comprehensive risk-based compliance management strategy to coordinate the various actions and controls according to the compliance levels and risks assessed¹¹. Evaluation and feedback mechanisms are requirements for successful adoption of more advanced and sophisticated technological solutions, such as machine learning and artificial intelligence.

As an example, in order to authorize consolidated payment for multiple transactions, an important trade facilitation measure¹², Customs legitimately requires the provision of guarantees. However, the number of cases that guarantees are executed is very low and the constitution of guarantees entails a significant financial and administrative burden to traders and ultimately limits the application and the impact of the trade facilitation measure. The performance of the guarantee system could be improved by more efficient risk management process that consider the compliance records of payments, with implementation of measures to strengthen administrative capacity for tax recovery (for instance, suspension of the

¹⁰ The risk management solutions are applied on ordinary imports and do not cover all clearance processes, like postal and express shipments.

¹¹ The actions and controls to improve compliance are diverse: redesign processes and procedures to better align with business practices; review formalities to facilitate compliance (simplification of requirements); disseminate manuals and guidelines; provide guidance and orientation to operators; issue notifications and warnings; implement voluntary or mandatory education programmes; implement assisted compliance; implement regular remote monitoring and compliance reviews; conduct audits and inspections at trader's premises; conduct investigations; apply persuasive measures and sanctions, including criminal prosecution when appropriate

¹² The Article 7.3 of WTO TFA recognizes deferred payment of duties, taxes, fees, and charges as a relevant trade facilitation measure (see https://www.wto.org/english/docs_e/legal_e/tfa-nov14_e.htm). The guarantees are waived for Authorized Economic Operators.

authorization for consolidated payment and eventual retention of cargo in a subsequent operation). These measures would enable gradual reduction of the requirement to limit the provision of guarantees to just high-risk cases (eg. traders without compliance records or unknown information on financial capacity).

The Colombian Agriculture and Livestock Institute (ICA)¹³ also implemented a risk profile engine within its clearance management system (SISPAP) in 2017, deploying probabilistic models that consider risks associated with products and sanitary conditions of country of origin, and historical compliance records. Similarly, the National Food and Drug Surveillance Institute (INVIMA) implemented in 2018 a risk management system¹⁴ for targeting imports, based on factors such as the country of origin, manufacturer's and trader's track records of compliance and health alerts. Both institutions are in the initial stages of the risk management development journey and would benefit from comprehensive compliance management strategies, complementing and coordinating border inspections with other controls and actions beyond the borders. The Antinarcotic Police has implemented a centralized monitoring center that receives and analyzes data from exports to target shipments for inspections¹⁵.

Underutilization of prior arrival processing and release

High performing Customs administrations have implemented efficient systems for pre-arrival processing and expedited or immediate release upon arrival. According to the WTO TFA's Article 7 on release and clearance of goods, the pre-arrival processing calls for the "adoption or maintenance of procedures allowing for the submission of import documentation and other required information, including manifests, in order to begin processing prior to the arrival of goods with a view to expediting the release of goods upon arrival". The measure offers a win-win situation for all stakeholders at the border involved in the logistics chain: i) by providing predictability to shippers on the duration of customs clearance and eventually the immediate release upon arrival for low risk cargo; ii) by increasing the efficiency of border agencies' risk management through early identification of riskier cargo and definition of an intervention strategy; and iii) by increasing the productivity of port operators, as they are able to plan in advance cargo movements, inspections and warehousing in order to optimize the management and use of port facilities and equipment. Intervention to inspect and examine cargo is by exception and Customs and border agencies control only a small percentage of high-risk cargo and the rest of the cargo is released at the border immediately upon arrival.

Colombia offers the possibility of Prior to Arrival Import Declaration (PAID), but the measure remains underutilized. The latest Time Release Study published by Colombia Customs (2019) informs that about 14% of air cargo declarations and 13% of maritime cargo declarations are processed using PAID procedures. Nevertheless, the pre-clearance procedure is *de facto* not applied to air cargo, as even though

¹³ See ICA Resolution 8071: https://www.ica.gov.co/servicios_linea/sispap_principal/documentos/resolucion-00008071-del-7-de-junio-de-2017-perfila.aspx

¹⁴ The system was developed with the support of the Global Alliance for Trade Facilitation and enabled INVIMA to reduce over 35% of border inspections of food and beverage. The administration plans to expand the system to cover medicines and medical devices.

¹⁵ The team did not have access to the statistics on the share of inspections conducted on exports. Anecdotal information indicates that over 25% of consignments are inspected, which is a high number in relation to other countries.

advanced reception of data occurs, declarations are only processed after the shipment has physically arrived. One of the pending challenges is that the data model for the air cargo manifest used by the Customs system is not aligned with international standards and business practices, obliging carriers to manually provide the data to the system. Other important factor is that the PAID solution in Colombia was firstly applied as a mandatory measure for processing goods considered sensitive to commercial fraud and smuggling (textile, garment, footwear and steel), with the perspective of enhancing controls and not to expedite release or to facilitate the process. Only recently the Administration has started to promote PAID as part of the trade facilitation agenda, addressing some initial constraints (enabling self-correction for unintended errors on declarations), or waiving guarantees for Authorized Operators when adopting consolidated payment, an important measures to ease tax self-assessment and payment, to eliminate the need of disbursement before arrival of goods or to process restitution in cases of discrepancies identified after cargo arrival. Even with some constraints, the study published by Customs confirms the significant advantages of the release times for pre-arrival processing (16h for air cargo and 2,9 days for maritime cargo) in comparison with standard processes (9,3 days for air cargo and 8,6 for maritime cargo).

Need to further engage private sector in the design and piloting of trade facilitation reforms

Colombia has a well-functioning private sector consultative mechanism with the National Trade Facilitation Committee (NTFC) but should institutionalize local committees for trade facilitation coordination and further engage private sector in the reforms. The NTFC was established on August 2018 with participation of public (8 entities) and private (6 entities) sectors and has implemented 6 regional dialogue fora (Cartagena, Barranquilla, Santa Marta, Buenaventura and El Dorado Airport) along with sectorial forums focused on products and supply chains¹⁶. The local committees at relevant ports, airport and border units, should be institutionalized as permanent structures to support operational coordination of Customs and border agencies, the implementation of trade facilitation policies and reform initiatives, to deepen dialogue with importers, exporters, logistics and service providers, and to identify constraints that could be addressed locally.

