POST PANDEMIC COVID-19 ECONOMY RECOVERY

Enabling Latin America and the Caribbean to better harness e-commerce and digital trade













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Konrad Adenauer Stiftung (KAS) has established the Regional Program "Alliances for Democracy and Development with Latin America" (ADELA) based in Panama. This program aims to contribute to the strengthening of cooperation between liberal democracies in Latin America, Europe and other regions of the world, as well as to provide spaces for dialogue between the different actors. Among the target groups are representatives of national governments and parliaments, international and regional organizations, organized civil society and the economic sector. This document was prepared within the framework of a cooperation agreement with the Konrad Adenauer Stiftung, RP ADELA and ECLAC, in collaboration with the IDB.

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PREFACE

In April 2021, more than a year has passed since the first case of COVID-19 was detected in Latin America and the Caribbean. The spread of the virus in the region has challenged health systems and disrupted social and economic life. It has caused one of the worst crises in recent history in a region, where countries had just recovered from the international financial crisis of 2008-2009. Social distancing and containment measures strongly disrupted people's consumption patterns and business operations.

The application of digital solutions to maintain business and consumption emerged as a natural response to cope with social distancing and restrictive measures. This accelerated a trend that was already incipient in the region before the pandemic, but slow by standards of developed economies. In particular, e-commerce thrived, allowing those businesses that had opened or strengthened digital sales channels as the pandemic unfolded to keep afloat and remain solvent during the crisis.

The experience of some developing countries in recurring increasingly to digital solutions to respond to the first wave of the COVID-19 pandemic demonstrated the potential of e-commerce to spur resilient economic growth and facilitate economic integration. However, it also showed remaining challenges to bridge digital divides and ensure that the growth of e-commerce reduces inequalities, rather than accentuating them.

This context motivated a joint and coordinated effort by a group of eTrade for all partners to assess the global and regional impacts of the pandemic on the uptake of e-commerce, especially among developing countries. This assessment also investigated the challenges faced by businesses and consumers, policy responses by governments, and priority areas of work going forward to leverage digital trade as an enabler of economic recovery.

This collective initiative resulted in a set of regional studies and a global one led by the United Nations Conference on Trade and Development (UNCTAD). The work for this report was coordinated by the United Nations Economic Commission for Latin America and the Caribbean (ECLAC), the Inter-American Development Bank (IDB), and the ADELA regional program of the Konrad Adenauer Stiftung (KAS), and benefitted greatly from discussions in the context of the eLAC 2022 Digital Agenda for Latin America and the Caribbean.

This report shows that Latin America and the Caribbean faces critical policy challenges going forward. It must accelerate the digital transformation to allow businesses and consumers to adapt to a new normal and leverage pandemic recovery to create stronger economies, and also tackle long-standing barriers to adopting digital technologies and bridging digital divides. These have impeded sustained and equitable economic growth even before the pandemic struck. This crisis should be a wake-up

call for governments, the private sector, civil society, and international development partners to come together and take concerted actions to advance on consistent, long-term, and sustainable e-commerce strategies that are at the forefront of national and regional productive development agendas. Just as digital solutions allowed countries to overcome the increased role of distance within the context of the pandemic in shaping consumption and business, they should also be harnessed to increase regional economic integration beyond this emergency situation.

The pandemic has presented an opportunity for the region to realize the potential of regional and international cooperation mechanisms in digital matters to leverage national initiatives, address common challenges strategically, and learn from best practices. In this respect, the eLAC 2022 Digital Agenda for Latin America and the Caribbean and its agreement to promote a regional digital market offers a mechanism to improve the design and application of digital policies in the region and drive regional cooperation efforts to support the digital transformation.

ACKNOWLEDGEMENTS

This report was coordinated by the United Nations Economic Commission for Latin America and the Caribbean (UNECLAC), the Inter-American Development Bank (IDB), and the "ADELA" Regional Program of the Konrad Adenauer Stiftung (KAS). It is part of a global effort by selected eTrade for all partners, led by the United Nations Conference on Trade and Development (UNCTAD), to engage in a range of studies on "Post Pandemic Covid-19 Economic Recovery: Enabling Developing Countries to Better Harness e-commerce and Digital Trade".

It was prepared by a team led jointly by Nanno Mulder (UNECLAC), Sandra Corcuera-Santamaria (IDB) and Winfried Weck (KAS), in collaboration with Lucas Barreiros (IDB), Rodrigo Contreras Huerta (IDB) and Alejandro Patiño (UNECLAC). The team coordinated its work with Torbjörn Fredriksson and Sabrina lelmoli (UNCTAD) in the framework of the eTrade for all initiative. The document was coordinated by Marcee Gomez (ADELA program of KAS). The editing was done by Jessica Wolf and the design and lay-out by Axel Cubilla.

Bernardo Díaz de Astarloa was the lead consultant for this report.

The report benefited from comments and suggestions from Christian Volpe Martincus. Fruitful and valuable conversations with key industry stakeholders were facilitated by the Americas Business Dialogue (ABD). Interviews with customs operators and policy makers in selected countries were also instrumental in understanding challenges and actions taken during the COVID-19 crisis. In particular, the report benefitted from conversations with Mariana Cañón Granados, Diego Casella, Daniel Cavalcanti, Alba Gómez Bayuelo, Piero Guasta Leyton, María Elena Lee Marasca, Virginia Medeiros, Julio Pertuze Salas, Diana Rey Vásquez, Fiorella Segredo, Fernando Sene, Alfredo Sollazo, and Mauricio Vallejo Franco. Finally, several government representatives in the LAC region kindly collaborated with the report by participating in a survey of "Initiatives and policy responses to foster e-commerce and digital trade amidst the COVID-19 pandemic in LAC", conducted during September and October 2020.

The report also benefited from comments and suggestions during the workshop "The rise of e-commerce in the context of the pandemic and the challenges ahead", which took place within the VII Ministerial Conference on the Information Society in Latin America and the Caribbean (23-26 November, 2020).

EXECUTIVE SUMMARY

Latin America and the Caribbean (LAC) has been one of the hardest hit regions by the COVID-19 pandemic. Restrictions and other interventions to reduce contagion and preserve public health have heavily impacted the economy. In 2020, regional GDP experienced one of the largest falls in history, with GDP per capita dropping to 2010 levels. This led to a major increase in unemployment, informality and poverty. Regional trade in goods also fell in 2020, albeit less than during the 2008-2009 financial crisis. Tourism and international transport were more severely hit than during the previous crisis, while trade in ICT- and digitally-enabled services resisted better.

Businesses and consumers shifted massively to digital and online channels to circumvent social distancing measures, continue business operations, secure sources of income, and remain solvent during the pandemic. Within a few months, e-commerce penetration in the region jumped years forward, accelerating a slow digital transformation process occurring before the outbreak of COVID-19.

Digital trade transactions skyrocketed as did the number of people buying online. This happened both in established e-marketplaces and among traditional MSMEs, who set up their own online stores or developed digital sales channels in collaboration with delivery platforms. As consumers avoided physical stores, they searched and bought online more frequently. First, they sought to buy personal protective equipment online. As the pandemic dragged on, consumers added groceries, electronics, furniture, and fitness equipment to their online purchases. The socioeconomic profile of online consumers also changed, with electronic purchases of lower income households showing high growth rates. The consumption patterns of digitally traded services changed drastically as well: online travel and tourism purchases plummeted, whereas online education, music and video streaming, and gaming soared.

While domestic e-commerce saw unprecedented growth rates, preliminary data suggest cross-border merchandise e-commerce in the region was negatively affected by the pandemic. The latter happened particularly at the extensive margin, as fewer consumers bought in foreign marketplaces. Disruption in all travel modes, particularly air transport, seems to have been mostly responsible for this trend.

The push towards digital trade was held back by important bottlenecks in the region. Some challenges were shared by most countries worldwide given the magnitude of the crisis, but most reflected structural deficits that hinder digital trade. Notwithstanding substantial cross-country differences, the region trails the OECD and South-East Asia on its preparedness to engage and benefit from e-commerce. In many countries in LAC, internet access remains of low quality and expensive, with large gaps between rural and urban areas. Trade facilitation measures lack coordination between border agencies and private operators, while the adoption of new technologies is still low. Moreover,

last-mile delivery is costly and unreliable. Preferential trade agreements include few provisions to facilitate digital trade, both in goods and services. Informality and low financial inclusion prevent the expansion of digital payments, compounded by outdated regulatory environments. Gaps in digital competencies and the uptake of digital technologies persist among firms, especially MSMEs and those led by women.

During 2020, several governments in LAC took measures to strengthen business continuity and resilience through digital trade. They have implemented actions to improve digital and physical connectivity, increase the availability and uptake of digital tools, foster the adoption of new working and business practices, and promote the development of digital skills and abilities. In half of LAC countries, these actions were taken within a previously established national strategy to promote e-commerce. Some governments reallocated public resources to expand initiatives which had been developed prior to the pandemic, rather than launch new ones. Another 15% of countries developed a new e-commerce strategy prompted by the need to respond to the pandemic. In many countries, these strategies are framed within broader digital agendas. The breadth and depth of national strategies vary substantially across countries, however. Only in a few cases, policy approaches reflect a multi-dimensional and coordinated effort to promote e-commerce.

Most governments supported MSMEs going online for the first time or improving their online presence. They introduced specialized websites providing guidance, information, recommendations, and training. In some countries, governments introduced a marketplace or mobile application for MSMEs to sell their products together with digital payments solutions. In other countries, dedicated programs were developed for specific sectors, like creative industries or professional services. Public-private partnerships were widespread, both with large established players and local business associations. Most initiatives supporting firms' engagement in digital trade focused on the home market. Only few strategies were identified that targeted digital exporters or women digital entrepreneurs. Instead, some private sector and international organizations initiatives had a gender focus.

Many countries also took measures to facilitate cross-border trade, delivery, and logistics operations. Governments included postal, courier, and other logistic and transport services among essential activities and issued specific protocols so that businesses could continue their operations. To ease pressures from reduced personnel at the border, requirements for health-related products, such as personal protective equipment, ventilators, and other supplies were waived. Simplification of customs procedures, such as prioritized and expedited clearance or special modalities for relief consignments, were also implemented. Beyond these, however, few countries in the region stepped up efforts to address structural challenges in trade facilitation and logistics, except for the digitalization of customs processes including risk management procedures, advanced electronic filing or enhanced postal services.

During 2020, there were few advances in the regulatory and legal environment to enable digital trade, especially regarding digital payments. Only those countries having an e-commerce strategy in place before the pandemic took measures to increase the interoperability of electronic payments and reduce the adoption costs for MSMEs. Some countries amended consumer protection frameworks to regulate online consumption.

To harness e-commerce and increase its contribution to the post-pandemic recovery, governments should step up their policies in several domains to build a sound ecosystem for this type of trade. This should be done in close coordination with stakeholders from the private sector, academia, and civil society. This report proposes the following policy recommendations:

- Introduce long-term digital infrastructure plans and provide a regulatory framework that foster public-private coordination to ensure universal affordable access to high quality internet. This means governments should go beyond the temporary emergency measures taken during the pandemic.
- Improve trade facilitation and logistics to sustain the growth of cross-border e-commerce. These include capacity building and adoption of new technologies, such as artificial intelligence and blockchain, to automate and modernize risk assessment and other custom procedures.
- Modernize regulatory and legal frameworks for electronic and digital payments, especially cross-border digital payments. This includes innovative ways to deepen the penetration of electronic and digital payment systems while preserving privacy and ensuring trust, allowing for more integration between banking institutions and digital companies.
- Take measures to lower trade costs and entry barriers for MSMEs to participate in e-commerce, avoid preemptive practices, and implement effective competition policies. Governments face a trade-off between promoting access to established marketplaces and digital platforms and curtailing market dominance. The latter could result in inefficiencies and undesired distributional effects. Some promising avenues include facilitating access to purely informational online platforms that connect MSMEs with clients abroad, and new export promotion modalities using digital technologies.
- Train MSMEs on basic digital skills, standard management practices, and new business models to ensure their profitable and sustainable engagement in digital trade.
- Step up efforts to measure e-commerce and associated digital transformations for more accountable, effective, and evidence-based policy processes. Customs administrations should create cross-border comparable e-commerce statistics following international standards.

- Streamline programs and initiatives to promote e-commerce with broader digital transformation strategies, especially those aimed at strengthening digital skills and competencies. This would improve consistency and avoid duplication of efforts.
- Strengthen mechanisms to enhance cooperation in digital policies at the regional level, especially within the context of the Digital Agenda for Latin America and the Caribbean (eLAC2022). This agenda establishes specific objectives to promote a regional digital market, seeking to eliminate barriers for the exchange of goods and services by means of digital channels through regulatory harmonization, coordination of resources, and reduction of transaction costs. Governments could in this context take advantage of the combined offers by members of the eTrade for all initiative, including by ECLAC and the IDB.

Finally, governments should maintain the policy impetus given to e-commerce due to the COVID-19 health and economic crisis. They can learn from best practices within and outside the region, engage in international cooperation efforts to bridge long-standing digital and regulatory gaps, and get involved in multilateral initiatives to address common challenges arising from growing e-commerce.

INTRODUCTION

The COVID-19 pandemic accelerated existing trends in e-commerce adoption, increasing its penetration globally. As governments and private entities took measures to mitigate the spread of the virus, including lockdowns and movement restrictions, and consumers practiced social distancing to prevent contagion, a significant share of domestic and international trade in goods and services was redirected through digital means.

Consumption of digital services and online shopping surged during the pandemic, especially through previously established platforms and marketplaces. More businesses and consumers resorted to electronic payment methods, while many people worked from home, increasing pressure on internet services. For many businesses and consumers, this represented an opportunity to tap into online and digital markets for the first time, while others took advantage of the situation to strengthen their online presence.

Depending on the level of e-readiness and the extent of digitalization in each country prior to the pandemic, the rapid transition to digital environments faced significant obstacles. Overcoming these hurdles represented a challenge for governments, the private sector, international organizations, and development partners, which took measures to alleviate pressures in several policy domains, including with respect to e-commerce strategy formulation, ICT infrastructure and services, electronic payments, trade facilitation and logistics, legal and regulatory frameworks, digital skills development, financing, and support for women digital entrepreneurs.

This report provides a preliminary assessment of the impact of the COVID-19 crisis on e-commerce. It is based on data and information available mostly until the third quarter of 2020, including from official statistics, business and consumer surveys of e-commerce, reports by multilateral and private sector organizations, and interviews with government officials and industry participants. In particular, it draws on a coordinated effort undertaken by four of the United Nations' Regional Commissions, the Inter-American Development Bank, UNCTAD, and support from other partners under the eTrade for all initiative. It is intended to stimulate discussions about policy initiatives that could enable developing countries to better harness e-commerce and digital trade to recover from the COVID-19 crisis.

The report is organized in two parts. The first part provides an overview of trends in global e-commerce before and during the pandemic, as well as a description of emerging challenges and policy responses prompted by the COVID-19 pandemic in key policy areas identified by the eTrade for all initiative. It highlights examples from different world regions, including Africa, Latin America and the Caribbean, the Middle East, North America, and Europe. The second part focuses on the experience of Latin America and the Caribbean (LAC). Similar in structure to the first part, it starts

with a description of recent trends in e-commerce and digital trade before and during the pandemic. Then, based on interviews with relevant industry stakeholders and policy makers and an analysis of available data and reports, it assesses main bottlenecks and challenges faced by governments and the industry in LAC in order to unlock e-commerce's full potential. The report then turns to an analysis of public policy responses by governments in LAC amidst the COVID-19 pandemic, aiming at identifying best practices and lessons learned. The second part concludes with an identification of gaps where effective responses and concerted actions might be needed, and suggestions are made regarding avenues to implement them going forward.

Given the uncertain prospects regarding the duration of the COVID-19 pandemic when this report was written, the findings and conclusions are preliminary. Nevertheless, they intend to stimulate discussions and insights about which policy responses may be most effective to leverage e-commerce in the post-pandemic recovery, as well as sustain its long-term development to promote economic integration and inclusion. Moreover, it points to domains that should be prioritized in the short run in LAC countries.



GLOBAL OVERVIEW OF TRENDS AND POLICIES TO ENABLE E-COMMERCE AND DIGITAL TRADE IN A POST-PANDEMIC RECOVERY



INTRODUCTION



The COVID-19 pandemic has accelerated the growth in domestic and cross-border e-commerce. Lockdowns, movement restrictions, and social distancing to prevent contagion have driven a switch to online and digital channels, increasing the share of digital trade on total trade, both in goods and services.

This part I summarizes global trends during the pandemic and policy responses implemented by governments and international organizations worldwide to enable e-commerce in a post-pandemic recovery. It draws on studies undertaken by four Regional Commissions of the United Nations and a global report produced by the UNCTAD in the context of the *eTrade for all* initiative. ¹

The experiences of businesses, consumers, and governments dealing with and responding to the pandemic have differed across countries and regions, mostly according to the extent of overall digitalization and internet penetration, including the affordability and quality of digital connectivity, reliability of communications and logistics networks, adoption of digital payment mechanisms, individuals' and businesses' digital skills, and the presence of established online platforms and marketplaces.

Common trends can be identified, however. The rise in e-commerce activity has been mostly within countries, with an increase in the frequency of purchases and the range of goods and services bought online. Penetration of domestic e-commerce seems to have increased relatively more among lower-income segments of the population, which participated less before the pandemic. Cross-border e-commerce, on the other hand, appears to have been adversely

affected by disruptions in international transport and logistics networks, as well as bottlenecks in border procedures generated, particularly in the early stages of the pandemic, with some signs of recovery in the second semester of 2020.

Governments, the private sector, and international organizations have responded to the crisis in different degrees. While developing e-commerce readiness assessments and a coherent e-commerce national strategy has gained relevance, few countries were able to advance consistently on all policy domains. Rather, measures have been focused on alleviating specific bottlenecks that arose during the emergency, especially regarding ensuring internet connectivity and providing aid to MSMEs.

The rest of the report is organized as follows. The next chapter covers trends in global e-commerce before and during the pandemic, highlighting examples from different regions and countries. Chapter 3 describes policy responses prompted by the COVID-19 pandemic in key policy areas identified by the eTrade for all initiative. Chapter 4 concludes the report with comments regarding the way forward.

GLOBAL TRENDS

2

Overview of global e-commerce before the pandemic

The adoption of information and communication technologies (ICTs) during the last decade has prompted important changes in the way people and businesses produce, consume and exchange goods and services, increasing the importance of digital trade in overall economic activity. In 2018, the value of global B2B and B2C e-commerce sales was US\$25.6 trillion, reaching 30% of world GDP (UNCTAD, 2020a), with around 1.45 billion people making online purchases. Compared to 2017, it saw an increase of 8%.

The bulk of e-commerce, including transactions in online platforms and those enabled by electronic data exchange, corresponds to B2B operations, which were 83% of total sales in 2018. Predominantly, online purchases are done among domestic suppliers. For instance, cross-border B2C e-commerce sales represented less

than 10% of total e-commerce sales among the top-10 merchandise exporters. Similarly, the share of online shoppers making cross-border e-commerce transactions was 23% in 2018, up from 18% in 2016 (UNCTAD, 2020a).

Penetration of e-commerce and digital trade has been uneven, with significant differences across countries and regions. UNCTAD (2020a) estimates that (in decreasing order) the United States, Japan, and China remain the largest markets in terms of value, accounting for 34%, 13%, and 9% of global e-commerce sales, respectively. Regionally, according to estimates from eMarketer's 2020 Global Report, Asia-Pacific accounted for 62% of global e-commerce sales in value, followed by North America (19%) and Western Europe (13%). Central and Eastern Europe, Latin America and the Caribbean, the Middle East, and Africa accounted for the remaining 6%.

Developed Economies 87 Transition economies Western Asia 59 East, South, and South East Asia 57 World 55 48 Latin America and the Caribbean 29 Africa 0 20 40 60 80 100

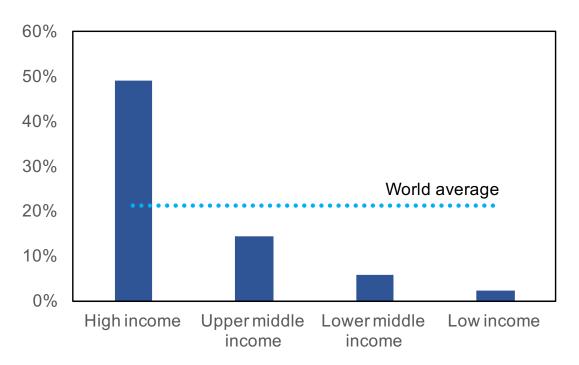
Figure 1. World and regions: Preparedness for B2C e-commerce, 2020 (Index 0 to 100)

Notes: higher values of the index indicate better readiness to engage in and benefit from

e-commerce.

Source: UNCTAD (2021).

Figure 2. Share of adult population using the internet for making online purchases, by income levels, 2017 (Percentage)



Notes: Population aged 15 years old or more.

Source: World Bank, Global Financial Inclusion Database.

differences reflect the These extent digitalization and the maturity of the underlying enabling environment for e-commerce in each country and region, including the affordability and quality of digital connectivity, reliability of logistics networks and the trade facilitation framework, development of digital payment systems, the level of consumers' and businesses' trust in digital transactions, digital skills, and the presence of established online platforms and marketplaces. For example, the average developed economies' UNCTAD's e-commerce index value for 2019 was three times that of Africa and 80% higher than that of Latin America and the Caribbean. (Figure 1).2 Platforms established in the United States and

China dominate the market for e-commerce in goods and services, whereas other regions have been able to develop platforms or marketplaces with more limited reach, such as Mercado Libre in Latin America or Souq in Arab countries. These differences are also consistent with income levels, as shown in Figure 2.

Global trends in e-commerce during the pandemic

Cross-border e-commerce

Disruptions in global supply chains brought about by restrictions on cross-border air, maritime, and road transport adversely affected international merchandise e-commerce, including those transactions made over B2B and B2C e-commerce platforms and marketplaces. For example, survey data from Russia indicated that, by May 2020, 26% of consumers who previously shopped on international websites reduced the frequency of purchases, and 32% completely abandoned them. Customs data from Brazil and Uruguay also show a sharp contraction in international parcel shipments during the first semester of 2020.

Passenger flights, which usually transport small parcels ordered online, fell sharply, although some were redeployed to carry freight, especially essential healthcare items, such as ventilators and personal protective equipment. In some cases, land borders were closed, especially affecting landlocked countries such as those in the Caucasus and Central Asia regions. Maritime container trade also decreased. Slower border control processes due to staff shortages and more complex risk management procedures have also negatively affected international trade flows. Uncertainty and limited information about the extent and duration of restrictions, as well as changes in requirements and rules regulating the flow of goods, contributed to an already confusing scenario, leading to delays and congestion at the border. Global data from UPU (2020) indicate that the average time for customs and border clearance for inbound parcels increased by 97% from late January to mid-April 2020, and the

ratio of stranded mail, which is indicative of the probability that exports will not arrive to their final destination was 136% higher than the baseline for 2019, reaching its historical maximum. However, available data and consultations with industry participants suggest that express shipments may have been less severely affected by the crisis than postal shipments, as the former were able to rely on their own cargo capacity.

As the pandemic evolved, uncertainty diminished, border agencies addressed logistical challenges, and businesses adjusted to the new reality, cross-border e-commerce volumes and value appear to have experienced a slight recovery in the third quarter of 2020, as reflected in UPS and PayPal data (McKinsey, 2020).

Domestic e-commerce

In contrast to cross-border e-commerce, domestic e-commerce of goods and services surged during the pandemic. Lockdowns and other containment measures, movement restrictions (including for non-essential workers), closure of schools and entertainment venues, work-from-home arrangements, and people's social distancing behavior, all contributed to significant changes in businesses' and consumers' behavior, which brought about new consumption patterns in online shopping. The volume and variety of goods and services bought and consumed through digital means increased substantially, with both supply and demand adjusting as the pandemic developed.