To ensure effective implementation and maximum utility of trade facilitation platforms and initiatives, including single window systems, the trade community needs to be sensitized to any changes to regulatory processes and procedures, and to be informed of and educated on the functionalities of the system. The automation of business processes and development of IT systems should be preceded by an in-depth assessment of the level of alignment of proposed solutions with common business practices. As more Customs and Border agencies controls are based on common business practices and procedures, relying on information readily available to traders or operators, the accuracy of data and compliance with requirements will be higher, facilitating the process. Supporting information, guides, and FAQs should be developed, regularly updated and made easily available to the trading community. Customs and Border agencies should also issue questions and answers (Q&A) of the main components of any new regime. Colombia has implemented prior public consultation before new regulations and procedures enter into

¹⁶ The Sectorial forums focus on supply chains of products (coffee, flowers, banana, avocados, automobile spare parts, pharmaceuticals, among others) and support streamlining control procedures conducted by cross-border regulatory agencies (antinarctic police, Invima, ICA and Customs).

force, but the engagement of private sector in designing and piloting solutions should be extended to all reform projects and initiatives, in a transparent and consistent manner.

Authorized Economic Operator programme need to be expanded, both with the type of operators and with the increase of importers and exporters certified. Development plans, performance measurement and impact evaluation framework should be prepared and published.

The WTO TFA Article 7.7 on Trade Facilitation Measures for Authorized Operators makes provision for ‘Authorized Operators’ who meet a set of criteria, which may include appropriate record of compliance with Customs and other related regulations, a system of managing records for necessary internal control, financial solvency and supply chain security. The WCO SAFE Framework of Standards to Secure and Facilitate Global Trade (2005) also establishes standards for the ‘Authorized Economic Operator’ (AEO). Both the WCO and WTO standards follow similar principles of modern border compliance management approach, based on partnership and collaboration with private sector to incentive voluntary compliance and offer rewards and benefits. The main difference of the standards is that the WCO AEO Concept requires the programs to incorporate specific requirements related to supply chain security, where the WTO Authorized Operator concept refers more to the broader border compliance requirements and trade facilitation expectations. The authorized operators programmes have become important initiatives to drive cultural changes on the way Customs and border agencies relate with private sector and to promote shared responsibility on compliance management. Top trade facilitation performance economies are exploring the authorized operators programmes as the instrument to gradually shift traditional transactional controls at borders by regular and systemic compliance monitoring, based on data and information management and on enhanced communications with operators.

Colombia’s Authorized Economic Operator program is recognized as an important trade facilitation instrument with some advanced features, such as the coordinated certification process by Customs and other border agencies. Though the programme continues to evolve¹⁷, it has not comprehensive development plans published, with articulation of future benefits to be incorporated, targets for increasing number of certified companies or for expected share of trade to be covered, along with performance measurement and impact evaluation framework. The Colombian AEO Programme, was launched in 2011 and currently has 215 companies registered. It has an advanced management approach based on the coordination of Customs and other border agencies (ICA, INVIMA, and Antinarcotic Police). Mutual Recognition Agreements have been negotiated with the Pacific Alliance (Mexico, Peru, Chile), Andean Community (Peru, Ecuador, Bolivia) and Costa Rica. The programme was initially open to importers, exporters and customs brokers and was recently extended to port terminals and operators. Although the programme contemplates the incorporation of new types of operators (carriers, free trade zones and express shipment and postal operators), it has not published yet the development plans with the implementation timelines and milestones, for these or other development goals. Similarly, though the programme provides benefits to authorized operators, it should consider identification and publication of key performance indicators and an assessment of the impact on the reduction of time and costs for the operators.

¹⁷ The ongoing developments includes the negotiation of mutual recognition agreements and recent publication of Resolution 48 de 2020, Diario Oficial 51488, on November 4th, establishing the possibility of certification of port terminals and operators.

Lack of automation and more advanced solutions for processing postal and expedite shipments, including alternative models for tax collection, to support development of cross-border e-commerce of goods

The unprecedented growth of cross-border e-commerce over recent years has developed new consumption and supply modes and new trade patterns, offering new opportunities for jobs and economic growth. The sharp increase on the volume of small parcels crossing the borders, particularly through postal or express industry is impacting all countries and jurisdictions and has become a challenge for Customs and border agencies to cope with, demanding the border agencies to modernize their management processes, applying innovative solutions, through automation and new technologies, such as advance reception of information and risk management, deployment of non-intrusive inspections and tracking and tracing technologies, establishing new cooperative arrangements among agencies and with private sector, and piloting new revenue collection approaches for Customs and other duties and taxes.

Colombia still need to implement more advanced solutions, such as new approaches for revenue collection and dedicated automated systems for postal and expedite shipment data reception and processing. Despite initial modernization initiatives to improve postal and express consignments processes, as the advance reception of cargo manifest data, Colombia's Customs and border controls remain largely based on sorting parcels and shipments by physical and non-intrusive inspections, and still need to adopt more advanced solutions, such as exploitation of new approaches for revenue collection and dedicated automated systems for postal and expedite shipment processing. The Government has recognized e-Commerce as a strategic topic for development and, on November 2020, issued the National Policy for E-Commerce¹⁸, with an action plan with 25 initiatives, including a diagnostic of *Exporta Facil* Programme, that contains simplified procedures to support exports by postal services. The e-Commerce strategy is complemented by the recently approved Tax and Customs Modernization Programme¹⁹ and initial reforms were already implemented, as the introduction of the *De Minimis* of USD 200, exempting imports by lower value postal and expedite shipments (from August 2020²⁰). Customs is also proposing a new amendment to the Customs Code to lift the limit of exports by postal services. Colombia should consider elaboration of a modernization project, based on a comprehensive business process reengineering for postal and expedite shipments, harmonizing data elements with international standards and practices, and on new approaches for revenue collection (four possibilities are currently explored: seller/vendor based collection; intermediary based collection; buyer/consumer based collection; and variant/hybrid approaches).

Lack of a comprehensive performance measurement framework for both the trade facilitation development agenda and for the organizations engaged

Programme and organizational performance measurement is imperative for Customs and Cross Border Regulatory Agencies engaged in any serious reform and modernization process, seeking a sound basis for decision-making and assessing impact of changes implemented. Performance measurement also increases accountability, raises the Agencies' profiles and supports business cases for further investments. Colombia Custom already publishes Time Release Studies on a regular basis (2016, 2017, and 2019²¹), but

¹⁸ See CONPES 4012 (<https://colaboracion.dnp.gov.co/CDT/Conpes/Económicos/4012.pdf>) and its Annex with the Action Plan (<https://colaboracion.dnp.gov.co/CDT/Conpes/Económicos/PAS%204012.xlsx>)

¹⁹ See CONPES (<https://colaboracion.dnp.gov.co/CDT/Conpes/Económicos/3993.pdf>)

²⁰ Amendment of Art. 261 of Customs Code (Decree 1165, 2019) by the Decree 1090, 2020.

²¹ See <https://www.dian.gov.co/aduanas/Paginas/Estudio-de-tiempos-de-despacho-de-mercancias-.aspx>

it should consider automation of the studies and embedding results on performance measurement systems. Customs and Border Agencies should consider a system that cluster a set of indicators, based on direct measurement (qualitative and quantitative), as well as satisfaction and perception surveys, to be complemented by international benchmark instruments available, like the WB Trading Across Border Doing Business Report, or the Logistic Performance Index. The purpose is to have a more comprehensive picture of the performance related to trade facilitation and its evolution over time.

LOGISTICS AND CONNECTIVITY

Limited maturity of logistics business practices

A degree of sophistication in logistics markets is the extent to which outsourcing is introduced. There is a wide variation in the degree of logistics outsourcing depending on the type of supply chain service offered. Whereas outsourcing transport and distribution, and tracking and tracing of vehicles operations are more common in Colombia, there are many value-added services that are, comparatively speaking, still not externalized to logistics service providers. Inventory control, cold chain monitoring, warehousing and shipment processing, are just some of the examples of those services that are still in relatively less outsourced (see Annex II - Figure 9 and Figure 10).

There is a significant gap in the degree of outsourcing by user firm size. There seems to be a significant bias in the extent of outsourcing depending on the size of the user company. While the reasons might be hard to generalize, including lack of willingness to pay for them, lower access to higher quality services for SMEs might diminish their potential to expand their participation in GVCs; this might require sensitization efforts targeted to productive sectors on the benefits of using such services.

Quality assurance built in logistics business processes are still to find its way in Colombia. While this is not necessarily the case of large firms, SMEs in the country show much less adherence to quality assurance processes in the logistics process. The gap between its effective use by SMEs and large firms is the largest in the use of product technical profiles, packaging requirement assurances, cargo protection requirements, insurance requirements, and issuing instructions for the transporter.

Limited use of technology and information for logistics

Limited use of quality indicators and KPIs. According to the National Logistics Survey, quality indicators measurement is still a relatively uncommon practice. In Colombia, approximately only one in five firms measure quality in their logistics processes. This is significantly skewed towards larger undertakings, as expected, where more than half of them put in practice these metrics, whereas this is less than 20 percent in the case of small and microenterprises (see Annex II - Figure 11).

Technologies are relatively known in logistics. According to survey measurements made, about 70 percent of the surveyed firms in Colombia know about different technologies applied in logistics. The most common forms are vehicles track and trace, electronic invoicing, barcode capture, and shipment track and trace (about 30 percent or higher). On the other hand, transport planning applications, RFID capture, and demand planning technologies are the least known (about 10 or less percent of firms). In the extreme, 3 out of 10 firms in Colombia manifest they do not know any technological tools for logistics (NLS, 2018).

However, implementation and technology use in logistics is still much less widespread. As opposed to the relatively high level of knowledge about different technologies in the sector, the level of technology utilization of firms is comparatively much smaller. Only about 35 percent of firms participating in the National Logistics Survey implemented the different technologies. The most widely used technological tools are tracking and tracing for shipments and vehicles, and electronic invoicing. In terms of those tools that are not implemented but still in demand, electronic invoicing, barcode capture IT, and shipment track and trace are the ones that would probably find the quickest path to implementation if made available.

Better use of data interchange along the supply chain can increase fluidity in the supply chain.

Incidentally, electronic data interchange (EDI) is said to be used in only 8 percent of respondents. In this respect, one of the issues that are still lagging in Colombia is the harmonization of data model standards with those of the industry, that create avoidable costs and added time to logistics and cross-border processes. An example is the decision not to adopt the air cargo industry's data model (IATA CXML) presenting several inconsistencies with the local standards and Customs IT systems.

The good initiatives on data transparency are to be kept and expanded. A national logistics observatory has been set up and big data partnerships have been initiated, as an input for policymaking at the national and regional level. Such institutions should be strengthened and continued as a matter of state policy. Initiatives to defragment and increase accessibility of open data in logistics should be continued.

A pending agenda of institutional and regulatory reform will be also required in the near future

Institutional coordination is still in the agenda. One of the issues identified in the different diagnostics is the need to improve the institutional and governance aspects of the sector. One of the initiatives already identified in the National Logistics Policy update in 2020, is the need to improve the coordination of public sector bodies with oversight responsibilities in logistics and the governance of its main institutions. Among the expected changes is also the creation of specific bodies ("Gerencias") governing different logistics corridors, and enhanced role for coordination at the regional and national levels.

Regulatory aspects will be important to incentivize the emergence of quality service provision and discourage fragmentation. Normative aspects are not really covered in any recent diagnostic work in Colombia. A relatively minor portion of service providers stress that lack of clarity in regulations is an important bottleneck for the development of the sector. Nonetheless, government policy documents recognize that further normative work will be introduced in the time to come, as a way to provide better incentives to enhance the quality of service (e.g. it is understood that via changes in access to the profession rules) and ensure the presence of small players (which could be contradictory), while at the same time ensuring fair and competitive markets, disfavoring unwanted intermediation activities; changes in technical regulation also will be considered to increase the productivity of transport assets and undertakings. Certain aspects will require a combined regulatory and institutional revamping as they are cross-cutting (e.g. urban logistics agenda in Bogota). The latter has been recognized as a major bottleneck by service providers in the sector.

Service quality, availability and cost are still barriers and vary wildly within regions

High costs are cited as the largest barrier for the development of the sector. The National Logistics Survey cites that half of all surveyed stakeholders indicate that the elevated costs are the main factor constraining the expansion of the sector. This is, however, notoriously different within regions: as low as 10 percent of total sales, to 38 percent in the most remote regions of the country.

Cost is not the only consideration for users and cargo owners, but limited availability and quality of service. The highest availability of logistics services in the country are relatively unexpected: cold chain services, customs brokerage, and air transport agencies. On the other hand, the ones with the lowest availability are waterway and maritime transport, air transport and warehousing. Finally, the lowest rating in terms of quality in services provision in logistics are waterway transport providers, container handling services, and maritime transport operators.

Infrastructure upgradation has come a long way although actors identify several gaps still

The provision of specialized infrastructure is one of the main factors recognized by logistics providers as a key bottleneck for the development of the sector. In particular, while the upgradation of modal infrastructure has been significant, with both public and private funding, the apparent conclusion is that in order to incentivize intermodality, away from the dominance of road freight and into other more cost-efficient and less polluting logistics solutions, a special emphasis must be put in the creation and administration of specialized logistics infrastructure (ILE, in Spanish) throughout the country. The latter would allow the efficient connection between modes and articulation of the productive structure of different regions.