Income loss generated from the COVID-19 shock and an increase in uncertainty following containment and preventive measures at the onset of the pandemic may have negatively affected e-commerce activity in some countries, as suggested by evidence from Africa, Peru and Colombia. ⁴

As new rules and regulations became clearer and work arrangements adjusted to the new environment, however, e-commerce showed high growth rates across the world in a context of overall contracting physical retail outlets. In Europe, online orders increased 50% year-onyear on average during the first quarter of 2020, while in North America they were up 120% at the end of May 2020 compared with the same period in 2019. Thailand saw a 60% jump in downloads of shopping apps after a lockdown was imposed in March. In Latin America, consumers shopping on the online marketplace Mercado Libre experienced a 49% year on year increase between late February and late May. In Argentina, Brazil, Colombia and Mexico combined, growth in the number of new consumers more than doubled the 2019 increase in only eight weeks. According to Statista' estimates, e-commerce operations increased substantially across Arab countries as well, as consumers in Egypt, Jordan, Lebanon, Morocco, Saudi Arabia and the United Arab Emirates reported a higher frequency of online shopping.⁵ In Africa, digital trade increased significantly among medium- and high-income countries during the pandemic, although the prepandemic scenario was characterized by very low levels of online and e-commerce activity. Little internet usage, reduced access to finance, and a poor enabling environment, however, have constrained growth.

With contracting offline retail, the share of e-commerce on total retail increased significantly. In China, it increased from 19.4 to 24.6 per cent between August 2019 and August 2020 and, in Kazakhstan, from 5.0 per cent in 2019 to 9.4 per cent in 2020. Similar trends were observed in Argentina, Chile, and Mexico.

The overall increase in digital trade resulted from higher activity along both the intensive and extensive margins, albeit with differences across and within countries. In North America and the European Union, which had attained high levels of e-commerce penetration prior to the pandemic, e-commerce growth occurred through the intensive margin. In lower income countries and landlocked developing countries, such as those in Central Asia and the Caucasus, and some countries in Latin America and the Caribbean, which faced higher transportation costs and were characterized by a culture of physical transactions and cash payments by the time the pandemic struck, the pandemic motivated a shift from offline to online transactions, increasing along the extensive margin. For instance, according to data from the Big Data for the Digital Economy in Latin America and the Caribbean project, between April and May 2020, business websites increased 800% in Colombia and Mexico and around 360% in Brazil and Chile. UNCTAD and Netcomm Suisse (2020) found higher rates of growth in the number of people shopping online in economies with lower rates of participation, such as China and Turkey, than in countries which had higher e-commerce penetration before the pandemic, such as Switzerland and Germany.

As people substituted away from traditional physical channels, the basket of goods and services that a typical online shopper used

to access changed as the pandemic evolved. Essential healthcare items and electronic goods and devices required for home working and home entertainment surged initially. Later on, a wider range of categories of products started to show a higher share in online purchases, such as food and beverages, groceries, personal care, home improvement, and fitness. UNCTAD and NetComm Suisse (2020) find that average monthly expenditure online fell across all product categories during the pandemic, possibly because of higher purchasing frequency, new consumers from lower income groups shopping online, or delayed purchases of luxury or more expensive products amidst uncertainty about future income.

Evidence on increased adoption of digital and electronic payment methods is mixed among developing and transition countries, besides developed economies in Western Europe and North America, where utilization of digital means of payment was widespread before the pandemic. In Latin America and the Caribbean, available evidence from Mercado Libre and PayU points to increased adoption of electronic and digital payment methods.⁶ Among businesses in LDCs, UNCTAD (2020b) found that, although there was a substantial increase in the use of mobile money for transactions, the use of cash was preferred by customers and continued to grow during the crisis.

Digitally delivered services associated with entertainment, videoconferencing, and educational services, showed general growth during the pandemic. The use of videoconferencing applications such as Skype, Zoom, Microsoft Teams or Google Meet became widespread as workers transitioned from the office to alternative work-from-home arrangements.

During the first months of the pandemic usage of video conferencing platforms increased 300% in the United States and traffic from Zoom and Skype in Thailand increased by 830% and 215%, respectively. In Latin America and the Caribbean, the use of teleworking services increased by 320% between the first and second quarters of 2020.

Closures of schools and other educational institutions, which also contributed to increased usage of video streaming applications, prompted higher enrollment in education courses. In Brazil, for instance, they went up by 68%. More generally, in Latin America and the Caribbean the use of distance education services increased by 60%.

UNCTAD and NetComm Suisse (2020) report that more around 60% of people in nine countries browsed and spent more time on entertainment sites.7 In Latin America and the Caribbean, PayU (2020) showed average growth rates of streaming services of 100% in March through July compared to 2019. This is consistent with data from private operators. For example, Netflix added 4.65 million new users in Latin America and the Caribbean region in the first half of 2020 (with a 29% increase in the second quarter compared to 2019) and the company predicts a 15% increase on the African continent between the first and third quarters of 2020 (although starting from a much smaller subscriber base). Among digitally delivered services, gaming seems to be one of the areas that experienced the highest growth during the pandemic, as suggested by evidence from the United States, Argentina and Chile.8

The extent to which consumption of digitally delivered services increased during the pandemic may have varied between and within countries depending on the quality of internet connectivity,

ownership of devices, ability to work from home, and, ultimately, income levels. For example, in Brazil, the main platforms offering streaming services are not accessible to most Internet users because of poor network quality, either because they cannot afford a higher quality or the service itself is deficient. In fact, the increase in paid audio and video services during the pandemic was significantly lower among individuals with lower income and lower education status (CETIC.br, 2020).

Finally, delivery of digital services associated with tourism and other activities that require mobility or physical presence plunged in all regions. In Latin America, website traffic in travel and tourism applications fell 83% between the first and the second quarters of 2020, while in Africa, bookings through Travelstart, an online agency, dropped significantly from March to May. Similarly, due to lower bookings, revenues at Airbnb registered a year-on-year decline of 72% during the second quarter of 2020.

IMPACT OF THE PANDEMIC AND POLICY RESPONSES

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This Chapter presents a synthesis of the policy responses and initiatives implemented by governments and international organizations. It is organized according to the seven policy areas identified by the eTrade for all initiative as vital for countries to engage in and reap the benefits from e-commerce, plus an eighth area focusing on women in e-commerce:

- 1. E-commerce readiness assessments and strategy formulation
- 2. ICT infrastructure and services
- 3. Payments
- 4. Trade facilitation and logistics
- 5. Legal and regulatory frameworks
- 6. Skills development
- 7. Financing
- 8. Women in e-commerce

E-commerce readiness assessments and strategy formulation

Those countries which had previously developed a coordinated strategy for e-commerce were better positioned to effectively implement policies to leverage e-commerce and take advantage of the crisis. This includes changes in regulations as well as targeted assistance to MSMEs establishing or strengthening an online presence.

During the pandemic, stakeholders in many countries realized the importance of strengthening the evidence base for their understanding of e-readiness and of establishing coherent cross-government strategies for developing e-commerce. According to survey responses among businesses in LDCs reported by UNCTAD (2020b), developing or updating a national e-commerce strategy ranked first among measures taken during the pandemic considered to be most important.

Under the crisis conditions, few countries were able to address long-term challenges and develop national e-commerce strategies as a response to the pandemic. Most governments introduced short-term measures to address emergency needs. Progress was seen in some countries, however, especially in those where efforts to develop a long-term strategy were underway before the pandemic. In Latin America and the Caribbean, the pandemic prompted the development of a national strategy in Argentina, Costa Rica, and Mexico, while 6 countries that had an existing strategy updated it. Colombia, for instance, accelerated a public-private

consultation process and launched its national e-commerce policy in November 2020. Similarly, in Cambodia, the government continued the development of a national e-commerce strategy during the crisis and successfully launched it in July 2020. In Central Asia, the governments of Kazakhstan and Uzbekistan made progress in initiatives to facilitate digital technologies and online trading during 2020.

ICT infrastructure and services

Internet traffic grew sharply during the pandemic consistently across countries at all stages of development, as people relied more on digital connectivity to continue their daily tasks. New users and changes in usage patterns explain growth in demand. During the pandemic, people spent more time online and demanded greater bandwidth because of video conferencing, telework, and a shift to online shopping channels, not only for goods but also for education, health, and entertainment. The location of consumption also changed, with greater demand on home networks and reduced traffic at the workplace. In Latin America and the Caribbean, for example, Mexico, Brazil and Chile experienced growth in traffic of 70%, 80% and 170%, respectively, between February and March 2020. In Europe, survey results from McKinsey indicate that a substantial amount of people in all countries increased the range of digital channels that they access (Fernandez et al. 2020).

Limited capacity and shortfalls created difficulties for users worldwide. These connectivity challenges were met by responses from governments and communication businesses alike, who made efforts to increase capacity in response to growing demand. According to the ITU (2020), measures were taken in five dimensions: (1) increased broadband capacity, (2) free services for education and distance learning, (3) the provision of information services related to the pandemic, (4) network management, and (5) more flexible use of spectrum. Interventions in these areas vary regarding scope and time horizons. While infrastructure investments to increase capacity may be deployed in

the medium- to long-term, other measures imposing requirements to operators to lower connectivity costs and reduce congestion' may be exceptional and short-lived, so that the attractiveness of regulatory environments for future infrastructure investments is not affected. Box 1 includes examples for several regions along the enumerated dimensions above.

Box 1. Policy responses to maintain connectivity and deploy infrastructure.

Africa UNECA (2021) reports that the submarine cable operator MainOne sought to raise capacity on its network in West Africa, while in East Africa Seacom added almost 50% more capacity to its 3.2 TB/s network. Regulators in Sudan have made additional spectrum temporarily available to relieve network congestion. Similarly, in Tunisia three telecoms operators provided free internet access for distance education platforms during the lockdown.

Arab countries In Kuwait, the government asked telecommunications operators to provide some free Internet each day for a month during the pandemic, while in Oman measures were adopted to avoid loss of service to customers and businesses facing cash flow problems. In Lebanon, the main operator OGERO added extra capacity and urged users to use their internet connection more responsibly, and in Qatar, the regulatory authority worked with operators to double the Internet speeds for residential customers and the volume of data for mobile customers at no additional cost.

Latin America and the Caribbean Projects for new cable infrastructure that had been announced in 2018 were advanced in Argentina and Chile (ECLAC, 2021). Moreover, a number of governments, such as those of Argentina, Dominican Republic, and Peru, declared internet and mobile services to be essential or strategic, which mandates them to maintain connectivity. In Colombia, the government required that companies guarantee installation, maintenance, and operation of telecommunication services during the emergency, and expedited licensing procedures for new infrastructure. To prevent surges in prices and enhance affordability, discounts and other programs to curb prices were offered by mobile and internet providers in Mexico and other countries. The government of Argentina, for instance, froze prices until December 2020 and required government approval for subsequent increases, while Colombia's government eliminated the VAT on mobile plans below a threshold to reduce the cost of connectivity for low-income households.

South East Asia and the Pacific In Nepal, telecommunications operators have offered a variety of cheaper data packages and recharge bonuses for mobile users. In Tuvalu, an island nation in the South Pacific, the government installed satellite dishes in all its outer islands to enhance connectivity, with a priority on education (UNCTAD, 2020b).

Europe In the European Union, telecom operators and internet service providers exceptionally reduced online speeds to prevent network congestion (European Commission, 2020). Some governments, for example in the United Kingdom, have urged operators to work with customers facing payment difficulties.

Sources: Part II of this report, UNCTAD (2021) and UNECA (2021).

Payments

The global surge in e-commerce during the pandemic led to a widespread increase in the use of digital payment mechanisms for domestic e-commerce. The switch from cash in offline transactions to contactless means of payment for purchases in online marketplaces and stores was not only a necessity, but also lowered the risk of COVID-19 contagion. In countries where penetration of these mechanisms is higher, such as in OECD economies, this trend also motivated a switch to contactless debit and credit cards.

The pandemic also motivated an increase in less traditional systems, such as PayPal, Alipay, or WeChatPay, as well as online bank wires and transfers. The latter trend, however, was concentrated in middle- and high-income countries. Among LDCs, characterized by high rates of informality and unbanked people, UNCTAD's survey of e-businesses found people increasingly used mobile money and cash on delivery (UNCTAD, 2020).

The higher use of and experimentation with digital payments during the pandemic increased trust among businesses and consumers,¹⁰ but also raised vulnerabilities, particularly among new, inexperienced users. Higher cybersecurity risks, fraud, and risks of data abuse have emerged, especially in countries with weak legal and regulatory frameworks for cybersecurity and data protection (OECD, 2020).

The heightened importance of and dependence on digital payments during the COVID-19 pandemic has prompted policy responses from governments to facilitate and promote the adoption of new electronic payment methods, including fee reductions and waivers, temporary increases in the ceilings for financial transactions, promotion of digital channels for government services (e.g. paying taxes and transferring government assistance), and regulatory changes to increase interoperability." Given their position as regulators of the financial system, in many countries central banks have played a major role. Other government areas and agencies, such as ministries of industry and commerce, have taken measures and partnered with the private sector, mostly for facilitating the uptake of electronic means of payment among businesses taking their operations online. Moreover, a number of developing countries have also seen interventions by the private sector targeted at improving affordability and capturing new users.

In Egypt, the Central Bank worked with commercial banks to reduce fees and increase spending limits on digital wallets and prepaid cards. In the Russian Federation, fees paid by businesses in online transactions were reduced, and account verification rules were temporarily simplified. Box 2 provides additional examples of policies implemented during 2020 in Africa and Latin America and the Caribbean.

Box 2. Support measures for electronic payment in Africa and Latin America and the Caribbean

Africa In Uganda, the government worked with mobile operators to offer complementary data packages to facilitate cashless transactions. In Zambia, the government waived charges for personto-person electronic money transfers, which could enable and streamline payments of e-commerce transactions. At least seven African countries have waived or reduced their money transfer fees. For instance, the Central Bank of Rwanda suspended mobile money fees for three months and waived charges on push and pull services between bank accounts and mobile wallets.

In some countries, non-bank companies offering alternative financial services encouraged their adoption by new users during the pandemic. In Kenya, mobile money service M-PESA, for instance, introduced a fee waiver on all transactions under KSH1000 (approximately US\$9.20) for a three-month period. In Zambia, MTN waived fees for transactions below ZMW100 (approximately US\$5.50). In Rwanda and Uganda, both MTN and Afritel lowered mobile money fees. MTN suspended them up to a specified limit in Cameroon and South Africa. In a similar vein, in Togo, the postal agency scrapped fees for selected transactions in its ECO CCP e-wallet, which uses a free mobile savings account, and launched a mobile app to facilitate payment of utilities at no cost.

Central Banks in Africa have played an active role in stimulating adoption of electronic payment methods among businesses and consumers. The Central Bank of West African States, for instance, facilitated the introduction of new digital platforms in Burkina Faso and Togo.

Latin America and the Caribbean In Colombia, the private bank Credibanco partnered with the "Buy Ours" platform and launched the "I stay at my business" program to incentivize electronic payment methods among SMEs using the platform and guarantee business continuity during the COVID-19 crisis.

In Costa Rica, The National Bank partnered with Nidux, a company offering cloud solutions to develop online stores for e-commerce, to offer the NIDI electronic payments platform free of charge for 90 days to SMEs during the pandemic. The platform also includes training in e-commerce and marketing, integration with social networks, and other e-commerce tools, such as inventories' monitoring and products catalogue.

In Mexico, the municipality of Mexico City partnered with Mexico's Banks' Association to promote the use of the Central Bank's electronic payments system, CoDi, and prevent contact and crowds in local banks. Mexico's National Commission for Financial Services Users Protection and Defense (CONDUSEF) also promoted the use of CoDi to mitigate the impact of COVID-19.

Sources: Part II of this report and UNECA (2021).

Trade facilitation and logistics

Lockdowns, movement restrictions in all transport modes, work from home arrangements for personnel in border agencies, and closed borders created major disruptions in the flow of merchandise and the functioning of global supply chains. The value and volume of cross-border e-commerce thus tended to decrease during the pandemic, although systematic and comparable data to fully assess the impact on the pandemic on cross-border digital trade in goods is scarce.

Reduced physical transactions and a shift to online channels generated a surge in the demand for delivery services, which increased pressure on the operations of post offices, express, and courier services. Increased demand, together with network disruptions, impacted heavily on the time for clearing and releasing items through customs, increasing delays. According to global data from UPU (2020), the average time for customs and border clearance for inbound parcels increased by 97% between January and April 2020, with a spread from 2 to 64 hours, and the ratio of stranded mail, which is indicative of the probability that exports will not arrive to their final destination, was 136% higher than the baseline for 2019.

In most developing countries, measures related to COVID-19 added to an already challenging starting point characterized by poor trade logistics, weak trade facilitation frameworks, and unreliable postal services, exacerbating existing bottlenecks in risk management procedures. For instance, in Africa, more intensive border management procedures, including ship and container screenings, personal health checks,

and possible quarantine of goods, accompanied by shortages in staff, caused delays at border crossings, ports and airports. Similarly, in Latin America and the Caribbean, even if available evidence points to reduced cross-border e-commerce during the first semester, a wider range of varieties of goods crossing borders, new health and safety requirements, and shortages in personnel, increased the complexity of border controls and the already ineffective coordination among border control agencies.

Measures to ensure a safe environment for cross-border and postal operations included safety and hygiene protocols for specific sectors, and many countries included postal, courier, and other logistic and transport services among essential activities, issuing specific protocols so that businesses could continue their activities, effectively benefiting e-commerce operations. In Argentina, for example, the government worked with the Argentine Post and the Association of Postal Services Firms of Argentina to develop a hygiene and security protocol, as well as recommendations for workers and users of postal services.

Post offices in some countries also implemented initiatives to offer new delivery and fulfillment services for MSMEs selling online. For example, Senegal's La Poste enhanced its delivery service "Jotnaci" by developing a digital third-party marketplace with revised prices and new partners. In Costa Rica, the Post reduced fees for MSMEs to increase take up of its "Pymexpress" integrated online service, and made delivery of goods bought in Asian marketplaces free of

charge if done in Post offices or at a discount for home delivery. In Argentina, the Post launched "Paq.ar", a new parcel delivery system that integrates with online stores to ease the logistics derived from e-commerce operations.

Finally, governments developed dedicated websites, platforms, and portals including information resources about procedures to reach new markets, connect buyers and sellers, and foster the adoption of solutions to enhance MSMEs' online presence, including public-private partnerships with established marketplaces. Box 3 presents examples of these kinds of interventions from Africa and Latin America and the Caribbean.

Box 3. Initiatives to increase MSMEs participation in e-commerce in Africa and Latin America and the Caribbean

Africa

The African Development Bank established a digital marketplace for MSMEs in the clothing industry called "Fashionomics", with a special focus on connecting women entrepreneurs with buyers in national, regional and global digital marketplaces. In a similar vein, the ITC and partner organizations have launched the "Africa Marketplace Explorer" to provide information and resources for MSMEs on how to sell goods online in foreign markets.

Latin America and the Caribbean

Countries in this region implemented various initiatives to enhance businesses' online presence. For example, Argentina launched the "SMEs Digital Assistance Network" with resources and tools to increase the MSMEs' digital presence, including information about payments, invoicing, sales and distribution solutions. In Chile, Pro-Chile set up the "Cooperation COVID-19" website with information and resources aimed at promoting exporters. In Costa Rica, the government developed the "Buy-SME" platform targeting businesses without an online presence, a smartphone application to facilitate trade among producers of agricultural, meat and fish products, and public-private partnerships to make four platforms available to SMEs, including guidance on how to redirect sales through online channels and free access to some marketplaces. The Dominican Republic developed a B2B platform to connect firms with foreign potential buyers. Similar examples can be found in Brazil, Colombia, Mexico, Panama, and Peru.

Sources: Part II of this report and UNECA (2021).

Legal and regulatory frameworks

The need to accelerate transactions through digital means during the pandemic illustrated the importance of the regulatory and legal environment that enables them. The impact of the COVID-19 emergency through increased online activity highlighted three relevant areas where regulations can facilitate e-commerce directly:

1. Contracting and payment for electronic transactions.

Without adaptation of the financial system's regulatory framework for enabling widespread adoption of electronic payments and ensuring interoperability across systems and methods, difficulties arise for businesses and consumers to arrange B2C and B2B orders, contracts and payments. In particular, interoperability of financial accounts and regimes is key to facilitate cross-border e-commerce.

2. Cybercrime, data vulnerability and fraud.

Increased online activity during the pandemic led to higher incidents of internet insecurity, data vulnerabilities and fraud schemes. Without an adequate framework for tackling cybercrime and ensuring data privacy and security, both businesses and consumers are exposed to higher levels of risk, which may hinder expansion of e-commerce.

3. Consumer protection.

The pandemic brought new, inexperienced merchants and consumers to e-commerce, and increased the range and volume of electronically traded goods and services. Absence of consumer protection laws that accommodate digital trade can leave e-commerce participants vulnerable to abuse, or simply uncertain about how to proceed when conflicts arise. This can become an acute problem in countries with unreliable postal services or where parcel tracking and last-mile logistics are poorly developed.

Given the considerable amount of time that procedures associated with promoting regulatory changes typically involve, the pandemic period has not witnessed many substantial advances in legal and regulatory frameworks that were not already planned or underway. In some countries, however, existing legislative initiatives were accelerated and progress was made towards

regulatory reforms that can sustain e-commerce development in the medium- to long-term. For example, in Nepal and Cambodia, existing policy frameworks for e-commerce enabled new work on implementation processes and new laws to develop e-commerce. ¹²

Regarding competition and consumer protection, Tunisia issued a decree laying down specific provisions to address violations of competition and unfair pricing during the lockdown period. In Latin America, motivated by increased online sales and growing cases of contractual issues in delivery services, the Chilean Congress started discussing a project aiming to amend existing consumer protection law to include online consumption regulation. Likewise, Argentina incorporated MERCOSUR's 2019 new consumer protection regulation specific to e-commerce to its legal framework (ECLAC, 2021).

In the field of digital payments, important regulatory landmarks to enable interoperability and instant payments between bank accounts were implemented by the Central Banks of Argentina and Brazil.¹³

A number of initiatives in developing countries to ease registration of MSMEs in the e-commerce sector were also implemented, as highlighted in UNCTAD (2020b). In Benin and Iraq, new single-window processes for business registration were launched in order to simplify entry of start-ups in the digital sector.¹⁴ The Government of Myanmar started to develop an e-commerce law and business registration system to level the playing field for MSMEs entering the e-commerce sector.

Skill development

The pandemic tested businesses and consumers' skills and competencies to adapt to a digital environment to a higher bar, and available evidence suggests important skills gaps and shortages operate as obstacles for MSMEs in the e-commerce sector, especially in developing countries. UNCTAD (2020b) finds that 14% of businesses in LDCs had inadequate workforce skills to meet growing demand, and difficulty to find skilled workers on short notice was identified as an important challenge, which was further complicated by precautionary behavior due to COVID-related health concerns. In Mexico, a survey by the Mexican Association of Online Retail found that difficulties to deal with customer service was identified by consumers as the second most prevalent issue when buying online.

To assist MSMEs in their digitalization processes and help them overcome skill shortages and strengthen their online presence, governments implemented initiatives to provide training resources to MSMEs and new e-commerce ventures. In Latin America and the Caribbean, dedicated websites and platforms offering training material at no cost or advertising training solutions were developed by most countries. For

example, SEBRAE, Brazil's agency supporting MSMEs, offered a wide range of resources to train and encourage micro-entrepreneurs seeking to increase their online presence. In Colombia, the "Colombia Starts and Innovates" platform offered tools to boost e-commerce and digital trade in telemedicine and other online health services. In a regional collaboration effort, KOLAU, a digital marketing platform who partners with Google, cooperated with the Organization of American States (OAS) to implement assistance programs for SMEs looking to adapt their business models to digital channels in 10 LAC countries. In Africa, the Government of Senegal has expressed interest in mobilizing support to run an information, education and awareness campaign on the benefits of e-commerce across all segments of population.