Ports infrastructure has been improved but efficiency is still hampered by many other legacy factors. Over 95 percent of Colombian foreign trade is hauled by sea, and about one in four tons is handled through the seaports of Cartagena and Barranquilla. Whereas sector-wide capacity has grown over 45 percent in the last decade or so, along with private sector participation in the sector, different shortcomings have thwarted the efficiency of these gateways and still represent a barrier for traders. Among these, the lack of planning and coordination in terminal expansion, generating hinterland access problems, and fragmentation in the infrastructure and services resulting in longer times and bottlenecks, hence lower utilization of the port's potential capacity. Regulatory issues and limited adoption of technology in the form of port community systems and electronic data interchange (EDI) with other IT systems (e.g. Customs) also contributed to curve external trade, elevating costs and lead times for shippers and importers.

The sector faces a shortage of human capital, especially for key activities like foreign trade and core services

The existing gaps between the supply and demand of human capital are cross-cutting logistics processes and activities. About 65 percent of the personnel that executes the transportation process and warehousing have a high school degree, being in turn, the most representative processes in national logistics costs. Despite being operational, these require technical profiles to increase productivity and standardize the skills and abilities. To ensure the modernization of logistics processes, the automation of the operation and the implementation of technologies of information and intelligent devices, a higher level of qualification is required, at least, at a technical or technological level. There is a shortage of people

trained for certain positions. The country presents challenges in training in specialized software, inventory management and cargo handling. Finally, the gaps tend to be related to languages, IT skills, leadership and customer service. These issues are the ones that stand out the most to strengthen the current educational offer.

POLICY OPTIONS

TRADE FACILITATION

The National Trade Facilitation Committee (NTFC) should become the main platform for the coordination and design of trade facilitation reforms, mobilizing the collective support of all stakeholders and providing a sense of continuity and connectedness of projects. A comprehensive Trade Facilitation plan should be developed to articulate objectives, targets and milestones, to set priorities and sequence multi-year reforms, to support coordination and synergies among projects and agencies engaged, enhance accountability and visibility of the development process, establish mechanisms for monitoring, performance measurement and assessment of the impact, enable traders and operators to be abreast with reforms, and stakeholders and potential investors to better understand and assess future improvements on the business environment.

The Trade Facilitation plan should focus on advancing key projects and addressing important measures:

- i) further develop the Single Window project, based on comprehensive import and export business processes reengineering to harmonize data requirements and align with international standards and business practices;
- ii) explore advanced cooperative arrangements between Customs and other border agencies, including the establishment of national targeting center and joint enforcement operations;
- iii) develop comprehensive risk-based compliance strategies, to coordinate actions and controls beyond the borders, gradually replace transactional border inspections by systemic data-based compliance and monitoring and reviews;
- iv) expand the usage of prior arrival processing and release;
- v) increase number of Authorized Economic Operators certified and expand the type of operators covered by the project;
- vi) automate the postal and expedite shipment processes and explore alternative models for tax collection;
- vii) adopt a comprehensive framework for performance measurement and monitoring and impact assessment of the developments, including the eventual automation to time release studies.

LOGISTICS AND CONNECTIVITY

The actions in logistics and connectivity should continue and expand activities already identified under the PAS (Action and Follow up Plan) associated with the National Logistics Plan, including:

- i) Conduct the regulatory impact analysis pertaining quality regulation (access to the profession rules) in order to understand the right balance between fragmentation and quality
- ii) Support capacity building programs to increase absorption capacities in SMEs in regards to business practices in logistics, as well as IT adoption
- iii) Drive decisive policy action in government border agencies to adopt industry standards for EDI (e.g. IATS CXML); foment the use of EDI in general
- iv) Continue efforts to improve human capital in the sector
- v) Support the access to data, transparency and collaboration in areas where information can increase the proposition of the industry and improve the quality of decision making, like in Big Data. Maintaining institutions like the observatories is recommendable
- vi) Institutionalize the instruments to benchmark the sector regularly – the NLS is a proven instrument
- vii) Support governance changes and coordination especially in sensitive segments like urban logistics and regional organization of productive activities
- viii) Proceed to better understand the impact of intermodality investments in the overall scheme of the logistics sector in Colombia; pilot intermodal facility improvements
- ix) Continue to expand the provision of quality infrastructure, when supported by business cases, in conjunction with PPPs
- x) Support the entry of IT solutions like freight boards to improve asset efficiency and ROI

Annex I

A Brief Overview of Colombia Trade Facilitation Performance Benchmarks

Trading across borders is worse in Colombia than among its regional peers, as measured by the *Doing Business 2020* report (Table 1). Designed as a proxy for national performance, trading across borders (TAB) is an imperfect measure for countries that have multiple systems operational in different ports and regions. However, it is broadly illustrative of general performance and can identify particular areas for potential improvement.

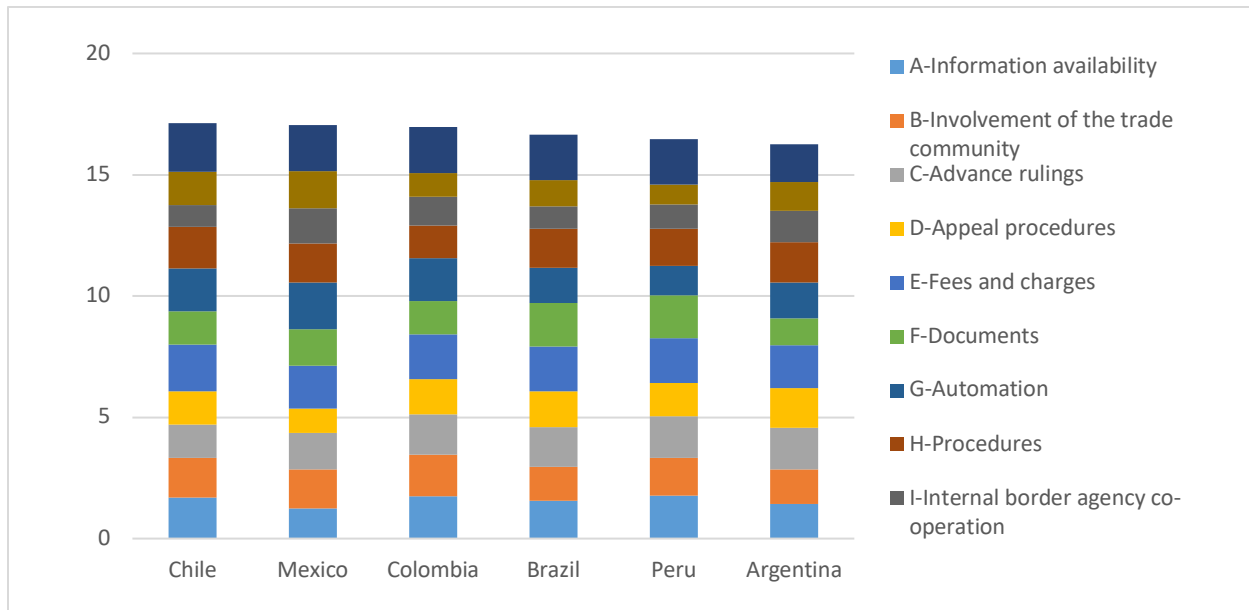
Table 1: *Doing Business 2020 – Trading Across Borders indicators, select countries*

Economy	Trading across Borders Score	Trading across Borders rank	Time to export: Border compliance (hours)	Cost to export: Border compliance (USD)	Time to export: Documentary compliance (hours)	Cost to export: Documentary compliance (USD)	Time to import: Border compliance (hours)	Cost to import: Border compliance (USD)	Time to import: Documentary compliance (hours)	Cost to import: Documentary compliance (USD)
OECD High Inc.	94.3	26	12.7	136.8	2.3	33.4	8.5	98.1	3.4	23.5
Lat. Am. & Carib	69.1	106	55.3	516.3	35.7	100.3	55.6	628.4	43.2	107.3
<i>Argentina</i>	<i>67.1</i>	<i>119</i>	<i>21</i>	<i>150</i>	<i>25</i>	<i>60</i>	<i>60</i>	<i>1200</i>	<i>166</i>	<i>120</i>
<i>Brazil</i>	<i>69.9</i>	<i>108</i>	<i>49</i>	<i>862</i>	<i>12</i>	<i>226</i>	<i>30</i>	<i>375</i>	<i>24</i>	<i>107</i>
<i>Chile</i>	<i>80.6</i>	<i>73</i>	<i>60</i>	<i>290</i>	<i>24</i>	<i>50</i>	<i>54</i>	<i>290</i>	<i>36</i>	<i>50</i>
Colombia	62.7	133	112	630	48	90	112	545	64	50
<i>Mexico</i>	<i>82.1</i>	<i>69</i>	<i>20</i>	<i>400</i>	<i>8</i>	<i>60</i>	<i>44</i>	<i>450</i>	<i>18</i>	<i>100</i>
<i>Peru</i>	<i>71.3</i>	<i>102</i>	<i>48</i>	<i>630</i>	<i>24</i>	<i>50</i>	<i>72</i>	<i>700</i>	<i>48</i>	<i>80</i>

Source: Doing Business 2020

The OECD Trade Facilitation Indicators suggests Colombia has improved its alignment with the WTO TFA provisions (Error! Reference source not found.1). According to the OECD TFI website, Colombia exceeds or is closest to the best performance across the sample as regards: information availability, involvement of trade community, fees and charges, automation of border processes, internal border agency cooperation, governance and impartiality. Performance has improved between 2017 and 2019 in the areas of: information availability, advance rulings, appeal procedures, fees and charges, governance and impartiality. Performance in the other areas remains stable, with the exception of simplification and harmonization of documents, where some ground was lost compared to the other economies in the sample.

Figure 1. OECD Trade Facilitation Indicators rankings by total score by subcategory, 2019

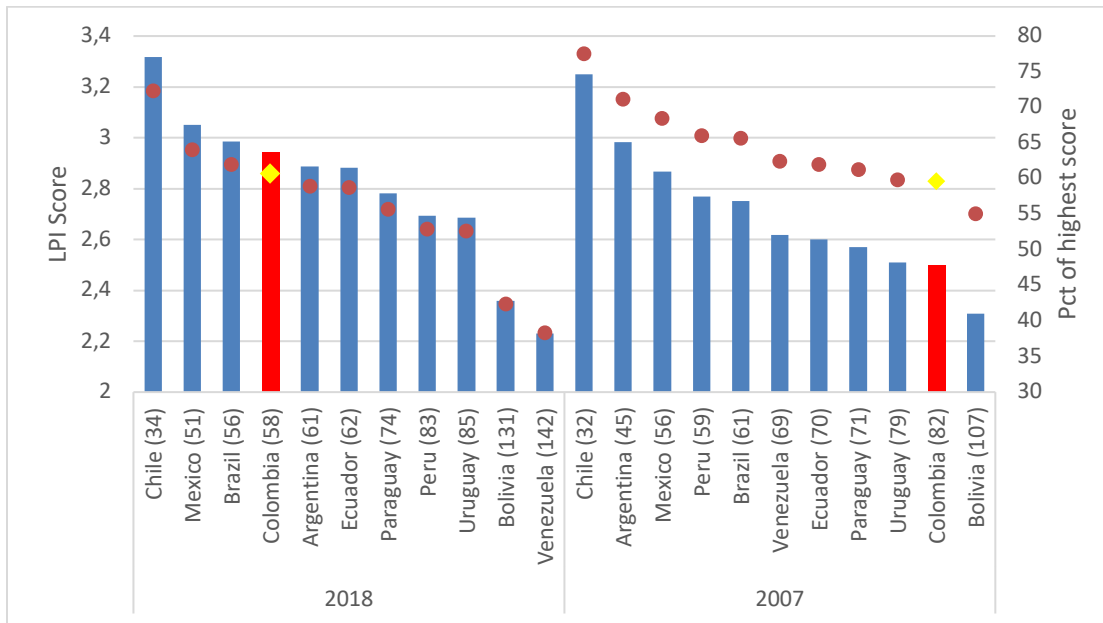


Source: OECD, 2019

Annex II

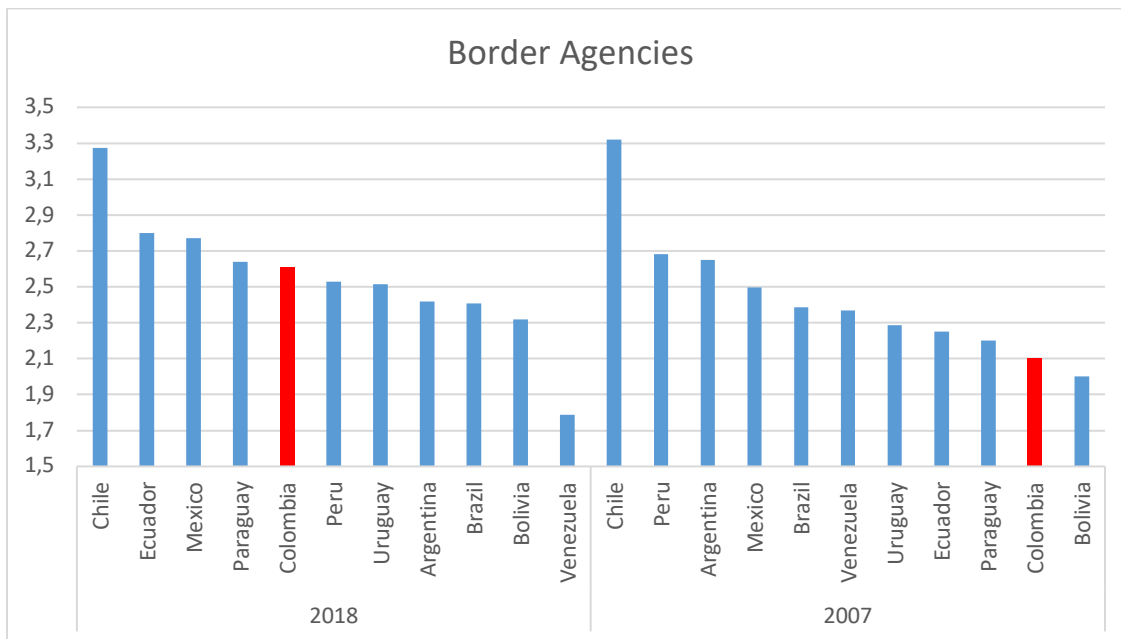
Logistics and connectivity performance indicators