Financing

The pandemic reinforced financing bottlenecks among MSMEs, both for firms suffering negative demand shocks and lower income and those experiencing increased demand through online channels. In fact, according to a survey run by UNCTAD among MSMEs in 23 countries in Africa and Asia-Pacific between March and July 2020, 65% of businesses tried to obtain additional financing during the pandemic, but only one out of five were successful (UNCTAD, 2020b).

The crisis affected the availability of alternative sources of financing that MSMEs typically access. Lower income streams from businesses and individuals decreased the capacity of MSMEs to self-finance or resort to other lenders, such as friends or family. The latter includes remittances from relatives living overseas, which represents a significant source of financing for MSMEs in developing countries. World Bank and KNOMAD (2020) suggest that job loss and decreased income among senders of remittances significantly reduced the value of these transactions during the pandemic, and estimate a 20% fall in 2020 compared to previous years.

Still, the most common source of financing among those that were successful in obtaining one was family, friends, or saving groups (35%), followed by banks or microfinance institutions (32%) and private investors (29%). Only 9% of MSMEs who obtained financing received it from public funds.

Government interventions to aid **MSMEs** searching for financing, in the e-commerce sector or more generally, were implemented in some countries by way of grants or dedicated funds. Aid was also channeled through partnerships and associations with the private sector and international organizations. For example, the Argentine government launched a fund to provide financing to MSMEs planning to invest in digital solutions that could reduce costs and allow them to keep operating during the pandemic. In Indonesia, Gojek, an on-demand multi-service platform and digital payment technology group, partnered with the Agriculture Ministry to help local farmers sell online. In Samoa, the United Nations Development Programme (UNDP) and the UN Capital Development Fund (UNCDF) worked with a local technology company to foster the uptake of an e-commerce platform that allows businesses to offer goods and services and receive digital payments.

Women in e-commerce

The pandemic tended to exacerbate existing gender inequalities, as the crisis amplified barriers for women trying to access digital solutions and enter into the e-commerce sector. Women were more exposed to the virus, as they typically work in services activities hard-hit by the crisis, such as food, retail, hospitality, and tourism, and more than 70% of frontline healthcare workers are women. The International Trade Center (2020) found that, even controlling for the distribution of gender across sectors, more women-led firms than men-led firms declared their businesses operations were strongly affected by the COVID-19 crisis (64% vs. 52%).

As women tend to be significantly more responsible for care responsibilities, including childcare, and household obligations, lockdowns and school closures increased women's unpaid workload at home (ITC et al., 2020). Moreover, available evidence suggests that rising domestic violence worsened even more the environment faced by women during the pandemic. ¹⁶

The disproportionately lower access of women to opportunities to participate in the digital economy, including e-commerce, put women at a disadvantage to stay resilient during the pandemic. Women tend to have fewer access to Internet connectivity and digital devices, inferior hardware, and, when connected, make less use of the Internet than men ¹⁷

Relatively few initiatives have been implemented during the pandemic to address women's specific challenges. In general, public-private partnerships and international organizations have been most active in this front through short-term interventions. The supported businesses run by women through various initiatives, such as the Covid-19 Crisis Management Toolkit to help women plan in times of uncertainty, a Resilience and Recovery Action Plan Canvas to help businesses owned by women take quicker and efficient decisions during the crisis, a partnership with the Secretariat for Central American Economic Integration (SIECA) to help women entrepreneurs in Central America increase their online presence and access foreign markets through cross-border e-commerce, and dedicated webinars.18 In Latin America, the BBVA Microfinance Foundation (BBVAMF) partnered with CARE Peru in the context of the EQUALS Global Partnership to offer a program on digital financial education to ensure rural female entrepreneurs have access to basic finance, budgeting, savings and products (Burrelli, 2020). Box 4 includes selected national initiatives in the Latin America and the Caribbean region to support women entrepreneurs in the e-commerce sector.

Box 4. Support for women entrepreneurs during the COVID-19 pandemic in Latin America and the Caribbean.

Colombia

Colombia's action plan to foster the development of the e-commerce sector, outlined in the National Policy for Electronic Commerce released in November 2020, included the identification of opportunities for women in e-commerce, mentioning the eTrade for Women initiative as an example to follow.

Costa Rica

The Ministry of Economics, Industry and Commerce (MEIC), together with the National Institute of Women (INAMU) and the National Learning Institute (INA), launched the "Women and Business 2020" National Program for Women Entrepreneurs (PNME). The program selected 225 women to participate in training and capacity building activities with the aim of strengthening their businesses amidst the sanitary crisis, including access to business networks and practical tools to develop e-commerce strategies.

Mexico

The MSME MX platform, developed by the Productive Development Unit of the Secretariat of Economy, offered information about private sector initiatives to strengthen digital skills of women entrepreneurs, as well as guidance on e-commerce best practices, online security and other tools to ensure business continuity while staying at home.

Source: See part II of this report.

FINAL COMMENTS

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The findings summarized in this part show that e-commerce has given opportunities for businesses to remain solvent during the COVID-19 crisis, reaching new markets and consumers not only at home but also abroad. In developing countries, this crisis represented an opportunity to accelerate a digital transformation process and catch up with more modern business and technological practices, which can increase economic integration, productivity and welfare.

Governments and development partners also had an opportunity to advance on the e-commerce policy agenda, revisiting or updating prior strategies, including the modernization of outdated regulatory frameworks and lowering trade barriers. The pandemic unveiled the importance of assessing critical bottlenecks and challenges identified by UNCTAD and eTrade for all partners to leverage e-commerce for building back a more resilient economy that contributes to sustainable development. These critical areas include the development of e-commerce strategies, infrastructure, payments, logistics, regulation, skills and finance, as well as the role of women, whose needs and interests have often been neglected.

While it remains unclear how persistent changes in business practices and consumption patterns resulting from the pandemic will be, most likely a significant part of the growth in e-commerce will be permanent. However, governments and developing partners should strive to ensure that, going forward, inequalities and negative impacts among those that failed to reap the gains of e-commerce expansion are mitigated and policies are implemented to reduce existing (and resulting) gaps. Addressing remaining barriers and gaps, as well as leveraging benefits, should take a comprehensive and industry-participated approach where actors from the private sector and civil society, can share their needs, knowledge, and experience, coordinated at the national, regional and global levels.

Going forward, governments, businesses, and development partners are encouraged to engage with eTrade for all partners in order to make the most out of the initiative's potential value and synergies, fostering cost-effective interventions while avoiding duplication.

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NOTES

1 See UNCTAD (2021), COVID-19 and e-commerce: A global review, Geneva. The four Commissions of the United Nations are the Economic Commission for Africa (UNECA), Economic Commission for Europe (UNECE), Economic and Social Commission for Western Asia (ESCWA) and the Economic Commission for Latin America and the Caribbean (ECLAC). For more information, see [online] https://etradeforall.org/

2 UNCTAD's B2C e-commerce index is intended to measure an economy's preparedness to support online shopping. It is computed as the average of four indicators with wide country coverage: (1) account ownership at a financial institution or with a mobile-money-service provider (% of the population aged 15+); (2) individuals using the Internet (% of population); (3) a postal reliability index; and (4) secure Internet servers (per million people). The index is highly correlated with the share of people shopping online, with an adjusted R squared value of 0.8. See UNCATD (2019a) for additional information about sources and methodology.

3 By the end of March 2020, more than one hundred countries worldwide had instituted full or partial lockdowns (Dunford et al., 2020). Arnon et al. (2020) estimate that, for the U.S. voluntary social distancing, rather than stay-at-home restrictions, was responsible for most of the reduction in social contacts through April 2020.

4 In Peru, regional restrictions on delivery services and other regulations have been identified by Bravo Tejeda (2020) as leading to an initial decrease in online sales, which PayU (2020) recorded at 32% during March. In Colombia, Colombian Chamber of E-Commerce and Ministry of Information and Communication Technology (2020a, b) suggest that uncertainty regarding isolation policies negatively affected activity on e-commerce platforms. In Africa, transactions on the financial payments company Paystack contracted for a short period of time after lockdowns were implemented in the countries where it operates (UNECA, 2021).

5 Between 20% and 30% of consumers also reported buying online less frequently in these countries, which suggests a heterogeneous response across population groups, possibly because of income shocks.

6 Usage of Mercado Libre's digital wallet between the last week of February and the last week of April increased 71% for utility payments and 66% for transfer services, and thehe number of businesses using PayU in six LAC countries increased 40% in the first half of 2020.

7 Countries surveyed included Italy, South Africa, Germany, Turkey, the Russian Federation, China, the Republic of Korea, and Switzerland.

8 According to the ITU, online gaming in the United States grew 400% while, in Chile, the Undersecretariat of Telecommunications, Subtel, estimated that internet traffic associated with gaming services increased 315% during the March-July period, compared to 2019. In Argentina, internet traffic for gaming services through the Flow platform doubled during the first week of the quarantine compared to an average day, and increased 69% on average for March-June.

9 For example, governments in virtually all regions have reached agreements with streaming and video platforms, such as Netflix, Amazon Prime, and YouTube, to limit the quality of video-streaming services in order to reduce network congestion.

10 According to Kantar's COVID-19 Barometer, in April 2020, on average 70 per cent of users in Argentina, Brazil, Chile, Colombia, and Mexico indicated that they would continue to use electronic payments beyond the pandemic emergency. See Mercado Libre (2020).

11 By mid-April, the World Bank had identified 53 policy measures implemented in 35 countries to support and facilitate the use of digital payments in response to the COVID-19 pandemic. See https://www.worldbank.org/en/country/russia/brief/covid-19-response-digital-payments-russia.

12 In 2019, Nepal adopted a national e-commerce strategy and Cambodia enacted its e-commerce law. See UNCTAD (2020b).

13 In Brazil, the Central Bank launched Pix, an interoperable instant payment scheme. In Argentina, the Central Bank launched the Transfers 3.0 system to allow immediate transfers between bank accounts, waiving fees for MSMEs during the first three months and capped thereafter.

14 See https://unctad.org/news/new-system-boosts-ease-doing-business-iraq.

15 UN Women (2020) finds that the rate of COVID-19 infections among female health workers was twice that of their male counterparts in some counties.

16 See UN Global Compact (2020), Women's Empowerment Principles (2020), World Bank (2020), UN Women (2020), and Perez-Vincent et al. (2020).

17 ITU (2019) estimates that the global gender gap in Internet access is 17%. Ssemuwemba (2020) reports that women are 30% to 50% less likely than men to use the Internet to increase their income or participate in public life. See also Bandyopadhyay and Grollier (2018), UNCTAD (2019b), and GSMA (2020).

18 See [online] https://www.shetrades.com/en/covid-19 and https://www.intracen.org/noticias/El-ITC-y-la-SIECA-firman-un-memorando-de-entendimiento-para-conectar-mujeres-centroamericanas-con-mercados/.



PROGRESS AND CHALLENGES IN E-COMMERCE AND DIGITAL TRADE IN LATIN AMERICA AND THE CARIBBEAN DURING THE COVID-19 PANDEMIC



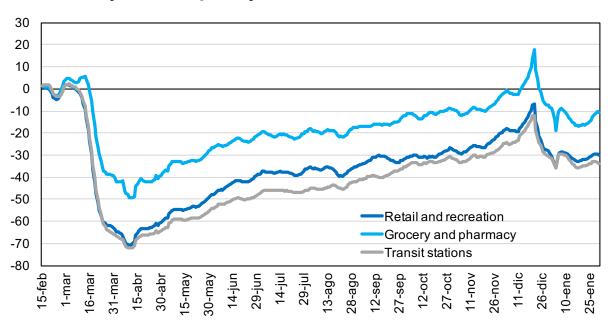
INTRODUCTION

5

As the COVID-19 virus spread throughout Latin America and the Caribbean (LAC) during the first semester of 2020, people's social distancing and public containment measures drastically reduced mobility and economic According to Google's community mobility data, by the first week of April 2020 visits to "retail and entertainment" and "grocery and pharmacy" establishments were down 70% and 45% compared to mid-February, respectively. Mobility gradually recovered during the course of the year and peaked around Christmas. However, as the second wave of COVID-19 contagion unfolded by the end of January 2021, mobility in these two categories was still 30% and 10% below baseline, respectively (Figure 1). Drops in production and sales led to temporary and permanent firm exit.¹⁹ International transport and logistic networks were greatly disrupted, which significantly

affected cross-border trade flows. During the second quarter, the employment rate fell by 10 percentage points and regional unemployment increased from 8.9% in 2019 to 11% in 2020. Unemployment, inactivity, fewer hours worked, and the consequent fall in income could further deteriorate poverty to 37.3% of the LAC population by the end of the year. Merchandise exports from the region, which had already deteriorated in 2019, fell 3.5% in the first quarter and 27.5% in the second, compared to 2019, and service exports are estimated to have contracted 29.5% during the first semester of 2020, the first negative variation since 2015. Overall, economic activity in LAC may experience the largest drop in history and fall 9.1% in 2020, taking the region's GDP per capita 10 years back to 2010 levels.²⁰

Figure 3 Average daily mobility change from pre-pandemic baseline, Latin America and the Caribbean, February 15, 2020 to January 31, 2021.



Note: series are 7-day centered moving averages of daily changes. Source: author based on Google LLC "Google COVID-19 Community Mobility Reports". https://www.google.com/covid19/mobility/. Accessed: February 18, 2020.

Businesses and consumers shifted massively to digital and online channels to circumvent social distancing measures, continue business operations, secure sources of income, and remain solvent during the crisis. E-commerce and digital trade transactions increased significantly, as did the number of people buying online, with associated changes in consumption patterns and business models.

In this context, this report aims to better understand the impact of the pandemic on domestic and cross-border e-commerce and digital trade in LAC. The report identifies policies and initiatives that could support countries to strengthen their use of e-commerce and digital trade as a contributor to the recovery in a pospandemic scenario, and ultimately to long-term, inclusive and sustainable economic development.

The report first reviews the main trends in e-commerce and digital trade both before and during the first semester of 2020, focusing on businesses' operations and changes in consumer behavior and consumption habits. The lack of comprehensive, systematic, and consistent (official) data on e-commerce in the region, especially cross-border, represents a major challenge to performing a robust assessment of e-commerce trends during the pandemic. To circumventthis, the report draws on available data from international organizations, government agencies, industry participants, and local business associations. This evidence suggests that e-commerce and digital trade penetration in the region jumped years forward in a few months, accelerating a digital transformation process which was in place, although advancing at a much slower pace. Available data suggest that this response was much stronger in domestic markets and more nuanced, or even negative, for cross-border merchandise e-commerce, however.

The report then studies whether the increased reliance on e-commerce and digital trade faced bottlenecks and what are the implied challenges that they present to governments and the industry in the region. Aided by interviews with relevant industry stakeholders and policy makers, and an analysis of available data and reports, it finds that, despite opening promising opportunities for the expansion of e-commerce in the region, the pandemic has indeed unveiled important barriers to growth. Most importantly, these challenges are not new, but rather are long-pending assignments which have hindered growth in the last decade. Increasing the penetration, quality, and affordability of internet connectivity, improving trade facilitation and the efficiency and capabilities of logistic networks and services and those of regulatory entities, reducing informality to broaden access to electronic payment methods as well as improving interoperability for cross-border payments, and strengthening businesses' e-readiness, including those of women entrepreneurs, present fundamental challenges for governments and industry going forward.

With these challenges in mind, the report turns to an analysis of public policy responses amidst the COVID-19 pandemic. To varying degrees and with heterogenous capacity to respond, governments in LAC have supported firms and consumers to strengthen business continuity and resilience. Ensuring digital and physical connectivity, increasing the availability of digital tools, and fostering the uptake of digital technologies, the adoption of new working and

business practices, and the development of digital skills and abilities are the most salient domains where countries have taken actions. Measures to expand the coverage and lower the cost of internet connectivity, dedicated websites with information, resources, and training for strengthening MSMEs' online presence, and removal of requirements to facilitate cross-border trade of essential products were some of the most popular policy responses taken by governments.

While this immediate response has been widespread, there are important differences in the extent to which policy responses are embedded in medium-term national strategies to develop e-commerce and digital trade, based on a regional digital market. In some countries there is a clear, consistent, and coordinated strategy from which policies derive, which organizes how challenges are addressed. In these cases, the pandemic has precipitated progress in some policy domains, bringing the government and private stakeholders around common and welldefined goals. In most, however, an effective strategy is not apparent, and policies seem uncoordinated, the result of urgency and the need to respond to the emergency, which casts doubt on their potential to generate effective long-term changes and reform.

These challenges have been highlighted in the Digital Agenda for Latin America and the Caribbean (eLAC2022), specifically objectives 27 and 28, adopted during the seventh Ministerial Conference on Information Society in Latin American and the Caribbean in November, 2020. Goal 27 in the agenda establishes the need to promote a strategy to develop a regional digital market as part of regional and sub-regional

integration mechanisms, in order to facilitate cross-border e-commerce and digital trade through integration of digital infrastructure, regulatory harmonization, free flow of data, trade facilitation, improved postal and logistics services, and regulatory frameworks that encourage innovation in digital payment services. Goal 28 identifies the need to promote greater regional coordination and digital integration with a common vision and goals, considering dialogue and coordination with other organizations (ECLAC, 2020e).

Having reviewed ongoing efforts, observed gaps are identified where effective responses and concerted actions might be needed, and suggestions are made regarding avenues to implement them. Specifically, the report suggests concrete and actionable immediate and medium-term outcomes towards a more inclusive digitalization in the region, showcasing best practices when available.

Throughout the report, the terms "e-commerce" and "digital trade" are used interchangeably, with the understanding that they refer to purchases of physical goods as well as intangible (digital) products and services conducted over computer networks, using multiple formats and devices, such as the world wide web, personal computers, or mobile devices, among other devices.21 However, the report, as far as it is concerned with recent developments brought about by the COVID-19 pandemic and their implications, focuses implicitly and mostly on domestic and cross-border B2B, B2C, and C2C transactions, many of which are intermediated by platforms, marketplaces, or online stores. In this respect, a comprehensive analysis of recent trends, challenges, and policies related to knowledgeintensive business services and associated telework arrangements is beyond the scope of this document.

The rest of the document is organized as follows. The next chapter presents main pre- and during COVID-19 trends in e-commerce and digital trade. Chapter 3 identifies bottlenecks and challenges that countries in the region have faced. Chapter 4 describes policy responses observed in the region to harness e-commerce and digital trade amidst the crisis. Chapter 5 concludes with recommendations going forward targeted to governments and development partners.

RECENT TRENDS

6

This chapter reviews main trends in digital trade and its enabling environment in the LAC region during the years before the COVID-19 pandemic, and after the outbreak of the virus during the first semester of 2020.²² In general, comprehensive, systematic, and consistent statistics on e-commerce in the region, especially cross-border, is scarce. Even indicators that describe the enabling environment for e-commerce (e.g., digital and physical connectivity, financial inclusion), which are available for most countries, are based on survey data with differing methodologies and coverage, and are not necessarily comparable. Therefore, this chapter is based on sometimes imperfect proxies that, taken together, can provide a partially complete overview of the evolution of e-commerce before and during the pandemic.

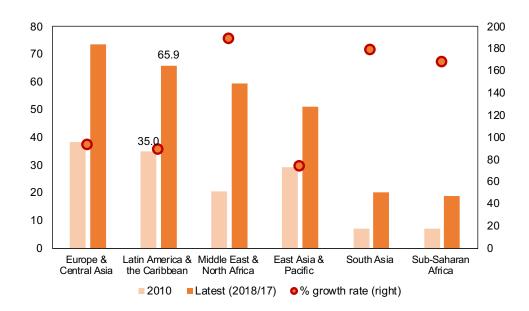
Trends pre-2020 in Latin America and the Caribbean

In the last decade, internet penetration in the LAC region increased significantly. The percentage of individuals using the internet increased 90%, reaching 66% (Figure 2, panel A). LAC also showed a relatively high mobile penetration rate, with more

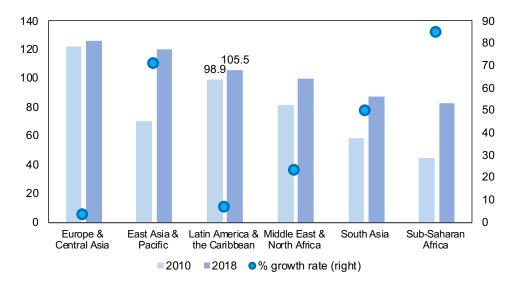
than 100 subscriptions per 100 people, although about 15% below the levels shown by Europe and Central Asia and East Asia and the Pacific (Figure 2, panel B).

Figure 4 Evolution of connectivity in LAC and other regions, 2010-2017

Panel A: individuals using the internet (% of total population).

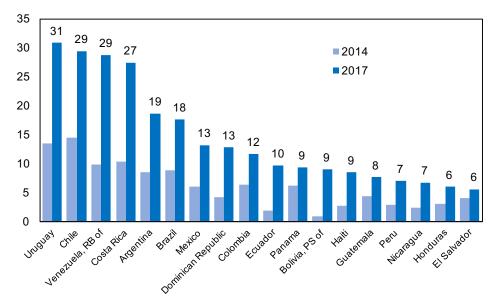


Panel B: mobile subscriptions (per 100 people).



Source: Author based on World Bank. For Panel A, latest available data for East Asia & Pacific and Sub-Saharan Africa are for 2017.

Figure 5 Share of the population that payed bills or bought something online, selected LAC countries, 2014-2017.



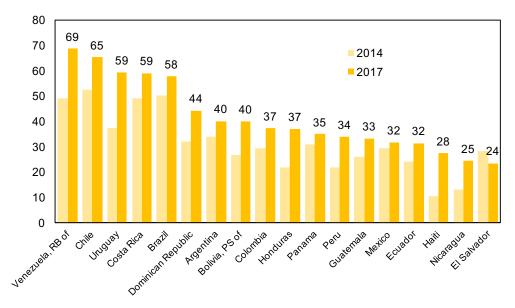
Source: Author based on World Bank Findex Global Database.

Increased connectivity has supported sustained e-commerce and digital trade growth in the years prior to the pandemic (Figure 3). From 2014 to 2017, the share of the population aged 15 or more that paid bills or bought something online more than doubled in most LAC countries.²³ The highest increases were seen in those countries whose initial shares were the lowest, like Bolivia, Ecuador, and Haiti, where it increased from 1-3% to 9-10%. But even in countries where penetration was the highest, like Uruguay (13%), Chile (15%), and Costa Rica (10%), the share of people buying online reached almost 30% in 2017. More modest progress was experienced by Panama (from 6% to 9%) and El Salvador (4% to 6%). Although at lower growth rates, given initially higher penetration, digital payments have also grown considerably, most notably in Central American countries, with the exception of El Salvador (Figure 4).²⁴

Growing e-commerce activity during the years before the pandemic is also reflected in the growth of parcel shipments, both domestically and cross-border. According to data from the Universal Postal Union (UPU), the number of parcels shipped through domestic postal services grew exponentially in the last 20 years, increasing 14% per year on average (Figure 5).²⁵ Although at much lower volumes, cross-border shipments showed a significant increase as well.²⁶ Most of the increase in international postal service over the last 20 years, however, can be attributed to receipt shipments (imports). While e-commerce has boosted imports, the region as a whole has not been able to take advantage of this new technology to increase exports. ²⁷

Digital trade of services grew slightly higher than the world average, but the region's growth was below the average for developing economies and transition economies. The region's exports of digitally deliverable services grew at an average compound rate of 8% between 2005 and 2018 (UNCTAD, 2019b), reaching USD 57.2 billion in 2018. Within the region, Brazil, Argentina, and Costa Rica have been the best performers in terms of growth of exports of ICT services and services potentially enabled by ICTs in the last years (ECLAC, 2018).

Figure 6 Share of the population that received or made digital payments, selected LAC countries, 2014-2017



Note: as a % of the population aged 15 or more.

Source: Author based on World Bank Findex Global Database

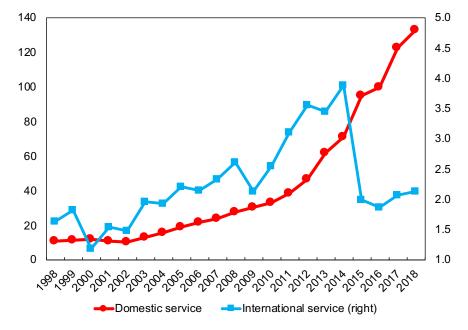
Despite this enormous growth, the latest available data show that e-commerce penetration remained significantly lower than the OECD average before the pandemic.

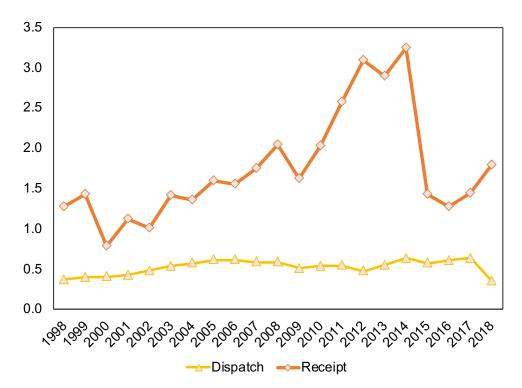
The average share of internet users shopping online in LAC reached 15.5% in 2017-2018, less than a quarter of the average penetration in the OECD (Figure 6, A).²⁸ Moreover, there were significant differences across countries. In Brazil

and Chile, around 35% of internet users shopped online, while in Bolivia (Plurinational State of), El Salvador, Guatemala, Haiti, Honduras, Nicaragua, and Peru, less than 10% did. While some of these differences reflect differences in GDP per capita, some countries like Argentina, Dominican Republic, Mexico, Panama, and Trinidad and Tobago have lower shares than would be expected given their GDP per capita (Figure 6, B).

Figure 7 Parcels shipments in the LAC region, 1998-2018 (millions)

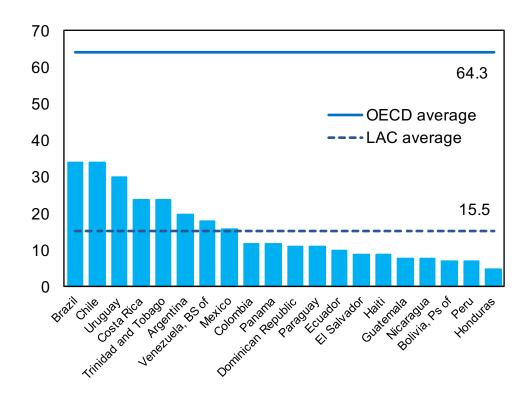
Panel A: domestic and international service



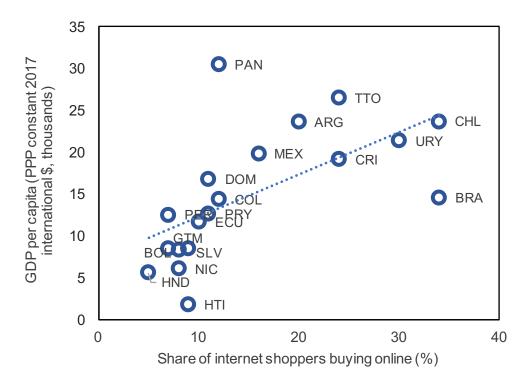


Note: regional aggregates for receipts shipments were aggregated from individual country data, since regional aggregates are not available from the UPU. Missing and/or confidential country-specific data may introduce slight deviations from actual regional aggregates. For international service data (Panel A), there are missing and non-available data starting in 2015 for several countries, which may substantially underestimate actual shipments. Source: author based on data from the Universal Postal Union.

Figure 8 Internet users shopping online, selected LAC countries, latest available data. Panel A: share of internet users shopping online, LAC



Panel B: share of internet users shopping online and GDP per capita, LAC



Note: latest data correspond to 2017 or 2018, depending on the country. The OECD average excludes Chile, Colombia, Costa Rica, and Mexico.

Source: UNCTAD (2019a) based on official sources and FINDEX database; GDP per capita is from the World Bank World Development Indicators.

B2C e-commerce sales data suggest that the participation of LAC in global e-commerce remains marginal. Giordano (2017) reports that B2C sales in the region reached US\$ 47 billion in 2015, increasing 24% from 2014. This implied a 2% share of the global B2C market for LAC, well below its participation in global merchandise trade (6%). Kantar (2017) estimated that the online value share of the total fastmoving consumer goods (FMCG) 29 market for Argentina, Brazil, Chile, Colombia, and Mexico in 2017 was 0.2%, compared to 6.5% for Asia, 5.6% for Europe, and 1.5% for the U.S. Finally, latest available data from 2018 show Mexico and Brazil were among the top-20 economies with highest value of B2C e-commerce sales, recording US\$

26 billion (2.1% of GDP) and US\$ 15 billion (0.8% of GDP), respectively (UNCTAD, 2020). Mexico's and Brazil's sales represented 1.9% and 1.1%, respectively, of China's B2C sales, which led the 2018 ranking.³⁰

Recent 2020 trends amidst the COVID-19 pandemic

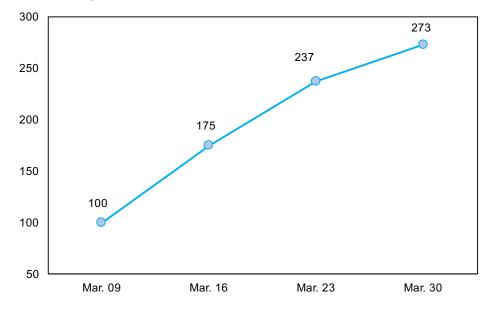
Online sales and e-commerce penetration

Early on after the first confirmed cases in late February and early March, online sales increased throughout the region and accelerated in the following months, as containment measures, non-pharmaceutical interventions, and consumers' preventive behavior implied only essential shopping was done outside people's homes in physical stores. According to data from Kantar Worldpanel, e-commerce penetration in Latin America increased by 173% during March (Figure 7)31 and a study by Visa Consulting and Analytics documented an acceleration of e-commerce transactions using debit and credit cards in the LAC region, as the ratio of online to in-person purchases by Visa card holders was 6 times higher

in May compared to January-February (Visa, 2020b). ECLAC (2020c) reports that between the first and the second quarters of 2020, internet traffic in e-commerce websites increased 157%.³²

Data from Mercado Libre also show a significant increase in e-commerce activity³³ in that marketplace, consistently for all countries in which it operates. New seller registrations multiplied by about 4 between August 2019 and August 2020 in the largest markets, especially those in which Mercado Libre had a weakest presence, such as Colombia and Venezuela, and by a factor of 6 in smaller markets, predominantly in Central America and most notably Costa Rica and the Dominican Republic (Figure 8). Average searches by users in the region increased almost 40% between the last week of February and the last week of May, with a 17% increase

Figure 9 Evolution of e-commerce penetration in Latin America during March (index March 9, 2020=100)



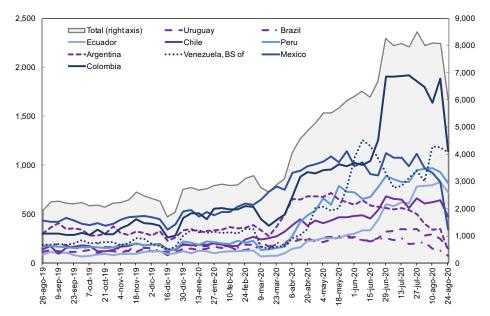
Notes: e-commerce penetration is defined as the percentage of households who have shopped online at least once in a given period.

Source: Mercado Libre (2020a) based on Kantar Worldpanel

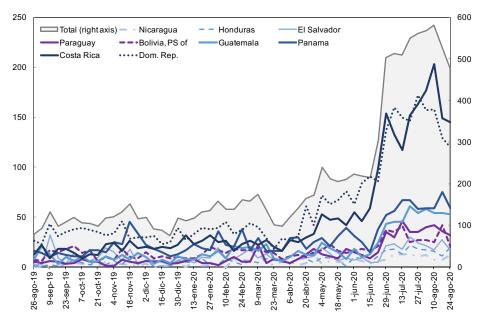
61

Figure 10 Registration of new sellers in Mercado Libre during the COVID-19 outbreak.

Panel A: Weekly registrations of new sellers in largest LAC markets, Aug 2019-Aug 2020



Panel B: Weekly registrations of new sellers in smallest LAC markets, Aug 2019-Aug 2020



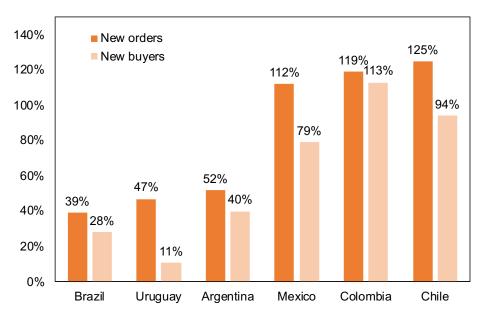
Source: ECLAC (2021).

in the length of online sessions (Mercado Libre, 2020a). This resulted in high year-on-year growth of e-commerce orders in that marketplace across countries in this period, from 39% in Brazil to 125% in Chile (Figure 9, Panel A). Gross merchandise volume sold through Mercado Libre grew strongly in the second and third quarters (Figure 9, Panel B), reaching USD5.9 billion during the third quarter, and items sold surpassed 200 million (+110% year-on-year) (Mercado Libre, 2020b). Sales by businesses

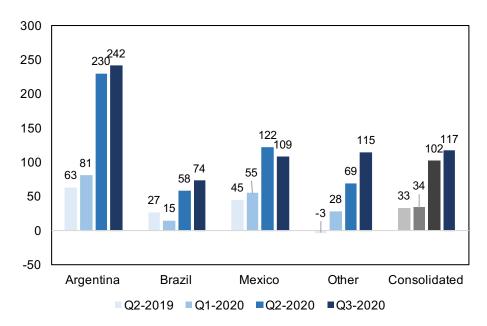
using PayU, a multinational fintech company operating in Argentina, Brazil, Chile, Colombia, Mexico, Panama, and Peru, increased 8% in March (yoy) and quickly accelerated to 68% in June, with some countries showing sales growth rates twice as high (Figure 10).

Figure 11 Growth in Mercado Libre's activity during the COVID-19 outbreak.

Panel A: change in orders and buyers (Feb-May 2020, yoy)



Panel B: change in gross merchandise volume (yoy)

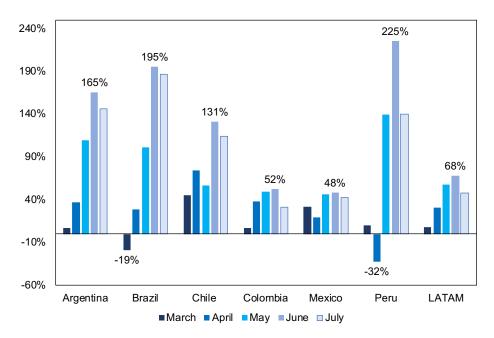


Note: new orders and buyers from Feb. 24 to May 03 2020 compared to the same period in 2019. Gross merchandise volume represents real sales net of foreign exchange rate variations. Source: Mercado Libre (2020a,b).

Apart from large platforms and marketplaces like Mercado Libre, the pandemic motivated increased online presence among smaller sellers and brick and mortar shops in the region. As governments throughout the region updated their knowledge about the virus and extended containment measures and stay at home recommendations, businesses understood

the importance of setting up or increasing their online presence to take advantage of commercial opportunities and better capture a latent, and sometimes more selective demand. According to data from the Big Data for the Digital Economy in Latin America and the Caribbean project (ECLAC, 2020c), between April and May 2020 business websites increased 800% in Colombia

Figure 12 Annual (yoy) growth in online sales of businesses with PayU during the COVID-19 outbreak.

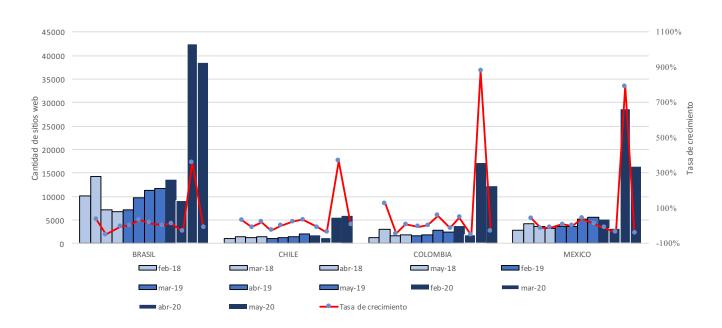


Source: PayU (2020).

and Mexico and around 360% in Brazil and Chile (Figure 11). In particular, transactional websites and e-commerce platforms showed the highest growth rates in April 2020, recording between 250% and 500% growth compared to 2019. Consistent with this, the number of new products

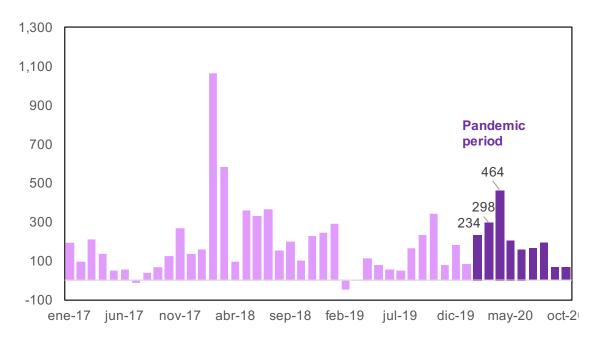
offered online by MSMEs using the Shopify app in these countries increased 234%, 298%, and 464% in February, March, and April 2020, respectively, compared to the same months in 2019 (Figure 12).

Figure 13 New business websites in selected Latin American countries, 2018-2020.



Source: ECLAC (2020c) based on data from Dataprovider.com.

Figure 14 Annual growth in new products offered online by MSMEs using Shopify, Jan-2017 – Oct-2020.



Notes: Data correspond to MSMEs in Brazil, Chile, Colombia, and Mexico. High growth rates during February and March 2018 reflect spikes in the number of products in Mexico and Brazil, respectively. When computing the normalized growth rate of the number of new products, which controls for initially low levels, the annual growth rate during this period is quite stable around 140%. Source: Based on data from ECLAC (2021).

Evidence from surveys performed by domestic e-commerce associations among SMEs selling B2C and B2B is also revealing about the shift to online channels. In Argentina, Chile, and Mexico, characterized by relatively high e-commerce penetration, online sales grew strongly during the first half of 2020, along both the extensive and the intensive margins. That is, more SMEs started selling online and the share of online sales among SMEs with physical stores more than doubled.

The extent to which countries enforced stricter containment measures, or uncertainty regarding them, may have affected the dynamism of e-commerce during the first weeks of the pandemic. For example, Peru restricted most e-commerce activity during March and April, which led to a fall in sales. In Colombia,

initial uncertainty regarding how isolation policies would affect platforms also impacted negatively on online sales and transactions for some businesses. Box 1 presents a more detailed description for selected countries.

Box 1 E-commerce activity from the perspective of local business organizations in selected countries

Argentina

Data from the Argentine Chamber of E-Commerce (CACE) for the first half of 2020 show 63% annual growth in real online sales, with 30% growth in orders and 14% higher traffic, reflecting a more intensive use of e-commerce. In particular, the share of online sales among brick and mortar shops more than doubled between the first and second quarters of 2020, from 18% to 49%. Moreover, 20% of orders came from new customers, mostly related to mobile phones, restaurants delivery, and food and beverages.

Chile

According to a report by the Santiago Chamber of Commerce, debit and credit card purchases in online stores were up 100% by the beginning of April and 214% one month later, compared to declines of 31% and 21%, respectively, for brick and mortar shops. This implied a three-times increase in the share of sales done through e-commerce, from 5% in May 2019 to 16% in May 2020.

Colombia

Estimates from the Colombian Chamber of E-Commerce and the Ministry of Information and Communication Technologies suggest that e-commerce declined initially due to uncertainty regarding how isolation policies would affect economic activity and e-commerce platforms, and recovered as businesses and platforms understood measures and uncertainty dissipated. During the last week of March compared to the last week of February, online sales fell 47% and the value of the average purchase decreased 33%, reflecting a more than proportional decline in high value transactions associated to airline travel and tourism. In the weeks that followed, e-commerce grew sharply to reach 90% of the pre-pandemic levels by the first week of May, both in terms of sales and the value of the average purchase, and mostly propelled by B2C operations. B2B sales decreased 80% initially, and recovered growing only by 30% between March and May.

Ecuador

Data from the Ecuadorian Chamber of Commerce suggests that, although traffic and conversion rates increased during the COVID-19 outbreak, more than 80% of firms reported lower sales or no sales at all, attributed to higher unemployment, uncertainty, and consumers shopping essential items only. 16% of firms reported that they would start selling online as a result of the pandemic.

Mexico

The Mexican Association of Online Shopping (AMVO, 2020) reported that the fraction of SMEs selling online almost doubled by mid-2020 compared to mid-2019 and reached 64%, with 90% of them also selling through other channels. Almost 40% of surveyed firms reported experiencing more than 10% growth in online sales and, out of SMEs selling online, 18% started this channel because of the COVID-19 pandemic. Moreover, whereas only 24% of firms derived more than 20% of sales through online channels before COVID-19, 45% of firms expect to reach this threshold after COVID-19.

Peru

Regulations and conditions imposed by the Peruvian Ministry of Production initially caused a decrease in e-commerce operations, estimated at 32% (yoy) during March according to PayU (2020). Firms wanting to operate online during the pandemic needed to meet a 2% minimum share requirement of online over total sales, and were required to deliver goods using their own logistics, not being able to use third-party delivery services nor platforms. Online sales were also limited to the Lima Metropolitan region, leaving out 40% of e-commerce activity in other regions.

Consumption patterns and consumers' behavior

Behind the evolution of e-commerce and digital trade activity presented above lie significant changes in online consumption patterns. Lockdown policies, non-pharmaceutical interventions, and fear from contagion kept people at home, and consumers changed their shopping behavior. As people substituted away from traditional physical channels, not only the frequency with which consumers searched and bought online increased, but also the basket of goods and services that a typical consumer used to access through online channels changed. The socioeconomic profile of online consumption changed as well, with lower income households showing higher growth rates during the pandemic.

According to Visa, 20% of cardholders did e-commerce transactions for the first time

during the first quarter of 2020 in the LAC region, implying more than 13 million new online consumers. Related surveys run in Argentina, Brazil, Chile, Colombia, the Dominican Republic, Mexico, and Peru, consumers perceived online channels to be safer and healthier (Visa, 2020a).

During late February and May 2020, Mercado Libre's activity in 5 major Latin American economies experienced a 49% year on year increase in the number of consumers shopping on that marketplace, totaling almost 5 million new consumers (Table 1). In Argentina, Brazil, Colombia and Mexico combined, in only 8 weeks, growth more than doubled the annual increase in new consumers during 2019. PayU clients in the region saw a 75% increase in the number of online customers in the first half of 2020, from an average of 5.1 million consumers per month in February-March to 8.9 million consumers in July (PayU, 2020).

Table 1
Mercado Libre's new consumers during the first weeks of the COVID-19 pandemic

Total	3,449,947	4,986,404	45
Uruguay	55,786	61,922	11
Chile	128,103	248,520	94
Colombia	171,876	366,095	113
Argentina	492,867	690,014	40
Mexico	568,958	1,018,435	79
Brazil	2,032,358	2,601,418	28
	Feb-May 2019	Feb-May 2020	Percentage increase

Notes: period covered is from Feb. 24 to May 03 2020 and 2019. Source: author based on data from Mercado Libre (2020a).

In Argentina, data from CACE (2020) shows that 8% of Argentines bought online for the first time during the quarantine imposed by the government, especially younger people and from lower income levels.

For Brazil, survey data show that 66% of internet users bought products and services online during the COVID-19 outbreak, compared to 44% in 2018 (CGI, 2020). While all age, income, and education groups showed significant increases, the increase was especially pronounced among lower income groups, where the share shopping online more than doubled (18% to 44%), and middle-aged people (46% to 76%). Moreover, while on average 2% indicated that they would do shopping only through the internet after COVID-19 (5% for those aged 16-24), 17% indicated they would shop online more than in physical stores.

In Mexico, AMVO (2020b) showed that around 20% of consumers reported that they would shop more online than before, the main reasons being staying at home because of the pandemic, avoiding crowds, and the need to have goods delivered at home.

In contrast with most countries for which studies or surveys are available, in Uruguay, where the COVID-19 pandemic appears to have been controlled quite rapidly since the beginning of the outbreak, relatively few cases were confirmed, and lockdown policies were less strict, a survey done by the Uruguay Digital Economy Chamber (2020) among internet users showed 71% of people did not change their shopping habits because of the pandemic, and 58% answered that they either did not shop online or shopped the same as before the pandemic.

Regarding the basket of goods and services traded online, available evidence suggests consumption habits evolved in different stages following the spread of the virus and the extension of containment measures.

During the first weeks after the first cases were reported in the region, consumers were drawn to essential health care related items, such as face masks, hand sanitizers, and thermometers. As weeks went by and community spread increased, confirmed cases picked up, and restrictions to mobility were implemented, consumers started switching to groceries, food and beverages,

computer items and electronics, personal care items, furniture, and, goods related to sports and fitness, replacing traditional physical channels with online shopping.

In Brazil, for instance, the share of internet users purchasing pharmaceutical and health products online increased from 15% in 2018 to 31% in 2020 (CGI, 2020). Food and beverages and personal care items also showed similar patterns, increasing from 22% to 54% and from 25% to 44%, respectively, in the same period, consistent across all age and education groups.

Data from Mexico also support this pattern. Data from AMVO (2020b) show that, while during the first weeks of the pandemic food and medicines were identified as the most popular categories chosen by consumers online (64% and 43%, respectively), three months later technology (41%), fashion (29%) and personal care (22%) replaced these as the most popular categories. Traffic in marketplaces associated with sports was stable until April, when it started to increase, peaking at +200% compared to February during the end of May Hot Sale, and stabilizing at +92% by the end of June.

Services bought online showed differential effects, naturally reflecting the extent to which they are associated with tourism and other activities that require some amount of mobility, or with entertainment, given staying at home policies and school closures. Based on data from Similarweb. com for Argentina, Brazil, Chile, Colombia, and Mexico, ECLAC (2020c) estimates that online education, video and audio streaming, and online banking increased 62%, 12% and 7%, respectively, between the first and the second

quarter of 2020, while travel and tourism and hospitality fell 83% and 7%, respectively, in the same period. In Brazil, one of the few countries for which detailed data are available, survey data show that the share of internet users that bought airline tickets online fell 65% compared to 2018, and that of those booking accommodation through well-established platforms fell 41% (CIG, 2020). On the other hand, services associated with entertainment and education increased markedly, such as enrollment in paid courses (+68%), music streaming services (+59%), or video streaming services (+26%). Data from PayU (2020) is also consistent with this trend, showing average growth rates of streaming services of 100% in March through July compared to 2019.

Delivery services are perhaps the ones that experienced the highest growth during the outbreak of COVID-19. Even if these services have been growing consistently in the last 5 years, with the entry of new regional platforms such as Glovo, Pedidos Ya, Rappi, and UberEats, their activity increased sharply in the first semester of 2020, as they proved to be essential to allow consumers to shop and businesses to remain active while maintaining health and safety protocols. Figures vary depending on the source and country coverage, going from +157% between the first and second quarters of 2020 (ECLAC, 2020c), to +755% in June-July compared to the same period of 2019 (PayU, 2020).