Figure 2. LAC countries in 2010's International LPI Index



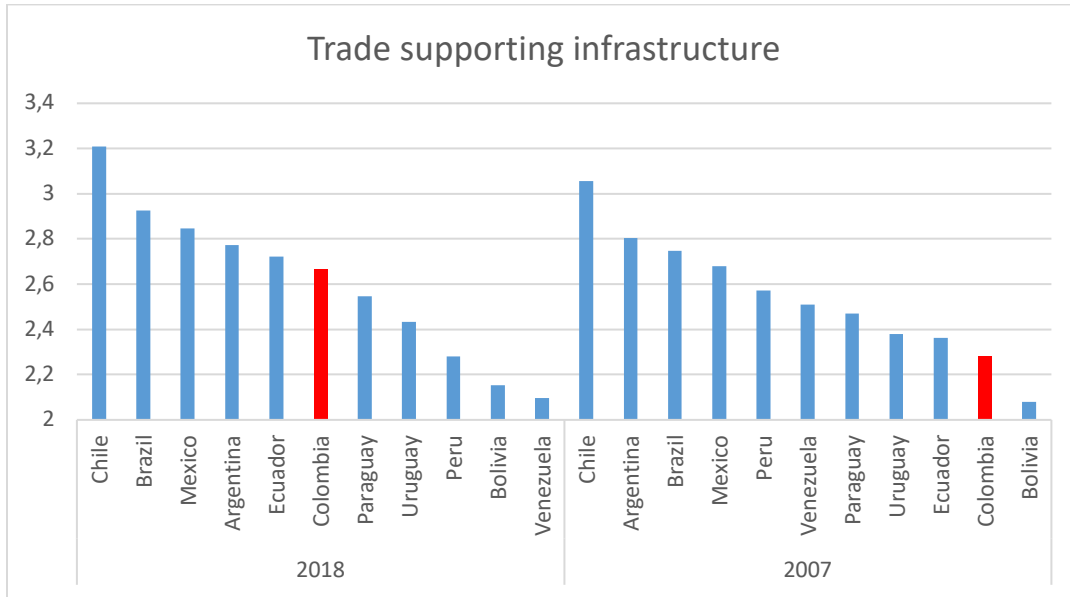
Source: LPI, World Bank

Figure 3. International LPI components performance in LAC, by subregion



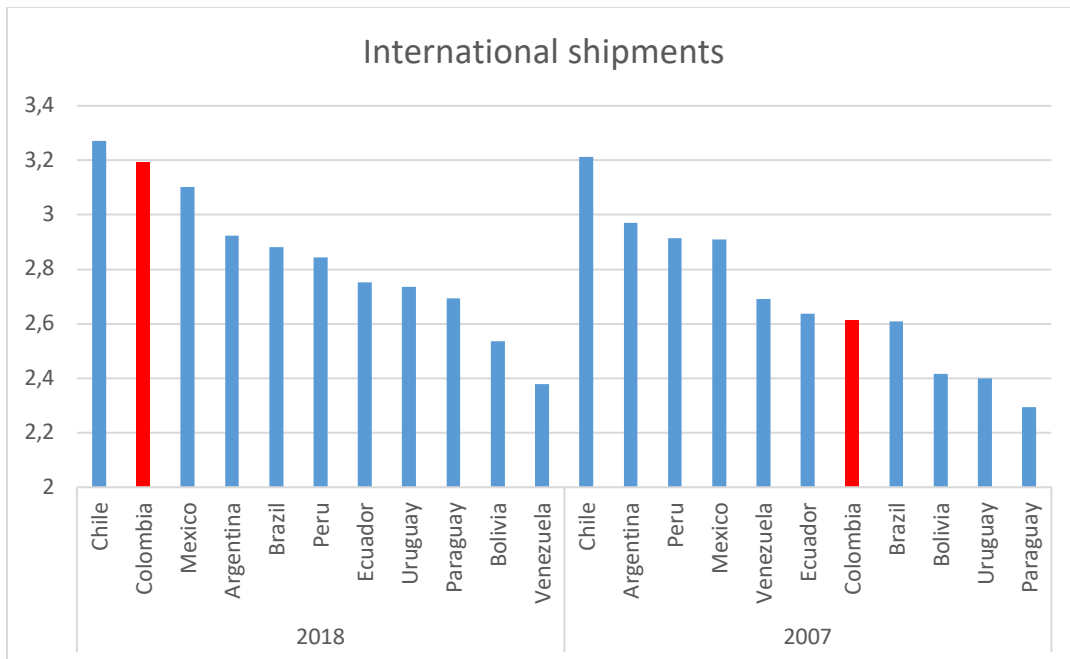
Source: LPI, World Bank

Figure 4. International LPI components performance in LAC, by subregion



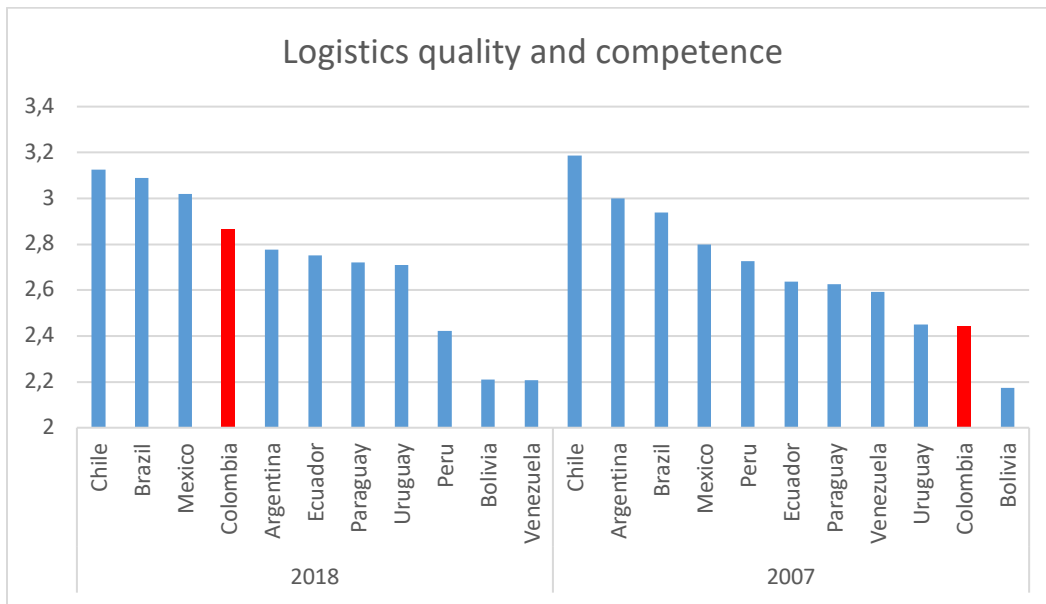
Source: LPI, World Bank

Figure 5. International LPI components performance in LAC, by subregion



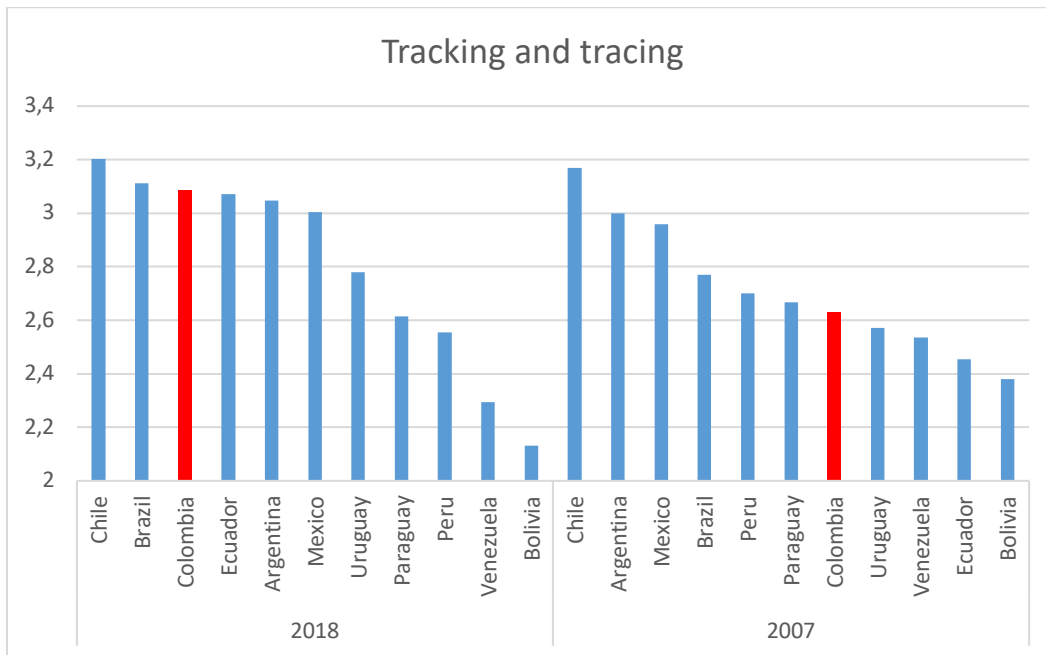
Source: LPI, World Bank

Figure 6. International LPI components performance in LAC, by subregion



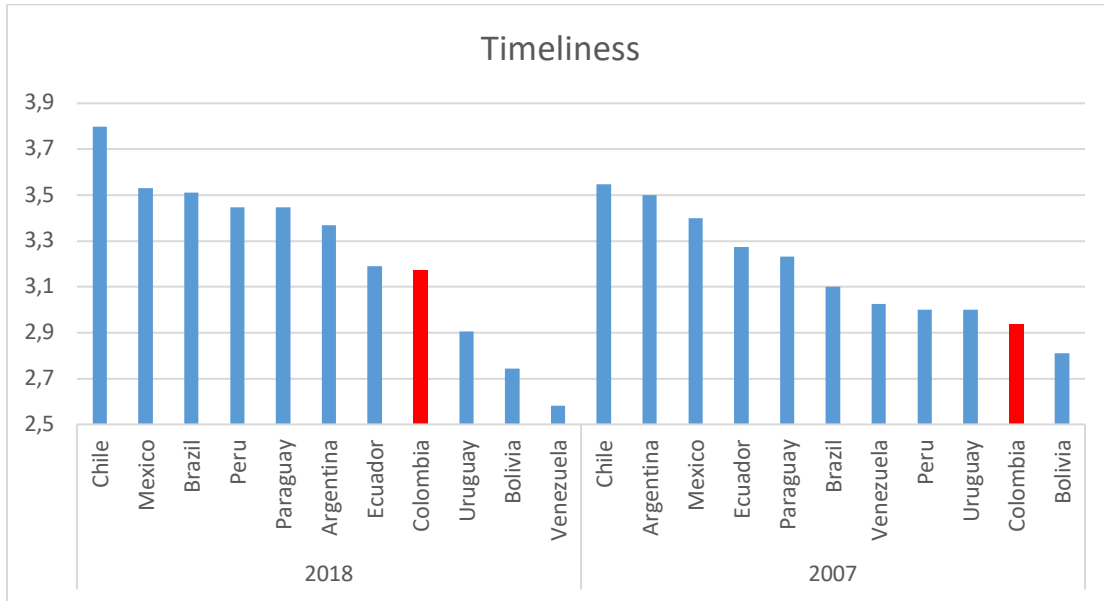
Source: LPI, World Bank

Figure 7. International LPI components performance in LAC, by subregion



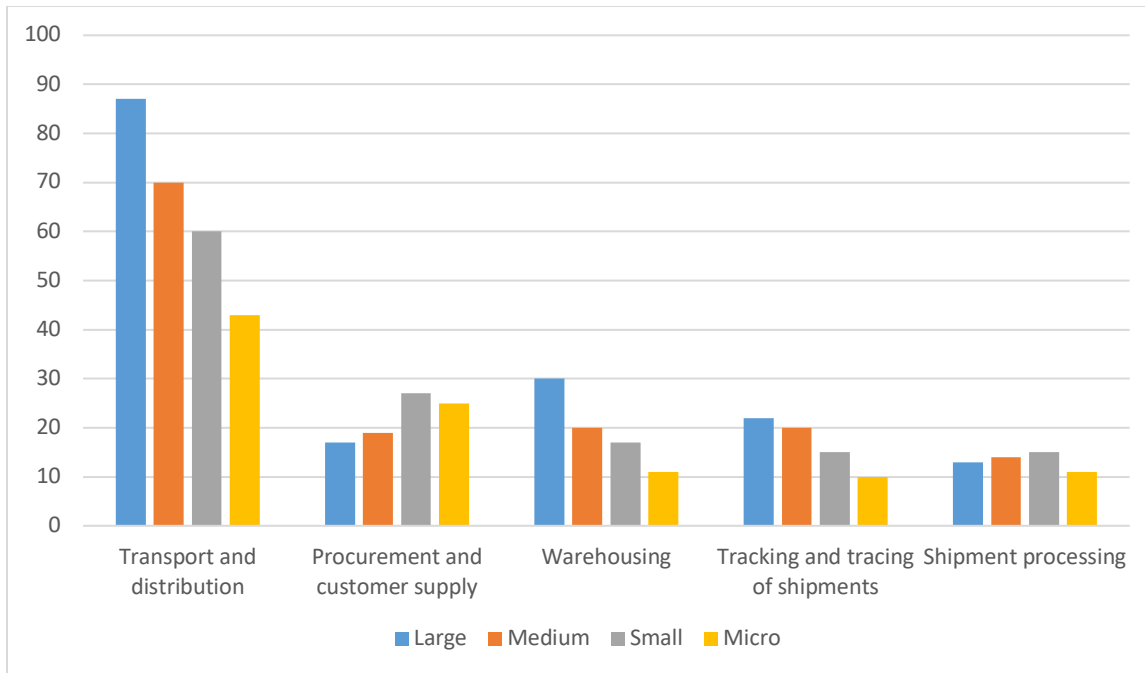
Source: LPI, World Bank

Figure 8. International LPI components performance in LAC, by subregion



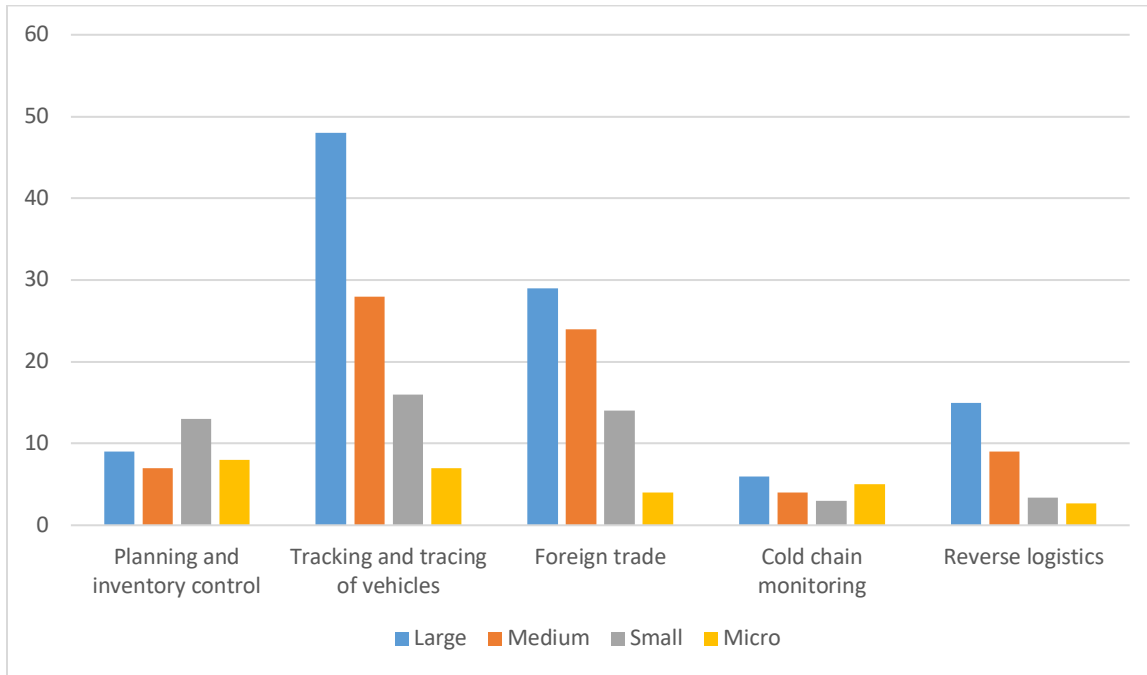