Cross-border e-commerce and digital trade

Latin America and the Caribbean was the region most affected by the COVID-19 in terms of international trade flows. Demand contraction in the region's main trading partners and disruptions in global value chains weighed heavily on LAC's exports, which contracted 27.5% in the second quarter of 2020 with respect to 2019 and 16% year-on-year in the first semester, led by lower exported volumes. Imports also contracted significantly due to lower economic activity, and were down 17.1% year-on-year during the first semester.34 In particular, COVID-19 implied a massive shock to buyer-seller relationships, significantly affecting trade along the extensive margin relatively more than the intensive margin (Carballo and Volpe Martincus, 2020a).

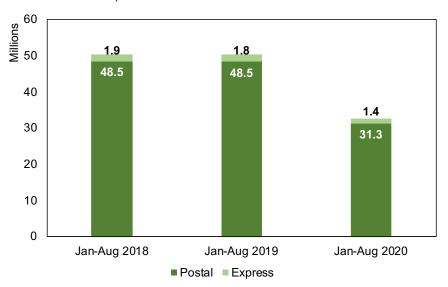
Exports of services from the region were relatively more affected than merchandise trade. Regional services exports are estimated to have fallen 11.5% and 50% year-on-year during the first and second quarters of 2020, respectively .35 The contraction of tourism and travel services consistently across the region was the most important driver of services exports. In the first quarter of 2020, regional exports of travel services shrank 17.4% year-on-year (ECLAC, 2020b) and cumulative international tourist arrivals during January-May of 2020 fell by 45% in South America, 50% in the Caribbean, 34% in Mexico and 46% in Central America (UNWTO, 2020).

Preliminary data suggest a negative impact of the pandemic on cross-border merchandise e-commerce activity during the first half of **2020.** Official statistics with high frequency data on cross-border e-commerce and digital trade are readily available only for a few countries in the region. Those countries where customs data are available or surveys have been performed show a decline in cross-border digital trade in goods. In particular, postal shipments seem to have been more affected than express shipments.

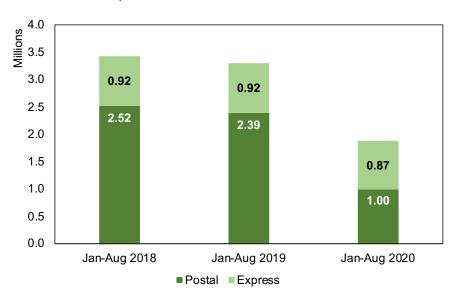
In Brazil, e-commerce imports and exports declined significantly during January and August. Customs data show that cumulative imported and exported shipments between January and August 2020 fell 35% and 43%, respectively, compared to the same period of 2019 (Figure 13). Postal and express imported shipments were similarly affected (-35.4% and -21.6%, respectively), and postal kept a 96% share of total shipments. For exports, however, postal shipments were more affected than express and their share fell from 72% in 2019 to 53% in 2020, reflecting a 58% decrease of postal vis à vis a 4.5% decrease for express. In a similar vein, a study by the Brazilian Association of E-Commerce (ABCOMM, 2020a, 2020b) analyzing more than 50 million orders between March and June 2020 found that purchases of bazaar products and articles imported from China fell 30% between February and June 2020, by far the largest drop, followed by auto parts (-8.4%) and bookstore products (-4%).

Figure 15 Total merchandise shipments by e-commerce operators, Brazil, January-August 2018 to 2020

Panel A: e-commerce merchandise imports.



Panel B: e-commerce merchandise exports.



Source: Special Department of Federal Revenue of Brazil, Ministry of Economics.

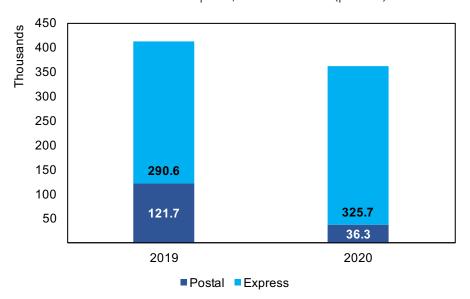
Data for Uruguay also show an overall decline of cross-border e-commerce below de minimis levels during 2020 led by a decline in postal shipments, while express shipments increased. Customs data show that imported shipments below the de minimis threshold during 2020 decreased 12% compared to 2019. Carballo and Volpe-Martincus (2020b) show that the decline can be traced to a decrease in the number of buyers, while those that remained active bought relatively more. Two phases can be identified in Uruguay, with a sharp decline

concentrated in January-April and a recovery in the second semester.³⁷ Different from Brazil, however, whereas postal shipments fell 70% during 2020, express shipments increased 12% and were responsible for the recovery after April (Figure 14). In fact, imports of express parcels surpassed pre-pandemic levels during the second semester of 2020 and in January 2021 were 39% higher than a year before.

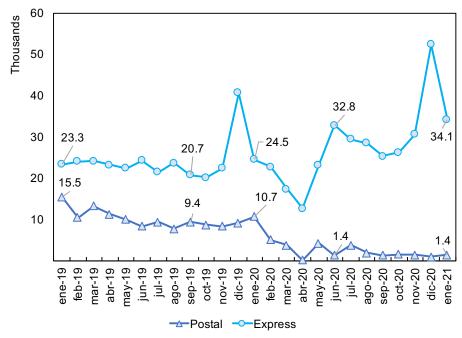
While fewer consumers buying in foreign marketplaces may have contributed to lower cross-border e-commerce, the major factor that affected cross-border merchandise e-commerce during this period was the disruption in air and maritime transport in the region. Travel restrictions impacted both passenger and cargo flights, although the former were naturally the most affected. According to data from ICAO, total passenger and cargo

flights originating in the LAC region between January and August 2020 were down 53% and 3%, respectively, compared to 2019³⁸. As panel A of Figure 14 shows, passenger flights fell consistently for all countries in the region except for Anguilla.³⁹ Since much of the cross-border flow of merchandises originating in e-commerce transactions is transported in passenger flights, this created a major decrease in cargo capacity and contributed to the decrease in cross-border e-commerce flows and longer delivery times.

Figure 16 Imported merchandise shipments below de minimis levels, Uruguay Panel A: Cumulative e-commerce merchandise imports, 2019 and 2020 (parcels)



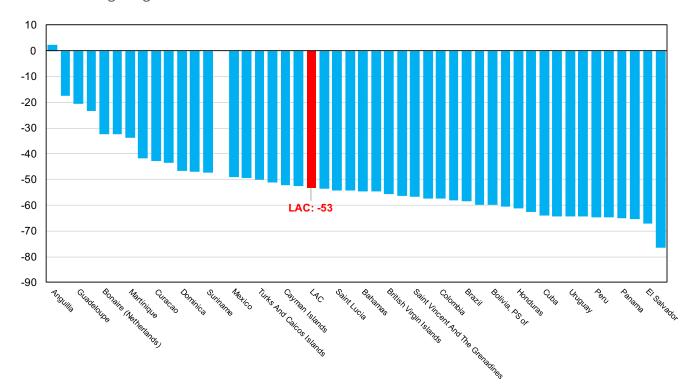
Panel B: Monthly e-commerce merchandise imports, Jan-2019 to Jan-2021 (parcels)



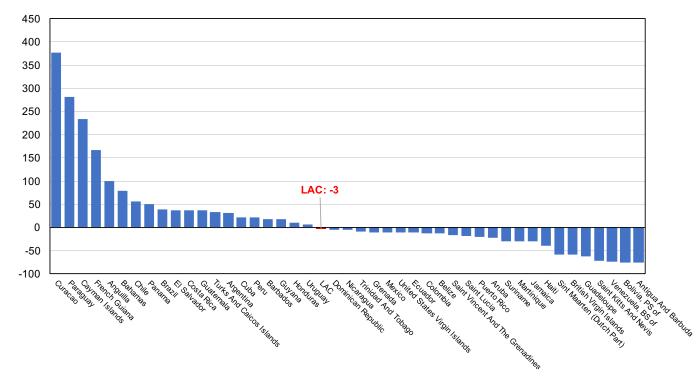
Source: author based on data from the National Customs Directorate of Uruguay.

Figure 17 Operational impact on international air transport, LAC countries (Jan-Aug 2019-2020, % change)

Panel A: Passenger flights



Panel B: Cargo flights



Notes: % change in the number of total international flights originating in the LAC region between January-August 2019 and 2020.

Source: author based on data from ICAO and ADS-B Flightware.

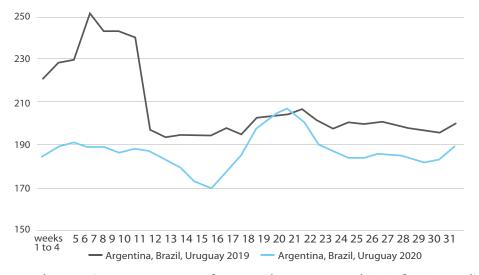
Cargo flights, on the other hand, showed a heterogeneous response to the pandemic across countries in the region, which seems to have been due to national circumstances rather than common sub-regional patterns.

On one end of the spectrum, cargo flights increased between 50% and more than 300% for Curação, Paraguay, Cayman Islands, Chile, or Panama; on the other end, they decreased more than 50% for the British Virgin Islands, Venezuela, Bolivia or Antigua and Barbuda (Figure 15, panel B). Moreover, in Argentina, Brazil, Chile and Colombia, freight ton kilometers fell 46% in May (y-o-y) compared to a 62% global decline (ECLAC, 2020b). While the volume of freight transported by air decreased less in the region given its lower dependence on air logistics, part of this response also had to do with the shift in transport mode for essential products such as face masks. Essential health products were typically shipped through containers by sea. Due to the emergency, these goods had to be shipped though air freight, reducing cargo capacity for non-essential

products.

The fall in maritime transport activity reduced cargo capacity even more for non-essential products. Data from container port calls for Argentina, Brazil, and Uruguay suggest that maritime transport decreased significantly early in January through April, and started to recover to 2019 levels by May 2020 (Figure 16). The impact on maritime container trade, however, took longer to show than in other regions, and fell for the first time in April (-16.6%), accelerating in May (-20.9%) (Table 2). In turn, container port activity showed a moderate 0.8% decline on average, although with significant heterogeneity across ports in the region, as other operational and trans-shipment movements compensated the decrease in containerized international trade. 40

Figure 18 Weekly container ship port calls, Argentina, Brazil and Uruguay, 2019 and 2020 (four-week moving average)



Note: Data reports the moving average over four weeks, up to week 31 of 2020 ending on 2 August. Source: UNCTAD calculations, based on data provided by MarineTraffic. Includes all vessel arrivals of container ships of 5000 Gross Tons and above.

Table 2 Latin America: Year-on-year percentage change in international maritime trade by container, January-May 2020

	January	February	March	April	May	January-May
North America	3.1	2.9	2.5	-16.6	-20.9	-6.1
Europe	-0.5	-6.8	-3.2	-15.5	-17.3	-8.8
Far East	0.9	-3.9	-1.8	-16.3	-14.6	-7.3
Indian subcontinent	2.3	-12.4	-6.1	-13.8	-6.0	-7.0
and Middle East	3.5	6.5	-3.4	-27.6	-21.2	-8.9
		-				
World	1.8	6.2	3.9	-15.9	-11.4	-7.3

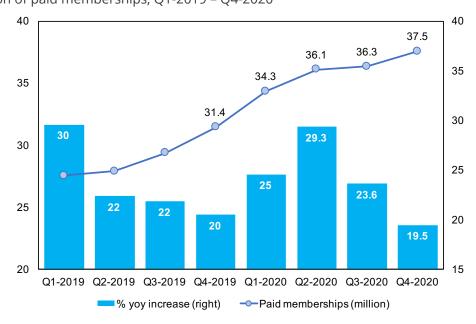
Source: ECLAC (2020b) based on information from Container Trade Statistics (CTS).

The differential response of cargo and passenger flights is also related to the different impact suffered by postal and express operators. Given that express operators typically operate their own fleet to ship goods in the region, they were less affected by the fall in passenger flights and managed to maintain and, in some cases, due to the increase in cross-border trade of essential health-related items, increase their operations during the pandemic.

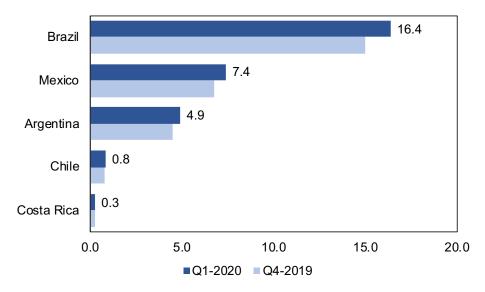
With more people at home due to lockdown policies, consumption of entertainment and other digital services showed a sharp increase. Part of these services involved cross-border flows of data

and content between domestic consumers and foreign platforms, contributing to an increase in cross-border digital trade during the pandemic. Consistent with the 100% average monthly growth rate of streaming services for the Mach-July period by PayU users reported above, in the first half of 2020 Netflix added 4.7 million new users in the region, doubling the corresponding figure for the first half of 2019, and an additional 1.5 million in the second semester (Figure 17). In Brazil, the fraction of users who paid for movie streaming services increased from 34% during 2018 to 43% during the pandemic period.

Figure 19 Netflix: Memberships of streaming services in Latin America Panel A: Evolution of paid memberships, Q1-2019 – Q4-2020



Panel B: Estimated memberships by country, Q4-2019 – Q1-2020 (in millions)

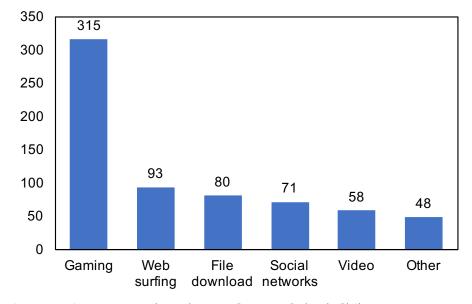


Source: Netflix letters to shareholders and estimates from Moody (2020).

Data from Argentina and Chile suggest that the increase in other cross-border digital services, such as video games, was strong during the second quarter as well. In Chile, according to official data from the Under-secretariat of Telecommunications (Subtel), internet traffic associated to gaming services increased 315% during the March-July period, compared to 2019 (Figure 18). For Argentina, the private streaming platform Flow reported that internet traffic for gaming services increased 100% during the first week of the quarantine in March, compared to

an average day, and 69% on average for March-June (Hecker, 2020). Moreover, the platform registered a decrease of occasional games (i.e. Candy Crush) more than compensated by an increase in "gamers" games (i.e. games that are played during a sustained period time, usually in groups and that may include competition, like FIFA or Call of Duty). Traffic not only increased through the use of consoles, like PlayStation (+183%), but also through online streaming platforms like Mixer (+173%) and Twitch (+159%).

Figure 20 Percentage increase in internet traffic by use, Chile, March-July 2020 vs 2019



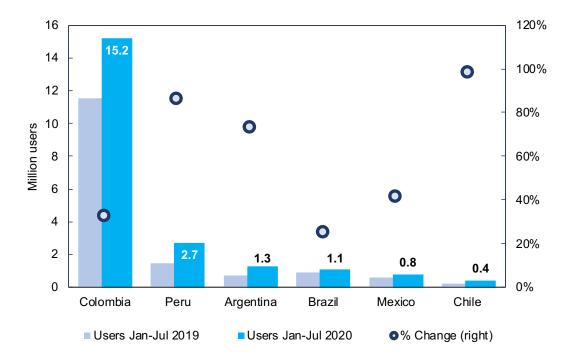
Note: percentage increase in consumed terabytes. Source: Subtel, Chile

Payment methods

The use of electronic and digital payment methods seems to have become more widespread during the COVID-19 pandemic. In addition to being a complementary technology to online consumption, electronic payment systems, especially non-traditional ones, such as virtual wallets, also became more attractive, as they offered a convenient and safe method to pay utilities and to reduce physical contact and the probability of contagion in brick-andmortar shops. Some marketplaces also offered financing and credit lines through their digital payment systems and were an accessible way of smoothing expenditures for consumers who suffered negative income shocks and were outside the traditional banking system.

Moreover, financial support by governments during the emergency may have contributed to higher financial inclusion. Data from Mercado Pago, Mercado Libre's digital wallet, show that between the last week of February and the last week of April, usage of the app's utility payment service increased by 71%, transfer services increased by 66%, and loading funds to the app increased 21%. Consistent with this, the number of businesses using PayU in six LAC countries increased 40% in the first half of 2020, reaching 21.5 million users (Figure 19).

Figure 21 PayU's growth in the LAC region during the COVID-19 pandemic



Source: PayU (2020).

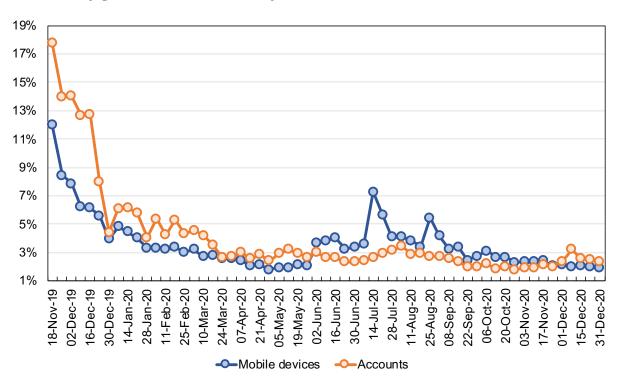


Figure 22 Weekly growth of CoDi's activity, Nov. 2019 - Dec. 2020

Notes: only accounts with at least one payment transaction are considered. CoDI downloads to mobile devices include both iOS and Android devices.

Source: author's calculations based on CoDI publicly available daily data.

The evolution of electronic payment methods usage not only depends on the willingness of consumers to adopt this new technology and develop a peer-to-peer (P2P) segment, but also on the acceptance by businesses to develop the peer-to-merchant (P2M) segment.

Heterogeneity in the level of penetration in both segments may have caused different levels of effective adoption of specific applications across countries during the pandemic. In Mexico, for example, the number of total mobile devices that installed CoDi, Mexico's Central Bank's digital payment application, showed weekly growth rates above 15% shortly after it was released in September 2019, and decelerated gradually through April 2020. It accelerated slightly during May, coincident with the hot sale (May 23 to June 1), and only picked up again in July and August,

due to aggressive campaigns by local banks offering integration with the app. CoDi accounts which made at least one payment showed a similar trend initially, but however did not follow the behavior of mobile downloads later on, reflecting limits in how many businesses actually accepted payments with the app (Figure 20).

CHALLENGES

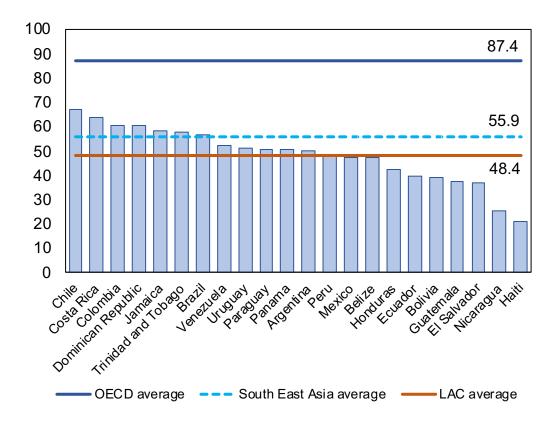
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This chapter focuses on main challenges that emerge as priorities to structure the discussion about policies to enable LAC countries to better harness e-commerce and digital trade in a post-pandemic recovery. Except for financing, which appears to be a challenge that will affect developing countries more generally, beyond e-commerce, the identified challenges are coincident with 6 of the 7 areas emphasized by the eTrade for all initiative, namely ICT infrastructure and services, payments, trade facilitation and logistics, legal and regulatory frameworks, skills development, and e-commerce strategy. ⁴¹

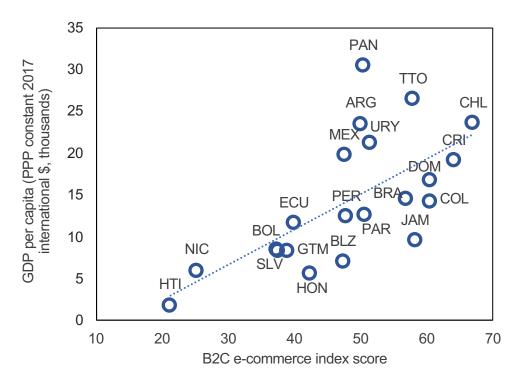
The accelerated process of digital transformation during the pandemic was key for allowing business continuity and strengthening business resilience during the crisis, but it tested the region's digital capabilities to a higher bar, unveiling fundamental bottlenecks along several dimensions. As we have shown in the previous chapter, the pandemic and its associated containment measures have accelerated existing growth trends in e-commerce and digital trade in the region during the first semester of 2020. However, overcoming persistent bottlenecks constitutes a major challenge for the sustainability of e-commerce and digital trade growth in LAC countries going forward. More importantly, these challenges are not new in the face of COVID-19, but were implicit in assessments of the region's e-readiness prior to 2020. In fact, according to

UNCTAD's B2C e-commerce index, in 2019 the average score for LAC countries was 45% lower than the OECD average, and 13% lower than the average of South East Asian countries, reflecting a lag in terms of readiness to engage in and benefit from e-commerce (Figure 21).⁴² Moreover, no LAC country made it to the top-10 ranked developing economies (UNCTAD, 2019a).

Figure 23 UNCTAD's B2C e-commerce index, LAC countries, 2019Panel A: index score



81



Notes: higher values indicate better readiness to engage in and benefit from e-commerce. The OECD average excludes Chile, Colombia, Costa Rica, and Mexico. Source: Based on UNCTAD (2019).

Internet connectivity

As businesses and consumers shifted to online activities, including for entertainment, shopping, administrative procedures, health services, and telework, internet traffic increased sharply. According to data from MCD, internet traffic during March in Mexico, Brazil, and Chile increased by around 70%, 80%, and 170%, respectively, compared to the previous month. In Argentina, the Argentine Internet Chamber reported an increase of 25% in March and, for Telecom Argentina, international internet traffic increased 50% in only 10 days.

Increased consumption of traditional online content or activities coincided with changes in usage patterns. As we showed in the previous chapter, not only people increased the consumption of traditional online content or

activities, such as shopping online or video and music streaming, but usage patterns changed, with people substituting physical formats for virtual ones, such as videoconferences, cloud services, online education, and telemedicine. Assia reported that global upload traffic in PC and mobile phones during March, after the implementation of most containment and social distancing measures, increased 80% (CAF and ECLAC, 2020). The location of the demand for internet connectivity also shifted, as now people performed these activities mostly from home, away from the office, universities, or cafes and restaurants.

These created significant challenges for internet service providers to ensure quality and reliability of internet connectivity. According to speed and latency data from Ookla for Brazil, Chile, Ecuador, and Mexico, during March broadband internet networks suffered increased volatility and lower

quality (Table 3). Data from KASPR for the region also reflect speed losses between February and March, during the first weeks of containment measures, although with significant heterogeneity across countries (Figure 22). Brazil, Dominican Republic, and Uruguay were mostly unaffected, while Colombia and Mexico showed more difficulties, specially in some regions.

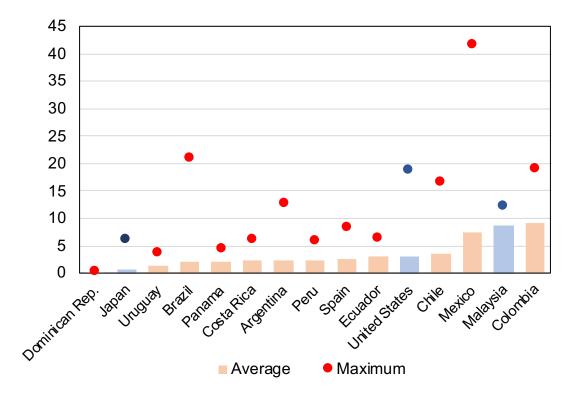
Broadband download speed during the first semester of 2020 may have also limited the range of products and the quality of experiences that consumers can access through digital channels. As of June, 44% of LAC countries showed fixed broadband download speeds below 25Mbps and 33% below 18.5Mbps (ECLAC, 2020c). These speeds prevent performing two high-demand online activities simultaneously, implying that, for instance, users in a given household could

not be teleworking and taking online courses simultaneously.