Source: LPI, World Bank

Figure 9. Degree of outsourcing of logistics services, by activity and firm size



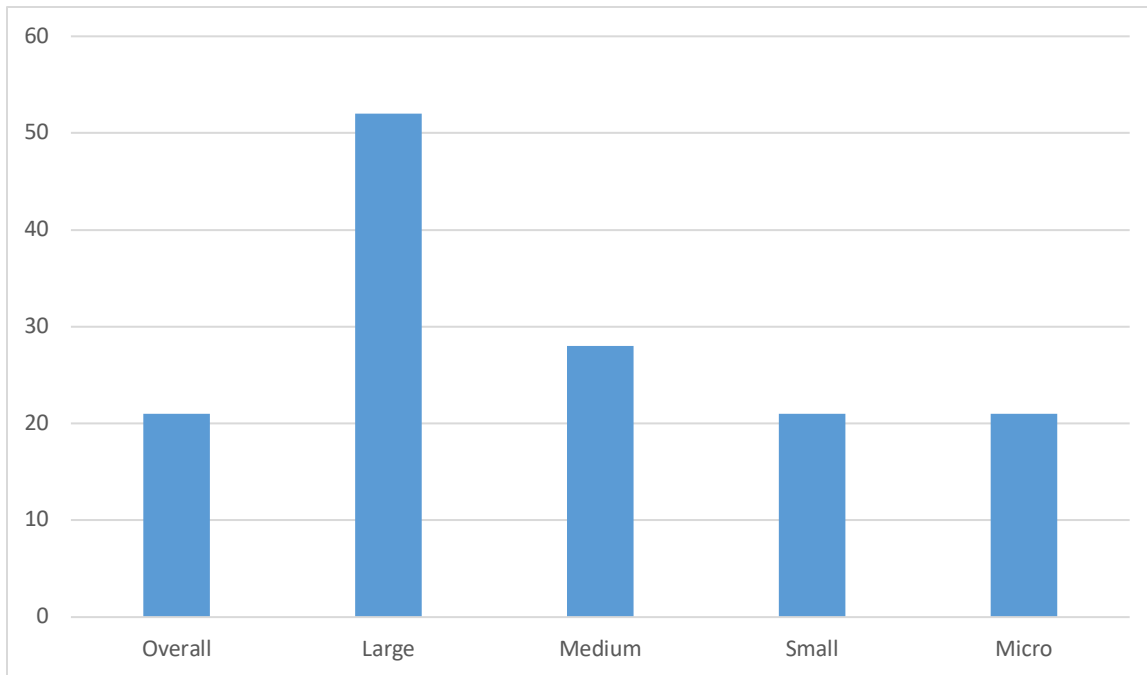
Source: National Logistics Survey, 2018

Figure 10: Degree of outsourcing of logistics services (continued), by activity and firm size



Source: National Logistics Survey, 2018

Figure 11. Percentage of firms that measure quality indicators, by firm size



Source: National Logistics Survey, 2018