Not only low quality of internet can prevent the expansion of digital trade to education and health services, which can consolidate exclusion, especially among low income populations in poorly served region. This situation can also be especially detrimental for those producing in niche sectors where the region could find opportunities to engage in e-commerce (both domestic and cross-border), from craftworks, to creative industries, gaming, professional and business services, and other knowledge intensive services.

Pre-pandemic indicators that describe internet penetration and digital connectivity in LAC show that the region lags behind with respect to other

Figure 24 KASPR Datahaus Global Internet Pressure, Feb-Apr 2020



Note: internet pressure is calculated as the percentage change in return trip time of internet packets traveling between the US and destinations, for connected fixed internet devices. Averages and maximum speed computed over each country's regions.

Source: author based on KASPR Datahaus' Global Internet Pressure Map.

Table 3
Internet performance, selected LAC countries Feb. – Mar. 2020

	Brazil	Chile	Ecuador	Mexico
Average fixed broadband download speed (Mbps)				
Feb. 2020	52.6	93.0	27.4	36.6
Mar. 9 week	57	110	23	39.5
Mar. 16 week	55	89	21	39
Mar. 30 week	54	90	22	39
Fixed broadband latency (ms)				
Mar. 9 week	17	21	17	27
Mar. 16 week	19	24	19	28
Mar. 30 week	19	25	19	29
Average mobile broadband download speed (Mbps)				
Feb. 2020	24.1	19.5	20.7	27.0
Mar. 9 week	25	20	20	29
Mar. 16 week	25	17	21	29
Mar. 30 week	23	16	19	29.5
Mobile broadband latency (ms)				
Mar. 9 week	48	40	38	50
Mar. 16 week	48	46	38	51

Source: CAF and ECLAC (2020) based on data from Ookla/Speedtest.

regions, with significant heterogeneity among the countries. The COVID-19 pandemic being an unexpected shock with massive disruption in economic activity and behavior, we should not have expected a smooth response of telecommunication networks. However, the region faced important bottlenecks regarding digital connectivity before the pandemic. Internet penetration in the region reached 67% in 2017, although with significant differences between countries and between urban and rural areas. Whereas in urban areas most countries show penetration rates above 60% or 70%, in rural areas the percentage of the population connected to internet is at most 50%,

averaging around 10% in Bolivia (Plurinational State of), El Salvador, Honduras, Paraguay, or Peru (CAF and ECLAC, 2020; ECLAC, 2020c). Moreover, internet penetration in LAC shows high inequality across income groups, with the first (lowest) quintile reaching half as much penetration as the fifth quintile in those countries with low differences, and one fifth less penetration in most countries. ⁴³

Low penetration rates in rural areas and among low income households pose significant barriers to the expansion of e-commerce and its potential to be inclusive. In principle, people in rural areas and belonging to low income groups could exhibit high expected marginal returns from access to digital markets. For producers, because of increased access to more markets and higher income consumers in larger cities, including the advertisement and sales of tourism services, and for consumers, to more variety and lower prices from increased competition. ⁴⁴

Even for those regions with high penetration rates, the region showed a significant lag in broadband connectivity speed. In 2019, LAC's speed was well below that of more developed countries, like the United States and the Republic of Korea, and below the world average. Moreover, the growth rate between 2018 and 2019 was also below the world's average (CAF and ECLAC, 2020). Moreover, the uptake of 5G networks is expected to be slow in the region.

Access to digital devices is also unequal in the region, especially among households with different income level and cultural backgrounds. While more than 70% students in high income households have laptops at home, only between 10% and 20% of students from the lowest income quintiles have these devices.

Finally, affordability of internet services represents a challenge for the inclusive expansion of e-commerce in the region. As of 2019, the average cost of fixed and mobile broadband internet services for 11 countries in the region represented 12% and 14% of the first (lowest) quintile income level, respectively, well above the 2% 2025 target set by the Broadband Commission for Sustainable Development to be classified as affordable (ECLAC, 2002c). In some countries, such as Bolivia (Plurinational State of), Colombia, and El Salvador, the cost of mobile broadband services exceeds 20% of the first quintile income level.

Trade facilitation, logistics, and regulatory environment for cross-border digital trade

The pandemic created major disruptions in the administration of international merchandise trade flows and the supply of logistic services, including postal and express services. The change in the composition of goods transported through each transport mode generated a challenge for customs and border authorities in the region, as well as for related government certification agencies and entities, especially health entities, for processing trade flows, including risk assessment and release procedures. In conversations with logistics operators in the region, they remarked that, as consumers changed consumption habits and patterns, and businesses shifted from B2B to B2C business models, express couriers started to ship non-traditional goods, which required certifications and implied additional security checks and inspection, creating challenges for authorities. Certifications from third parties, such as for food, medicine, and medical devices, created bottlenecks and, in many countries in the region, governments had to waive them temporarily to accelerate release procedures, especially for essential health products, as we will describe in the next chapter. These issues were exacerbated in some countries by lack of personnel availability due to safety protocols, which created bottlenecks in those countries where digitalization and automation of risk assessment and release processes were not fully in place. Certainly, automation, agile processing of increased (and more diverse) e-commerce traffic, and agreements for data interoperability, while preserving security with effective risk assessment procedures, represents a challenge for customs and border agencies and postal operators.

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In Brazil, customs operators in Viracopos, the main processing hub for express shipments in the country, performed inspections through digital means due to stay at home measures which prevented them from being physically present in customs facilities. Moreover, while the designated postal operator had 100% electronic information, lack of agreements prevented it from sharing information with other entities through the single window.

In Uruguay, expedited release of essential items motivated increased controls and inspections, which were complemented with posterior audits to operators responsible for e-commerce, which led to an increase in confiscations.

All these disruptions impacted heavily on the time for clearing and releasing items through customs, increasing delays. Global data from UPU (2020) show that the average time for customs and border clearance for inbound parcels increased by 97% from late January to mid-April 2020, with a spread from 2 to 64 hours. Moreover, the ratio of stranded mail, which is indicative of the probability that exports will not arrive to their final destination, reached its historical maximum in April 2020 and was 136% higher than the baseline for 2019. Although regional data is not available to assess how the region was affected along these dimensions, data from the pre-pandemic period suggest that the region may have suffered and will continue to face significant challenges beyond the COVID-19 outbreak.

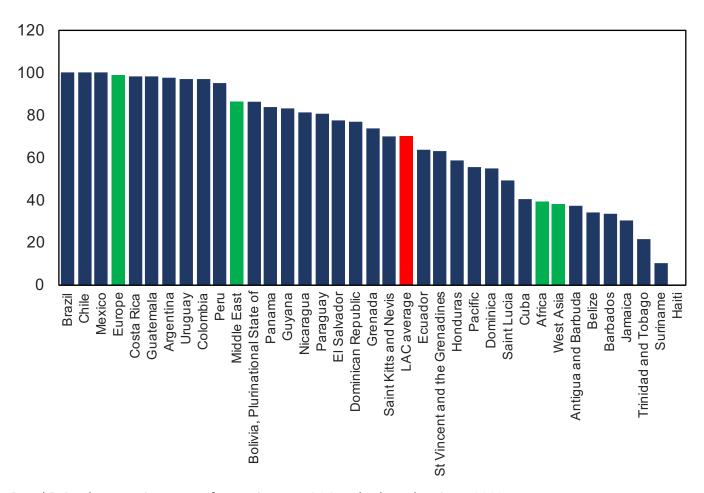
Before the pandemic, high processing times and the cost of customs and border agencies procedures represented an important barrier for firms involved in international trade (Suominem, 2019). Giordano (2017) reports that more than 30% of LAC exporters who participated in the ConnectAmericas platform considered insufficient logistics capacity and

costly customs regulations as significant barriers to trade. In 2016-2017, small firms identified customs procedures for e-commerce imports as the dimension with lowest quality among factors influencing the environment for cross-border e-commerce (ECLAC, 2018). The challenge to reduce the time and costs associated to export and import processes not only involves simplifying customs procedures, but re-engineering and automation of border processes more generally, including coordination amongst agencies. As CONPES (2020) clearly illustrates for Colombia, "there exist institutional coordination failures, reflected in how different inspections are coordinated for the same customs operation by different agencies" which can cause delays and "affect the value proposition of e-commerce" (p. 52).

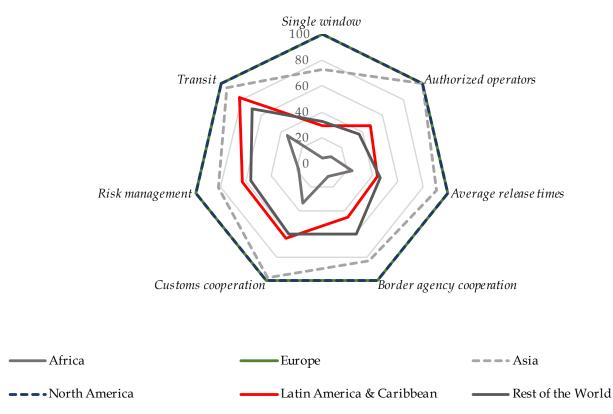
Despite considerable advances in trade facilitation in the last 20 years, especially in light of the implementation of the WTO Trade Facilitation Agreement, LAC still lags behind other regions. LAC countries have made substantial reforms to facilitate cross-border trade since the late 1990s, including in the areas of risk management, cooperation between customs agencies and private operators, electronic single windows and transit systems (Volpe Martincus, 2016). However, compared to Asia, North America, and Europe, in 2019 the region lagged behind the most precisely in those areas which could unlock greater e-commerce growth, namely average release times, border agency coordination, electronic single windows, risk management, and authorized operators (Figure 23). 45

Figure 25 Implementation rates of the WTO Trade Facilitation Agreement

Panel A: implementation rates, LAC countries and selected regions, 2020



Panel B: implementation rates of commitments, LAC and selected regions, 2019



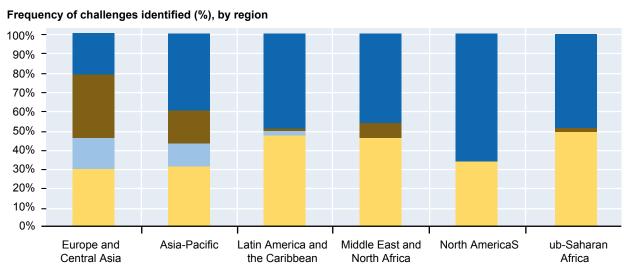
Source: Panel A, author based on WTO. Panel B, Mesquita Moreira and Stein (2019), based on countries' self-reported data provided by WTO.

Even where single windows are in place, the pandemic highlighted that procedures associated with cross-border e-commerce are mostly manual and paper-based, and full integration in electronic single windows has **not yet been achieved.** In many countries express and postal operators are not yet recognized as actors in single windows and there is a lack of data sharing and interoperability among regulatory agencies, express operators, and the postal service. 46 All of these factors effectively increase the cost of performing risk assessments and negatively affect the efficient management of cross-border e-commerce. Implementation of most of these measures requires investment in sophisticated ICT infrastructure and skilled personnel, as well as extensive coordination and collaboration between agencies and among countries. 47

Logistics and last mile operations seem to have been particularly challenging for LAC during the pandemic due to restrictions and delays. According to information provided by logistics operators between February and May 2020, disruptions experienced due to limitations in personnel availability or transportation bottlenecks, as well as last mile delivery restrictions and delays, were identified as the most challenging issues in the LAC region for trading parcels across borders (Figure 24). Apart from lack of personnel due to stay at home measures implemented by customs agencies, anecdotal evidence for selected countries is consistent with this pattern. For example, AMVO (2020b) reports that 54% of consumers in Mexico declared experiencing some kind of trouble when shopping online during May and June 2020, with long delivery times as the most prevalent issue (identified by 35% of consumers), followed by difficulties to deal with customer service (23% of consumers). In Argentina, news reported significant delays in delivery times and poor customer service at the Argentine Post, with people having to queue in stores to pick up and drop packets. 48

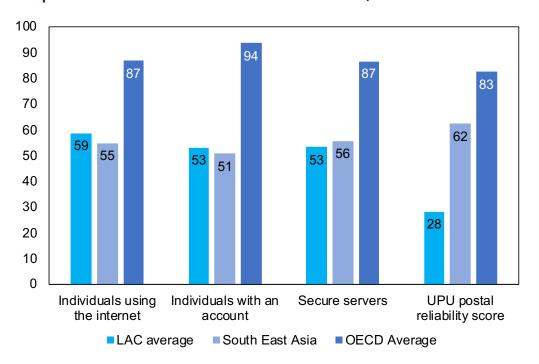
Figure 26 Challenges in shipping parcels internationally during COVID-19

- Transit: Network capacity Limitations
- Transit: Restriction on type of shipments (e.g. weight, size, prodcut type)
- At the border: Delays associated with specific controls / new protocols / volume increase
- Last mile: Restrictions on specific georgraphic routes / delays



Source: OECD (2020b) based on based on information reported by LetMeShip from carriers shipping internationally between February and May 2020, https://www.letmeship.com/en/corona-and-logistics-current-information-from-the-carriers/

Figure 27 Components of UNCTAD's B2C e-commerce index, 2019



Notes: The OECD average excludes Chile, Colombia, Costa Rica, and Mexico.

Source: UNCTAD (2019a).

The weak performance of the postal service is one of the most critical aspects of the region's preparedness to engage in e-commerce. Of the four components that make up UNCTAD's B2C e-commerce index, postal reliability was the area in which the region underperformed the most in 2019, significantly below the OECD and South East Asia averages (Figure 25). The region also showed significant heterogeneity across countries, with Colombia recording a score only 8% lower than the OECD and Argentina, Bolivia (Plurinational State of), Belize, Uruguay, and Venezuela (Bolivarian Republic of), showing scores more than 80% lower (Figure 26). Behind this indicator are persistent barriers in access to postal services. Estimates based on UPU official statistics for 2019 indicate that, in LAC, almost 10% of the population did not receive mail at home, and 5.3% of the population did not have access to postal services, compared to 1% and 0%, respectively, in industrialized economies

(Table 4).

To illustrate some of the underlying bottlenecks of postal services in some countries in the region, consider Table 5, which presents selected services offered by postal services in the Pacific Alliance. As of 2018, the postal service in Chile, Mexico and Peru did not offer on-demand delivery, storage, nor packaging, and Mexico and Peru did not offer on-demand pick-up, label printing, nor information about taxes in other countries.

Table 4
Access to postal services (% of the population)

	Without postal services	Having mail delivered at home	Having to collect mail from a postal establishment
Europe and CIS	0	98.5	1.5
Industrialized countries	0	99.3	0.7
Asia and the Pacific	1.6	96.7	1.6
Arab region	2.5	83.1	14.4
Latin America and the Caribbean	5.3	90.3	4.4
Africa	12.6	15.8	71.5
World	2.4	90.6	7

Source: UPU (2020b), from estimates based on UPU statistics for 2019.

Technology adoption in postal services remains an important area where LAC lags behind other regions. Consistent with the evidence showed above, a 2017 study by the UPU about digital postal services showed that LAC lagged behind the adoption of the latest technologies that can play an enabling role for the growth of e-commerce. Compared to other regions in the world, LAC had the lowest number of postal operators offering electronic services through smartphone applications, and the lowest percentage of operators with an application programming interface (API), both of which limit the extent to which e-commerce can scale up in the region (Error! Reference source not found.). Based on these and other indicators, UPU (2020a) concluded that the five most important challenges for postal services in the LAC region

were the lack of IT infrastructure, insufficient investment resources, long transition to a digital culture, customs clearance, and e-merchants using their own delivery networks.

Table 5
Selected services and value added offered by postal services in the Pacific Alliance, 2018

	Chile	Colombia	Mexico	Perú
Scheduled pick-up	Yes	Yes	Yes	Corporate
				clients only
On-demand pick-up	Registered	Main cities only	No	No
	clients only			
Delivery service	Yes	Yes	Yes	Yes
On-demand delivery	No	Yes	No	No
Storage	No	Main cities only	No	No
Packaging	No	Main cities only	No	No
Online printing of shipping and	Yes	Corporate clients	No	No
return labels		only		
	Yes, at addi-	Yes	Yes, at addi-	Yes
Online tracking	tional cost		tional cost	
	(no real time tracking)			
Online import taxes and value	Yes	Information only	No	No
added tax in other countries				

Source: author based on IDB data.

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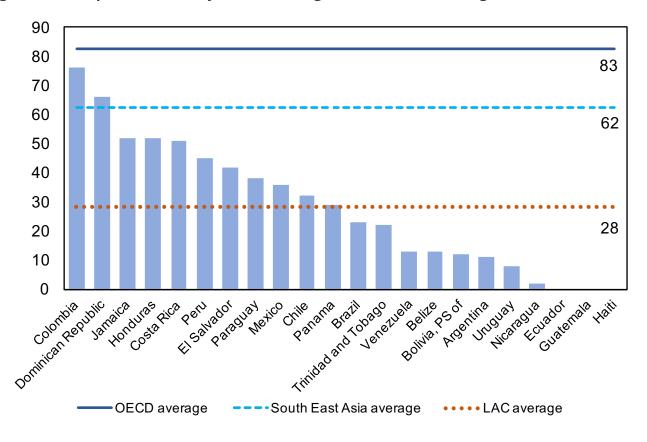
Restrictions to digital trade persist especially in countries with large domestic e-commerce

markets. According to the Digital Trade Restrictiveness Index (DTRI)⁴⁹, the region shows substantial heterogeneity regarding restrictions to cross-border digital trade. Brazil, Argentina, Ecuador, and Mexico are above the world average, Paraguay and Colombia are close to the average, and Chile, Peru, Costa Rica, and

Panama are among those countries with fewer restrictions in the world (Figure 27, panel A). Trading restrictions and barriers to market access appear as the most pressing restrictions (Estevadeordal et al., 2020). In particular, among the former, some of the regions' largest domestic e-commerce markets perform poorly in terms of online sales and transactions (Figure 27, panel B). Out of 65 countries, Argentina ranks 2nd and is the most restrictive country for online sales and transactions in the world after China, and Brazil follows closely in the 4th place. On the other end of the spectrum, Panama is one of the least restrictive. Access to online content, on the other hand, is relatively unrestricted in general and less heterogeneous across countries in the region. 50 The OECD's Digital Services Trade Restrictiveness

Index also points to persistent restrictions to digital services trade.⁵¹ Argentina, Brazil, Chile, and Colombia are among the most restrictive and above the OECD average, while Costa Rica shows the lowest score in the sample; Mexico equals the OECD average.

Figure 28 UPU postal reliability score, LAC region, latest available figure.

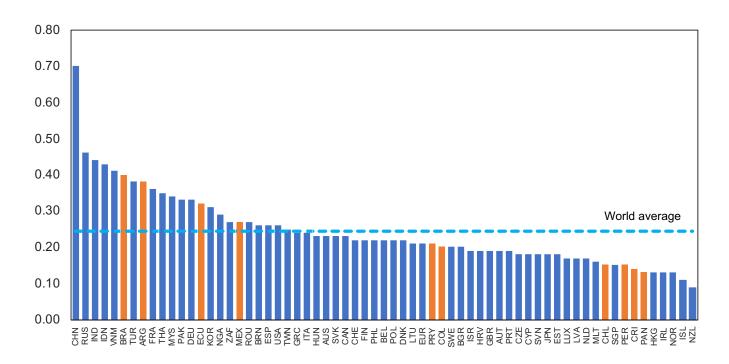


Notes: The OECD average excludes Chile, Colombia, Costa Rica, and Mexico.

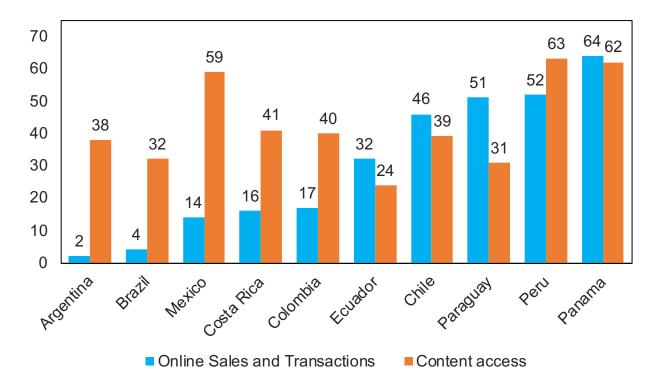
Source: Based on UNCTAD (2019a).

Figure 29 Digital Trade Restrictiveness Index, 2018

Panel A: index score, 2018



Panel B: online sales and transactions and content access rankings

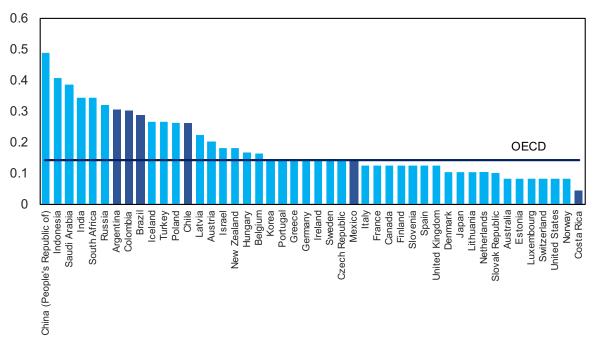


Notes: in panel A, a higher score indicates more restrictions; in panel B, a higher ranking indicates more restrictions.

Source: Ferracane et al. (2018).

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Figure 30 OECD Digital Services Trade Restrictiveness Index, 2019



Notes: a higher score indicates more restrictions. The OECD average excludes Chile, Colombia, and Mexico. Source: Author based on OECD.

The regulatory environment for cross-border e-commerce presents important challenges for the expansion of digital trade in the region, limiting the extent to which LAC firms can gain scope and scale through exporting goods and services. Giordano (2017) finds that around 70% of preferential trade agreements signed by countries in the region include at least one e-commerce provision and around half include a chapter dedicated to e-commerce. However, average commitments are less than a third of those included in the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), the benchmark with the broadest range of e-commerce provisions. Moreover, actual commitments correspond to only 13% of potential obligations (Herreros, 2019).

Differences in terms of regulatory frameworks for cross-border digital trade emerge as well between regional blocks.

While the Pacific Alliance, involving Chile, Colombia, Mexico and Peru, has adopted the greatest number of e-commerce provisions

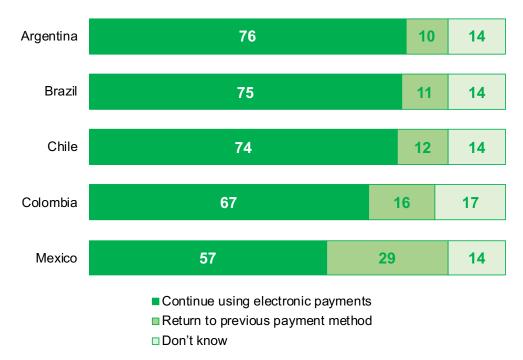
and has commitments in all categories of the CPTPP, MERCOSUR (composed of Argentina, Brazil, Paraguay and Uruguay) has participated in few negotiations outside the block, leading to a substantial gap between actual and potential e-commerce provisions. Central American and Caribbean countries, on the other hand, have benefited from extra-regional agreements with the U.S and the E.U. In the case of the Central American Common Market, the CAFTA-DR trade agreement between the U.S. and the Dominican Republic implied agreeing on about half of the provisions of the CPTPP in the market access and e-commerce facilitation categories. Among Caribbean countries, the CARIFORUM-EU trade agreement includes 5 out of 12 provisions for e-commerce, although with lighter commitments than in the CPTPP. More recently, Chile, together with Singapore and New Zealand, signed the Digital Economy Preferential Agreement (DEPA), which set rules regarding interoperability and opportunities for digitalization and represents a step forward compared to more limited previous e-commerce negotiation initiatives.53

Electronic and digital payment systems

The COVID-19 emergency was an opportunity to expand electronic and digital payment systems. As was documented in chapter 6, during the pandemic a larger fraction of the population started using electronic payments, especially elder users, informal and traditional businesses, and people outside the banking system through the expansion of non-banks. Moreover, the banking industry faced the priority of avoiding physical transactions in local branches, thus promoting the use of electronic methods to enable business continuity.

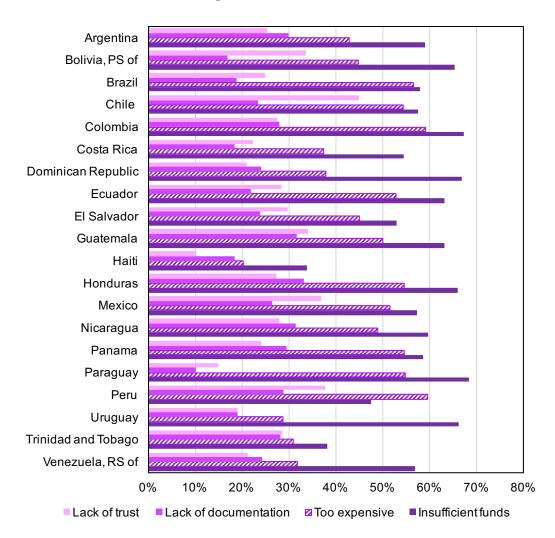
For both industry and users, the pandemic implied accelerating a digitalization and financial inclusion process that would have taken years in just a few months. Changes in consumption habits brought about by the pandemic contributed to overcoming challenges and lifting barriers to adoption of digital payments along several dimensions, going beyond measures taken by governments in the region.54 Generating users' trust around security of digital payment systems and the safeguarding of privacy, a fundamental challenge to enable widespread adoption, was seen as a gradual process that would take years to mature in the region. During the emergency, however, users, including consumers, the government, and businesses, were forced to rely on digital payments, with many first-time users adopting the technology in just a few months. As people used electronic payments for everyday transactions, users may have started to develop trust and realize that transactions are secure. In fact, according to the Kantar COVID-19 Barometer, on average 70% of

Figure 31 Attitude towards usage of electronic payments after the pandemic, April 2020



Notes: as a percentage of answers to the question "Do you think you will continue to use electronic payment methods – credit and debit cards, mobile apps – instead of returning to using cash, even when the emergency ends?" Source: Author based on Kantar COVID-19 Barometer Round 2 (April 1-14, 2020), reported in Mercado Libre (2020a).

Figure 32 Cited barriers for not having a financial account, 2017



Note: Respondents could offer more than one reason, and most gave two. Based on people aged 15 or more who do not have a financial account. Source: World Bank Findex Global Database 2017.

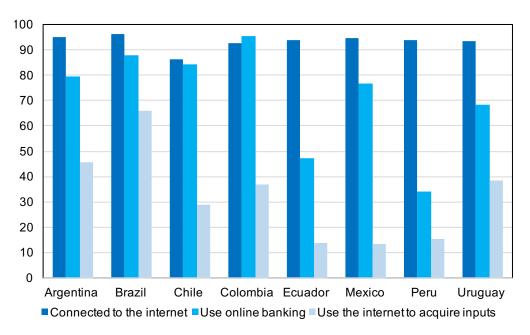
users in Argentina, Brazil, Chile, Colombia and Mexico indicated that they would continue to use electronic payments once the emergency ends, instead of returning to the use of cash (Figure 29).

The extent to which electronic payments can become an established and widespread method in the region, however, will depend on how successful the industry and governments are in developing an enabling environment that can support this apparent change in users' attitude. In fact, Demirgüç-Kunt et al. (2018) indicated that insufficient funds, cost, and in some countries

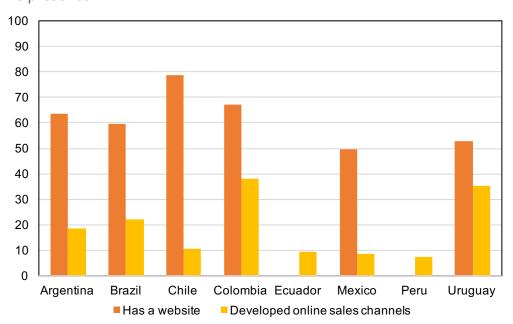
lack of necessary documentation, were more prevalent reasons than lack of trust for not having an account in a financial institution (Figure 30). Although these reasons suggest that, past trust, non-traditional payment methods like virtual wallets and non-banks may be a more viable alternative than traditional banking, since they are less costly for users and involve fewer administrative steps, this may not be the case for businesses, which still face high fees and financing costs when accepting these alternative electronic payment methods.⁵⁵

Figure 33 Digitalization of businesses in selected LAC countries, 2018

Panel A: Digitalization of businesses' supply chain



Panel B: Online presence



Source: CAF and ECLAC (2020) based on Telecom Advisory Services and UNCTAD.

During the pandemic, accelerated adoption, especially among users with fewer digital capacities, unveiled the need for banks and financial institutions to complement the supply of digital financial services with a better overall digital experience for guiding new users of new payment technologies. The use of manual and paper-based procedures during the onboarding process are still the norm in most countries in the region, and act as a barrier to agile

adoption of digital payment technologies. Even in most developed markets such as Argentina, Brazil, Chile, Colombia, and Mexico, where the majority of banks offer a close-to-100% digital experience, some banks may take up to 4 business days to open a bank account (Mastercard and AMI, 2020). In addition, while integration between banking institutions and digital companies, like fintechs, and competition between banks and non-banks, could provide a way to streamline this process

and offer a better user experience, the regulatory environment in the region, with few exceptions, like Mexico, still does not provide a foreseeable horizon and clear rules on which this integration can flourish.

Even if increased penetration of nontraditional digital payment methods, like virtual wallets and mobile payments, could overcome low banking penetration to enable more local e-commerce activity, electronic payment methods that enable growth of crossborder e-commerce and digital trade still need integration with the banking system. As of 2017, the (unweighted) average of credit card ownership among LAC countries covered by Demirgüç-Kunt et al. (2018) was 15% (compared to 45% for high income countries), with high dispersion across countries, which range from 5% in Honduras to 41% in Uruguay (Figure 29). Moreover, in some countries, special permissions are needed to use a credit card for foreign purchases. Americas Market Intelligence (2019) reports that, for Chile, Colombia, Mexico, and Peru, 39% of e-commerce expenditures in 2018 were done with an international credit card. Other initiatives which could facilitate cross-border payments, like Pay Pal, Ali Pay, Apple Pay, or Google Wallet, have practically no presence.

Advancing on a modern cybersecurity and fraud prevention framework is another challenge that countries will have to overcome in order for electronic and digital payments to become an established trend in the region. The movement to online banking and digital payments during the pandemic offered an opportunity for fraudsters and cyber-attackers, especially facing inexperienced customers. For example, in Costa Rica, a data hacking app called COVIDLock spread through the country during the first weeks of

quarantine measures, affecting individual users and firms, including an attempt to one of Costa Rica's local banks. In Colombia, authorities reported 160 cyber-fraud claims during the weekend prior to the confinement, a 60% increase compared to 2019 (Austin, 2020).

Beyond this anecdotal evidence, the Organization of American States (2018) reported that in 2017, 49% out of a sample of 191 banks in the region had still not implemented tools or controls based on new technologies such as big data, machine learning or artificial intelligence, 92% reported some kind of security event, and 37% reported having been victims of successful attacks during 2017. Moreover, a study by the Organization of American States and the Inter-American Development Bank (2016) concluded that, while many Latin American countries had adopted law provisions for cybercrime, adoption of specific procedural law powers remained a challenge and few countries had made progress towards a cybersecurity strategy beyond the outline stage.

Above all, industry participants in the electronic payments sector agree that the biggest challenge to unlock the potential of electronic and digital payment systems in a sustainable fashion in LAC remains reducing informality and increasing financial inclusion. By 2017, half of the LAC population did not have an account in a financial institution, and, by the start of the pandemic, more than 50% of employees were informal. Moreover, informality among ownaccount workers was more than 80%, and among firms with less than 10 employees it was higher than 70% (Salazar-Xirinachs and Chacaltana, 2018). These figures impose fundamental limitations to the sustainability of electronic payment growth in the region.

Business e-readiness

The digitalization of production and distribution processes proved fundamental to ensure business continuity and strengthen business resilience during the COVID-19 pandemic. Businesses with a strong online presence and streamlined digital processes were ready to capture a selective demand that shifted to online and digital channels, minimizing losses and in some cases even making higher profits than before the pandemic.

However, for the majority of firms in LAC, the pandemic implied adapting to a completely different scenario. In conversations with industry participants across the region, they agreed that even for MSMEs who accessed consumers indirectly through online channels by selling to larger businesses or marketplaces, the change from a B2B to a B2C business model as consumers changed habits implied establishing their own commercial websites and finding their demand directly. 56 Additionally, the disruption in supply chains meant many businesses lost access to their regular suppliers and had to look for new providers, sometimes substituting for businesses in other cities or countries, especially among those businesses selling essential health products.57

Pre-COVID-19 data suggest most businesses in LAC, predominantly MSMEs, were not well prepared to adapt to this new scenario, and had to experience a costly learning process.

Although in most countries in the region more than 90% of firms are connected to the internet and more than 50% have a website, by 2018 only around a third used the internet to buy their

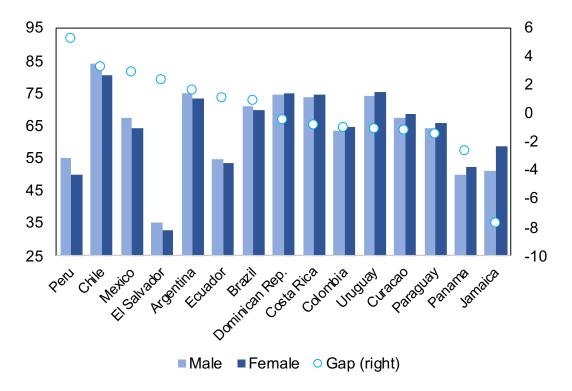
inputs, compared to 70% for OECD countries, and less than 20% had developed online sales channels (Figure 31). Moreover, although systematic data about digital skills for LAC are scarce, available evidence from Chile, Ecuador, Mexico and Peru suggests few workers have the necessary skills to employ digital tools at work (OECD et al. 2020). For example, a significant share of adults in these countries has very little to no computer experience, ranging from 43.6% in Peru to 25.2% in Chile.

Averages mask significant gaps between countries and between large firms and SMEs.

For instance, the share of businesses using the internet to acquire inputs was above 60% for Brazil and less than 20% in Mexico, Ecuador, and Peru. According to data from the World Bank Enterprise Survey, despite a significant increase in the last 10 years, important gaps between large firms and MSMEs remain even in the adoption of mature technologies such as using e-mails to communicate with clients and suppliers and having a website (Dini and Stumpo, 2018).

Given these differences in technology adoption between large firms and MSMEs, a challenge for LAC countries is to design policies that raise awareness about the productivity and profitability gains of applying (even simple and mature) digital technologies everyday productive in processes, as well as training programs that strengthen MSME's digital skills. A key aspect of this challenge is to understand that, for most micro and small businesses, information about suppliers, solution providers, or technological tools, may not be enough to enable their digital transformation, and can in fact increase uncertainty about which technology they should

Figure 34 Percentage of individuals using the internet, by gender (latest available data)



Source: ITU.

implement, fostering inaction. Rather, MSMEs need to understand how their business models must change in order to better harness digital technologies and improve profitability. This may imply implementing focalized on the job training of general entrepreneurial practices and basic digital skills. Naturally how to scale these types of interventions is a challenge in itself.

Delivery platforms and marketplaces allowed businesses to remain active through B2C channels, but high fees represent a challenge.

The sharp increase of delivery platforms noted in the last chapter reflects one way in which MSMEs activated their B2C channel in response to the crisis, especially among restaurants, drugstores, and small retail brick and mortar shops. However, fees for using these platforms are in the order of 20-25% of purchases' value or more. The fact that in LAC these businesses tend to be low productivity, informal firms, suggests that high

fees may have implied a drop in profitability, in some cases creating a high barrier to entry into these technologies. Combined with two-sided market effects, and economies of scale and scope, that can result in concentration and strong market dominance among platforms, strengthening regulatory frameworks to monitor and identify abusive practices and anticompetitive behavior, as well as ensuring low barriers to entry into this segment, is a challenge for LAC countries. Training in basic entrepreneurial practices and digital skills, as mentioned above, may also help in providing MSMEs tools and information to search for the right tool and foster competition.

The COVID-19 crisis has had a disproportionate impact on businesses owned by women.

Higher care responsibilities at home due to school closures and a tendency to be employed in hard-hit sectors such as food, retail, hospitality, and tourism, meant that the economic impact

of the crisis took a larger burden on women. Rising domestic violence worsened even more the environment faced by women during the pandemic. The International Trade Center (2020) finds that, even controlling for the distribution of gender across sectors, more women-led firms than men-led firms declared their businesses operations were strongly affected by the COVID-19 crisis (64% vs. 52%).

More importantly in the context e-commerce, the region shows substantial cross-country heterogeneity in women' access to mobile phones and other digital devices. Internet penetration data show a significant degree of heterogeneity in access to internet connectivity among males and females (Figure 32), with Peru, Chile, Mexico showing the largest gender gaps. Rotondi et al. (2020) find that in 75% of 23 analyzed countries in the region, women are less likely to own a mobile phone than men, especially low-educated women in rural areas. Moreover, their results show that even if LAC shows balanced Facebook penetration on average when compared to other developing regions, such as Sub-Saharan Africa and Asia, men are more active than women in Mexico and Central America. Consistent with this, GSMA (2020) finds that women in Brazil, Guatemala and Mexico are less likely than men to control their smartphone purchase. This evidence suggests that in some countries in the region women may not be equally equipped to reap the benefits of e-commerce.

ANALYSIS OF POLICY RESPONSES

8

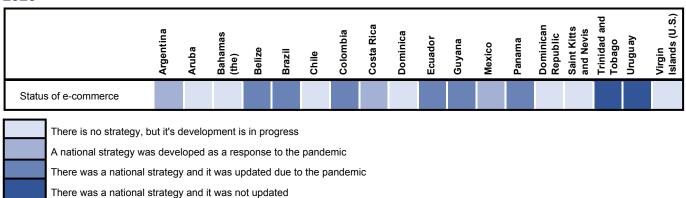
This chapter presents an analysis of how countries in the region responded to support e-commerce and digital trade activities during the first semester of 2020. It benefits from a survey on initiatives and policy responses to foster e-commerce and digital trade amidst the COVID-19 pandemic answered by government officials in the region during September and October 2020, which is complemented by a description of selected national policies. ^{60 61}

National strategies and institutions to develop and support e-commerce

By the time the COVID-19 pandemic hit the region, 9 out of 18 surveyed countries indicated that they had a national strategy to promote and develop e-commerce in place (Table 6). Of the other half, Argentina, Costa Rica, and Mexico indicated that the pandemic prompted the development of a national strategy, while the rest reported that a strategy was in progress. Among countries with an existing strategy, in Belize, Brazil, Colombia, Ecuador, Guyana, and Panama, the pandemic

motivated changes and updates to existing strategies, and Trinidad and Tobago and Uruguay maintained their existing e-commerce strategies without changes throughout the pandemic. 83% of countries indicated that an agency or area of government has been specifically designated to coordinate actions related to e-commerce, and 50% responded that an instance of multistakeholder dialogue is in place to promote e-commerce (Table 7).

Table 6
Latin America and the Caribbean (18 countries), status of e-commerce national strategy, 2020

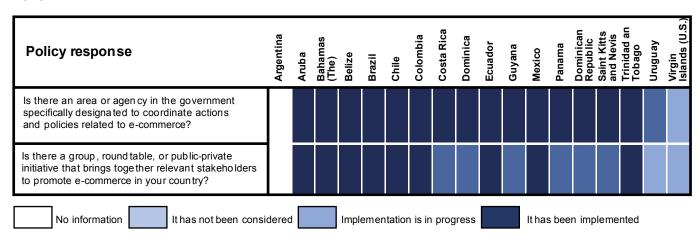


Source: by the authors based on survey responses.

The breadth and maturity of national strategies seem to vary substantially across countries. For instance, in Argentina, the strategy developed during the pandemic amounts to promoting platforms and providing information, training, and technical assistance for SMEs to enhance their online presence. However, there are no official policy documents nor initiatives that set specific long-term goals and targets regarding the development of e-commerce. In Costa Rica, there are no official strategic documents, but the government has outlined a coordinated strategy involving several dimensions that compose the

e-commerce environment, including the postal service, digital government, digital platforms, and digitalization of MSMEs. (Hernández Mora, 2020). In Mexico, the strategy entailed similar actions, but these were based on preexisting normative work within the Secretariat of the Economy to foster e-commerce. In Brazil, Colombia, or Guyana, the e-commerce strategy is supported by official documents or bills which include concrete goals and targets and consider the e-commerce environment broadly.

Table 7
Latin America and the Caribbean (18 countries), institutional features of e-commerce policies, 2020



Source: by the authors based on survey responses

In many countries, strategies to develop e-commerce are framed within digitalization strategies. During the last decade, almost all countries in the region have developed digitalization strategies and agendas, which include awareness and training programs to foster the adoption of digital technologies among MSMEs, as well as targets to expand universal access to digital infrastructure and connectivity.62 Even when these agendas do not address e-commerce explicitly, the policy instruments they include certainly contribute to the expansion of e-commerce. In fact, interviews with policy makers and an examination of governments' websites reveal that, to harness digital trade during the pandemic, many countries relied on, and in some cases expanded, initiatives which had been developed in the context of these agendas prior to the pandemic.

The case of Colombia is worth mentioning as an example that can illustrate how the pandemic changed priorities and the pace of discussions surrounding the e-commerce national strategy. Before the pandemic, several stakeholders were involved in conversations to promote the development of e-commerce, motivated

by a government mandate to prioritize digital transformation in Colombia. An E-commerce Subdirectorate had been created within the Ministry of Telecommunications and Information Technology (MinTIC) to support businesses in their digital transformation processes, and a presidential counselor had been appointed to lead the digital transformation strategy. A technical roundtable was informally established to identify opportunities, bottlenecks, coordination problems, and other challenges, with active participation from industry stakeholders. When the COVID-19 pandemic broke, these diagnostic activities became more relevant and derived in the drafting of a National Policy of Electronic Commerce document by the National Planning Department (DNP), MinTIC, and the Ministry of Commerce, Industry, and Tourism (MinCIT). In August 2020, the National Council of Economic and Social Policy (CONPES) released it for comments, and the policy is now under evaluation. It includes a detailed action plan to achieve three specific objectives: promote the use of e-commerce among businesses and citizens, strengthen postal and digital infrastructure for e-commerce, and define institutional agreements for promoting e-commerce.

Policy responses to enhance digital connectivity and e-readiness

Irrespective of whether an e-commerce strategy was in place and the institutional environment surrounding digital policies, most countries in the region took measures to enhance digital connectivity and e-readiness. Combining new actions and additional resources for already established instruments, most countries in the region implemented policy responses to supports businesses and consumers during the pandemic, including to enhance e-readiness and resilience among businesses and ensure connectivity, including preventing price surges (Table 8).

Measures to strengthen businesses' e-readiness and online presence

E-readiness and is the policy dimension in which LAC countries have shown some of the highest levels of engagement, both in terms of the number of initiatives as well as regarding variety and creativity. As presented in Table 8, 61% of countries implemented some form of training programs to repurpose economic activities towards e-commerce or foster the adoption of new electronic payments applications or systems. Countries have developed standard dedicated websites with information, recommendations, and training material.

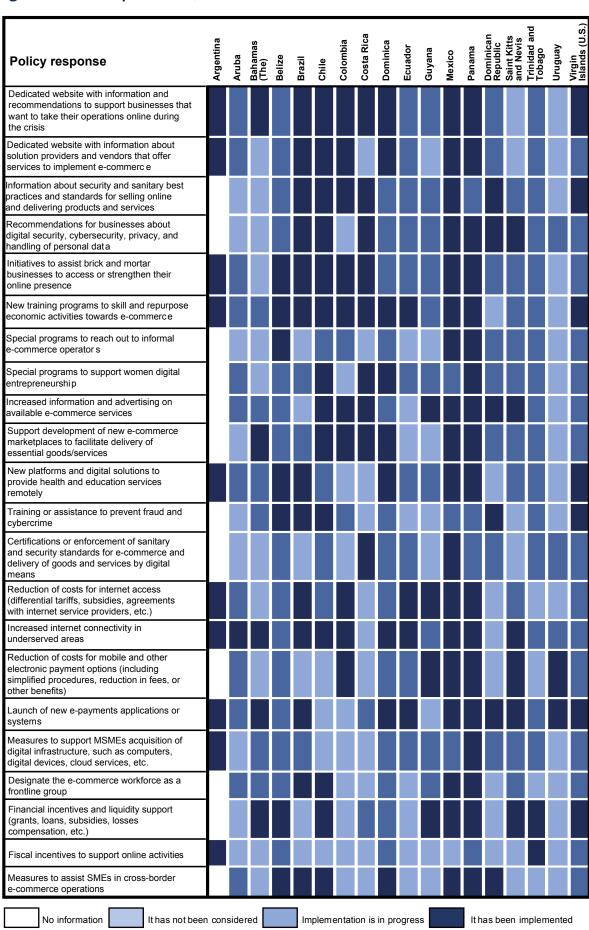
Many developed their own marketplaces and

applications to facilitate the shift of SMEs to online and digital channels. In some countries, dedicated programs were developed for specific sectors, like creative industries or professional services. Public-private partnerships were widespread, both with large established players and with local business associations.

A common policy was the establishment of a dedicated website with information and recommendations to support MSMEs in improving their online presence and adjusting their business models to the new context, implemented by 56% of countries. These were typically administered either by the national or federal government or by ministries of economy, production, industry or commerce. In general, websites feature advertising of business services, some of which include promotions, free trials and temporary use free of charge; tutorials and training material to improve businesses' online presence, buy and sell online, and digitalize processes, such as setting up an online store, improving digital marketing, or using of social networks to advertise products; and electronic payment and invoicing systems.

Argentina's "SMEs Digital Assistance Network", developed by the Ministry of Productive Development, is an example of this kind of policy. A public-private initiative, the website contains resources and tools to support SMEs during the COVID-19 pandemic in four categories: (1) improving connectivity and telework, (2) payments and invoicing, (3) buying, selling, and distribution, and (4) training. Each category includes a list of

Table 8
Latin America and the Caribbean (18 countries), policy responses to enhance e-readiness during the COVID-19 pandemic, 2020



Source: by the authors based on survey responses.

businesses and service providers, videos and tutorials to assist SMEs going digital, as well as a catalogue of benefits offered by companies and local business chambers, such as discounts and free online content. Local businesses and associations can sign up to advertise and feature their services and solutions. In Brazil, SEBRAE, Brazil's agency supporting MSMEs, offers a wide range of resources to train and encourage microentrepreneurs seeking to increase their online presence.

Interestingly, apart from targeting the digitalization of typical business activities related to the production of goods which could no longer sell in physical stores, in some countries these platforms also try to include tools for businesses or independent professionals in services sectors, such as health, legal services, design, or digital content creators. For example, Colombia's "Colombia Starts and Innovates" platform, which offers free solutions for consumers and businesses to mitigate the impact of the COVID-19 crisis, features tools to boost e-commerce and digital trade in telemedicine and other online health services. In Brazil, the federal government launched the "Everyone for Everyone" campaign to stimulate solidarity among citizens and businesses in the pandemic. Among other resources, the campaign includes applications and solutions to implement digital signature and other legal services, digital vouchers in exchange for health services, and intermediation tools to connect potential buyers with online service providers.

As shown in chapter 7, a challenge for LAC is the low percentage of businesses with an established online presence, in particular among

MSMEs. The latter have been hit the hardest by the pandemic, as by the time of the outbreak had not developed any kind of online presence or digital processes, nor had readily available tools nor skills to shift to online or digital channels (ITC, 2020). Moreover, even if given information about available solutions, the fact that they have low digital capabilities with very low levels of digital literacy implies that they probably had a hard time understanding where to start or which solution to choose from the menu of available options. For this reason, beyond the provision of information and resources, some countries also set up programs to guide MSMEs in setting up e-commerce operations. In Colombia, the MinTIC launched the "Sell Online" program, designed to guide entrepreneurs, stimulate formalization and digital payments, and strengthen their business strategies.

Governments engaged in public-private partnerships with well-established marketplaces, or even developed their own marketplaces or platforms to promote local products and connect buyers and sellers.

These initiatives can be especially helpful for informal microenterprises with relatively lower scale of operations, or in rural areas. In Costa Rica, for instance, as a response to the crisis generated by the pandemic and with the goal of ensuring business continuity, the Ministry of Economy, Industry and Commerce (MEIC) established public-private partnerships to make four platforms available to SMEs, including guidance on how to redirect sales through online channels and free access to some marketplaces. It also developed the "Buy-SME" platform for those businesses without an online presence. Moreover, the Ministry of Agriculture, in collaboration with the MEIC, Procomer (Costa

Rica's export promotion agency), and the Costa Rican Food Industry Chamber, launched a smartphone app and a texting service to facilitate trade among producers of agricultural, meat, and fish products, with more than 90,000 registered producers. In a similar vein, Chile, through Sercotec and Corfo, developed the "Everyone for SMEs" platform to encourage B2C operations among MSMEs. Similar examples can be found in Colombia, the Dominican Republic, Mexico, Panama, and Peru.

As we noted above, dedicated websites with information and resources sometimes include applications and tools for digital services or services traded through digital means. However, few countries have developed targeted responses for specific digital services sectors affected by the pandemic. Most notably, Colombia's MinTIC launched the "Abilities for Creative Digital Industries" program, aimed at supporting businesses that create digital content to improve their capacities to better sell their products, including technology adoption, payments, intellectual property, and negotiation.

Actions related to strengthening MSMEs' online presence also included initiatives to foster adoption of electronic payments by businesses. Colombia, Costa Rica, and Mexico present interesting examples. In Colombia, the local private bank Credibanco partnered with the "Buy Ours" platform and launched the "I stay at my business" program to incentivize electronic payment methods among SMEs using the platform, and guarantee business continuity during the COVID-19 crisis. In Costa Rica, the National Bank partnered with Nidux to offer the NIDI electronic payments platform free of charge for 90 days to SMEs during the pandemic. The

platform also includes training in e-commerce and marketing, integration with social networks, and other e-commerce tools, such as inventories' monitoring and products catalogue. Finally, in Mexico, the City of Mexico partnered with Mexico's Banks' Association to promote the use of the Central Bank's electronic payments system, CoDi, and prevent contact and crowds in local banks. Mexico's National Commission for Financial Services Users Protection and Defense (CONDUSEF) also promoted the use of CoDi to mitigate the impact of COVID-19, although, as we saw in chapter 6 above, growth in CoDI uptake was stable.

Among policies less frequently implemented were those related to women entrepreneurs

(22%). A notable exception is Costa Rica. The "Women and Business 2020" National Program for Women Entrepreneurs (PNME), launched by the MEIC together with National Institute of Women (INAMU) and the National Learning Institute (INA), selected 225 women to participate in training and capacity building activities with the aim of strengthening their businesses amidst the sanitary crisis. The program includes access to business networks and practical tools to develop e-commerce strategies. In other countries, governments make information available about courses and resources offered by the private sector. For example, in Mexico, the MSME MX platform, developed by the Productive Development Unit of the Secretariat of Economy, offers information about private sector initiatives to strengthen digital skills of women entrepreneurs, as well as guidance on e-commerce best practices, online security and other tools to ensure business continuity while staying at home. Finally, Colombia included the identification of opportunities for women in e-commerce in the action plan outlined in the draft National Policy for Electronic Commerce (CONPES, 2020).

national Beyond initiatives. regional efforts have emerged to support women entrepreneurs. The International Trade Center (ITC), in a partnership with the Secretariat for Central American Economic Integration (SIECA), set up an initiative to help women entrepreneurs in Central America increase their online presence and access foreign markets through cross-border e-commerce. The initiative organized more than 300 B2B virtual meetings with women craft businesses in Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, and Panama through SIECA's Centro American Trade Network (RCAC) platform, connecting over 150 suppliers of raw materials and handicrafts. The platform allowed businesses to display their products and services, and more than 60 women entrepreneurs succeeded in identifying new buyers and business opportunities in the region. In the Caribbean region, the CARICOM Girls in ICT partnership hosted a digital dialogue in May on "Jobs, work, and opportunities in the post-COVID Caribbean".

Other less frequently implemented policies were special programs to reach out to informal e-commerce operators (17%), fiscal incentives to support online activities (11%), measures to support MSMEs acquisition of digital infrastructure and devices (11%), and certifications or enforcement of sanitary and security standards for e-commerce (11%).

Argentina launched the "Argentina Finds Solutions Program: Recovery of the Knowledge Economy", which offers non-reimbursable transfers to meet financing needs of businesses wanting to invest

in innovative products, services and solutions developed by the knowledge economy that could overcome challenges imposed by the COVID-19 pandemic. Among the projects covered by the program are those aimed at improving commercialization and business models so as to better respond to the new pandemic context.

Measures to strengthen crossborder e-commerce

Aside from trade facilitation measures, relatively few cases were identified of new policies to strengthen e-readiness and online presence specific to businesses involved in cross-border e-commerce and digital trade operations, be it goods or services. One case is the B2B platform "Productive Linkages", developed by the Dominican Republic's Ministry of Economy, Industry and Commerce together with four institutions that promote foreign trade in the country to connect Dominican firms with foreign potential buyers. The platform is one of the resources offered in the dedicated website "The Value of Ours", together with information about other measures taken during the COVID-19 pandemic to assist MSMEs.

Another example is Costa Rica, which, among the public-private partnerships made with marketplaces to support SMEs during the pandemic, it included "Costa Rica Fashion Week Shop", a platform for local and international designers.

Brazil's export promotion agency, Apex, launched a dedicated website with information about e-commerce opportunities for Brazilian exporters, and ran a survey among exporters to

inquire about training and other needs amidst de COVID-19 crisis as an input to improve its e-Xport e-commerce support program. Similarly, in Chile, Pro-Chile set up the "Cooperation COVID-19" website with information and resources aimed at supporting exporters, including a support contact line for those who were commercially affected by the crisis.

Measures to ensure internet connectivity

increase connectivity to underserved areas were among the most popular initiatives in the region. 61% of countries implemented policies to make progress towards universal access to digital connectivity. For example, in Argentina, the National Communications Entity (ENACOM) used resources from a previously established dedicated fund to implement several ICT and infrastructure programs to guarantee access to mobile and internet connectivity in poorly served areas. Colombia established a special, more agile procedure for permits and licenses to deploy infrastructure and, later in May, issued the first permit to test 5G technology to support measures to control the spread of COVID-19.

In order to ensure internet connectivity of businesses and people, most countries in the region declared internet and mobile services as essential or strategic services. This meant that service providers had to guarantee access to internet or mobile services, with the exact way in which this was implemented varying across countries. In Argentina, the Dominican Republic, and Peru, for example, the government

established that companies could not interrupt internet, mobile, and subscription-based television services. 68

In Colombia, the government required that companies guarantee installation, maintenance, and operation of telecommunication services.

On top of declaring these services as essential, some countries also acted to regulate or affect the price of internet services. Argentina established a price freeze in March, which was later extended until December 2020, with providers needing a government authorization to change prices from then on. Colombia eliminated the value-added tax on mobile plans below a given threshold, targeted at lower income households, to guarantee connectivity and provide economic relief. In Mexico, through the Federal Telecommunications Institute (IFT), several mobile and internet service providers offered special discounts and promotional packs during the COVID-19 pandemic.

Regional collaborations

Beyond national policies, several regional organizations have launched region-wide initiatives to partner with governments and support SMEs and individuals in e-commerce and digital trade. In September 2019, KOLAU, a digital marketing platform who partners with Google, signed a cooperation agreement with the Organization of American States (OAS) to foster the digitalization of SMEs offering goods and services in Latin America and the Caribbean, adapt their business models to digital channels, and strengthen their online presence. Although some countries joined the initiative in 2019, other governments in the region have taken advantage of this cooperation to implement assistance

programs during the COVID-19 pandemic. So far, Bolivia (Plurinational State of), Chile, Colombia, Costa Rica, El Salvador, Guatemala, Honduras, Jamaica, Mexico, and Paraguay have partnered with KOLAU to develop free programs for SMEs focused on e-commerce.

In a similar vein, the United Nations Development Program (UNDP) launched the "Acceleration 2030 MSMEs" global initiative as a response to the COVID-19 pandemic, to advertise, disseminate and implement solutions to mitigate its impact on MSMEs' activities, strengthen their resilience, and share success stories. The initiative is open to governments, private sector organizations, and academic organizations who propose solutions in three categories: health and occupational security, agile payment methods, and logistics and distribution chains. In the region, the UNDP leads the initiative together with the Dominican Republic Ministry of Industry, Commerce, and MSMEs, and has received support from the governments of Colombia, Costa Rica, Guatemala, and Mexico, as well as private sector organizations from these countries. The IDB and the Central American Integration System (SICA) also joined as regional partners.

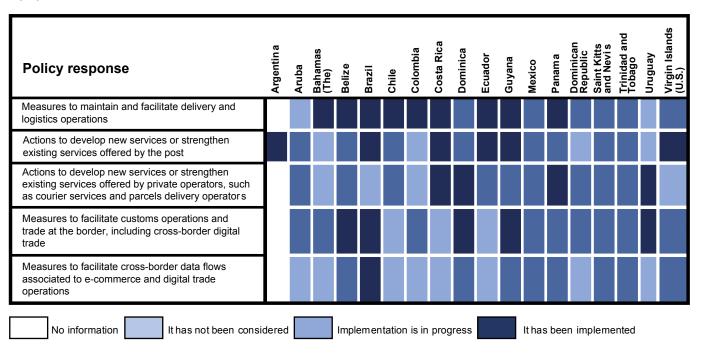
ConnectAmericas, an informational platform developed by the Inter-American Development Bank to connect businesses in Latin America and the Caribbean and facilitate access to business opportunities, launched the COVID-19 Map of Providers and Solutions. Similar to initiatives developed by governments described above, the map provides information about businesses in the region offering essential health products, telemedicine and online management solutions, and data analytics services, among others.

Policy responses to facilitate trade and logistics

In terms of trade facilitation and logistics, 50% of surveyed countries implemented measures to maintain and facilitate delivery and logistics operations, and 33% indicated that they had taken actions to develop new services or strengthen

existing services offered by the postal service (Table 9). Only one country (Brazil), reported having implemented measures to facilitate cross-border data flows associated to e-commerce and digital trade operations.

Table 9
Latin America and the Caribbean (18 countries), measures to facilitate trade and logistics, 2020



Source by the authors based on survey responses.

As the virus spread and countries developed safety and hygiene protocols for different sectors, most countries in the region included postal, courier, and other logistic and transport services among essential activities and issued specific protocols so that businesses could continue their activities, effectively benefiting e-commerce operations. In Argentina, for instance, the government, together with the Argentine Post and the Association of Postal Services Firms of Argentina, developed a hygiene and security

protocol and released recommendations for workers and users of postal services. An exception is Peru, where delivery services were not allowed during March and April, negatively affecting e-commerce activity as was shown in chapter 6 above.

Most countries complemented these protocols with the inclusion of information about logistics providers available to SMEs in their dedicated websites, to assist those businesses shifting to e-commerce and online

channels. More interestingly, in some countries the postal service launched special programs or services to integrate parcel delivery systems with businesses' online stores or e-commerce platforms. For example, the Costa Rican Post actively advertised and increased take up of its Pymexpress service, which integrates with online stores, with reduced fees for SMEs. Moreover, the Post made delivery of goods bought in Asian marketplaces free of charge if done in Post offices or at a discount for home delivery. In Argentina, the Post launched "Paq.ar" in April, a new parcel delivery system that integrates with the online sales process of SMEs to ease the logistics derived from e-commerce operations.

Turning to measures to facilitate trade at the border, most countries in the region quickly turned to the removal of requirements for essential, health-related products, such as face masks, thermometers, ventilators, and other supplies. Simplification of customs procedures, such as prioritized and expedited clearance or special modalities for relief consignments, were implemented in Argentina, Brazil, Costa Rica, El Salvador, Guatemala, Guyana, Panama, and Uruguay, among others. Some countries reduced or temporarily eliminated duties, fees, and even value added tax for medical supplies, like in Argentina, Brazil, Dominican Republic, Ecuador, Guyana, and Uruguay.

Many medical supplies were actually traded online through e-commerce platforms and marketplaces, and delivered by express or courier services, and these measures greatly eased cross-border transactions at a time of increased demand. According to industry participants, in those countries where government agencies' authorizations

and controls were not eased, like Colombia or Honduras, operators found it too costly to import from abroad and had to resort to local suppliers.

Some countries saw in the COVID-19 pandemic an opportunity to implement more structural reforms for trade facilitation and logistics. Beyond emergency measures, some countries managed to make progress towards more structural reforms to develop better customs and trade facilitation procedures. Even if not all were necessarily motivated by efforts to facilitate cross-border e-commerce, they can potentially have a long-lasting positive effect on e-commerce and digital trade.

One example is that of Costa Rica and Panama, that entered into an agreement to ease congestion at the border and implemented a hygiene and security protocol for land transport operators. The agreement includes more agile bureaucratic processes at the border and GPS monitoring of trucks to supervise planned routes and times of delivery. Panama also started to implement the Cargo Targeting System, a cargo manifest risk assessment software solution developed by the World Customs Organization to enable its members to carry out international best practices to manage risk and facilitate international trade. The system had been in place since 2017, but authorities had not implemented it regularly. In Costa Rica, moreover, the National Customs Service and the Post made all custom processes related to claims and tax payments available online.

Another example is Peru, which in August announced the digitalization of all its customs procedures for exporting, enabling electronic filing and electronic payments, and QR systems,

among other paperless procedures. In a similar vein, in the Dominican Republic, the Customs General Directorate (DGA) signed an agreement to integrate with DR-Trade, an open logistics electronic platform that promotes paperless procedures in the country, as a means to facilitate trade and further the digitalization of the customs system.

Colombia also took advantage of this context to advance with customs reform and comply with pending international agreements. In August, in line with the WTO Trade Facilitation Agreement, the government established a USD 200 de minimis threshold for tariff-exempt express shipments. Ending a preparation process that started in 2019, the CONPES accelerated the approval of a modernization investment project for the National Directorate of Taxes and Customs (DIAN) with resources provided by the IDB, which includes the implementation of a risk management system, integration of electronic invoicing with DIAN's processes, new cargo traceability technologies, a data governance framework, and a cybersecurity and information security strategy.

In Brazil, while there were gradual initiatives to introduce new technologies in some customs warehouses, the pandemic speeded up the automation of physical inspection procedures, especially for express shipments, and private operators quickly set up new automated processes. Finally, several countries also made progress concerning the automated economic operator (AEO) program, especially regarding the validation and certification process.

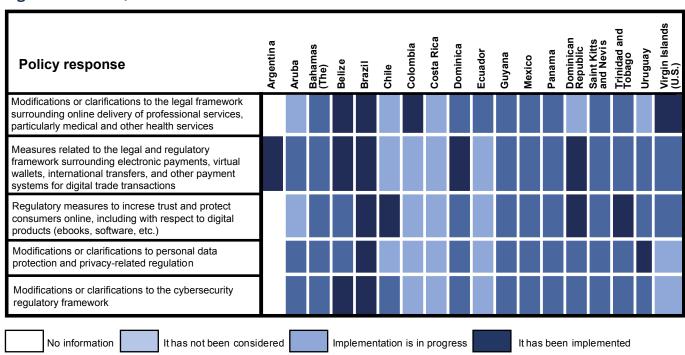
Regarding regional blocks, the Pacific Alliance started conversations to establish an additional protocol for cross-border digital trade and e-commerce, including dispositions on mutual recognition of digital and electronic signature, online consumer protection, and digitally transmitted products, such as software, video games, video and sound. In MERCOSUR, negotiations towards establishing a protocol for e-commerce are ongoing.

Policy responses related to the regulatory environment and legal framework

Few countries implemented initiatives regarding the regulatory environment and legal framework to enable digital trade (Table 10). In particular, only 11% of countries put in place modifications or clarifications to personal data protection and privacy-related regulation or modifications to the cybersecurity regulatory framework, although 56% indicated that actions were in progress in these areas. Notably, Brazil was the country in which more measures were implemented.

In general, policies to foster the adoption of electronic and digital payment systems in the region were implemented in countries in which a former strategy or initiative was in place. The most relevant actions we have identified in this front, which have a potential to structurally promote the adoption of electronic payment systems among businesses and consumers from a regulatory standpoint, are those of Argentina and Brazil. In Argentina, the Central Bank launched the Transfers 3.0 system, introducing regulation to allow immediate transfers between bank accounts, towards a more interoperable, flexible, and competitive digital payments ecosystem. Fees for MSMEs are waived during the first three months and capped thereafter. In Brazil, plans by the Central Bank to launch Pix, an interoperable instant payment scheme in 2021 accelerated to November 2020.

Table 10 Latin America and the Caribbean (18 countries), measures related to the regulatory and legal framework, 2020



Source: by the authors based on survey responses.

Increased online consumption motivated the adoption of new consumer protection regulation specific to e-commerce. In Chile, Congress is discussing a project to amend the consumer protection law to include online consumption regulation. The project was motivated by increased online sales and growing cases of contractual issues in delivery services. Argentina also incorporated MERCOSUR's 2019 new consumer protection regulation specific to e-commerce to its legal framework.

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WAY FORWARD

9

The COVID-19 pandemic and its associated containment and preventive measures have confirmed the role of e-commerce as an enabler for growth, providing opportunities firms and individuals to maintain business continuity and strengthen economic resilience, which corroborate its potential to be a major contributor to economic recovery as economies leave the first wave of coronavirus behind. Recent trends presented in chapter 6 show that businesses and consumers rapidly sought to move to digital channels, adapting to new business models and new consumption habits, essentially driven by constraints imposed by physical distancing measures. As discussed in chapter 7, the need to accelerate a shift to an environment dominated by digital trade met important bottlenecks which unveiled fundamental challenges associated to enablers of e-commerce in the region. While some of these challenges were shared by virtually all countries around the world given the magnitude of the crisis, most had to do with pre-existing structural gaps that could hinder long-term sustainable growth of digital trade and prevent countries in the LAC region from fully harnessing its opportunities going forward.

Governments in the region reacted to alleviate the impact of the emergency, but efforts were unbalanced and few countries engaged in structural reforms to harness e-commerce.

The inspection of policy responses in chapter 8 reveals that all countries in the region took measures to support MSMEs striving to remain solvent during the crisis, made efforts to ensure access to digital connectivity, and managed disruptions in logistic networks simplifying and automating customs procedures. Policy efforts to address challenges related to the expansion of e-commerce were however unbalanced. While

most countries implemented initiatives to support MSMEs developing a stronger online presence, including training, guidance, information, and recommendations, few countries structurally addressed challenges related logistics and trade facilitation, and even fewer took measures to adapt the regulatory and legal environment. In what follows, this chapter elaborates on observed gaps and points to specific recommendations going forward.

Most governments in the region tried to address challenges facing MSMEs accessing online channels and switching to digital business models, but more efforts should be dedicated to support MSMEs trading across **borders.** There seems to be a tendency to approach e-commerce with a local logic in the region, neglecting opportunities to expand into new markets. Despite evidence suggesting that increasing online presence could increase exports, firm survival, and productivity, LAC has not been able to take full advantage of e-commerce opportunities to enter foreign markets in the last decade, especially regarding merchandise trade. One of the important outcomes brought about by the COVID-19 pandemic, however, has been the disruption of global value chains. But the pandemic has not motivated widespread specific policies aimed at fostering exports through cross-border e-commerce in the region. As economies recover and logistic networks converge to a new normal that can provide more certainty going forward, governments should strive to support businesses, especially MSMEs, in accessing foreign markets through digital channels to contribute to building more resilient global value chains in the region. This includes new export promotion modalities that leverage digital technology, such as virtual trade fairs or business rounds like the ones carried

out by the Pacific Alliance during the pandemic. Strengthening online presence per se, however, will most likely not change underlying fundamental obstacles to economic integration among LAC manufacturing firms. Therefore, governments will have to continue to complement digital policies with efforts to increase the productivity of MSMEs in manufacturing.⁷⁵

Considering the change in consumption habits during the pandemic, the region could look to strengthen activities of non-traditional digitally traded services. Higher penetration of online digital channels could more than proportionally strengthen comparative advantage in digital services, including in activities not traditionally intensively traded across borders in the region, such as health services, education, creative industries and cultural content, or gaming, among others. During the pandemic, few countries have explored policies specific to these sectors, however. The case of the "Abilities for Creative Digital Industries" program in Colombia is an exception and could be an interesting policy to explore going forward.

Proliferation of government-sponsored or government-owned marketplaces were one of the most salient novelties during the pandemic, but doubts remain regarding how to regulate them and which roles these platforms should play. Partnerships with established private marketplaces, both local and foreign, could incentivize digital trade and formalization among MSMEs, provide them with access to a larger pool of buyers to increase scale, and promote competition and exports. However, governments should be careful not to exacerbate market dominance, which can arise in two-sided markets and markets characterized by first-mover

advantages and could result in inefficiencies and distributional effects (UNCTAD, 2019; World Bank 2020). Whereas government-owned marketplaces could be justified when markets are not existent, rather than attempting to compete with wellestablished private marketplaces governments could focus on lowering entry barriers, avoid preemptive practices, and implement effective competition policies. Certainly, more evidence will be needed to assess the effectiveness of initiatives such as the ones described in chapter 8 and understand if and when government-maintained marketplaces solve market failures and are conducive to higher welfare (e.g., as providers of information or as providers of intermediation services).

In this respect, facilitating access to purely informational online platforms that connect MSMEs with business opportunities in the region could be a promising avenue to explore going forward.⁷⁶ In particular, governments could focus on providing access to platforms for microentrepreneurs producing handicrafts in rural areas, which could help them diversify markets, exploit opportunities to export cultural value, access higher income consumers located in urban centers, and compensate for lower tourism activity. Panama's experience with virtual fairs organized by the Ministry of Culture could prove insightful, also to explore opportunities for artisans and craftsmen to offer online courses and cultural content.

Reducing gaps in the uptake of digital technologies and digital competencies among firms to engage in digital trade may require more than information about technologies and solution providers. Beyond lowering the cost of accessing digital solutions, training MSMEs on

basic digital skills and how to implement standard managerial practices to adapt to new business models may be necessary to ensure MSMEs understand which changes in business models are needed to better harness digital technologies and how these can improve profitability and firm growth. This can be especially appropriate in those countries where other factors of the enabling environment are more advanced and accessible to MSMEs, such as Argentina, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Mexico, Peru, and Uruguay.

Governments should engage more actively to support women digital entrepreneurs. E-commerce has the potential to level the economic playing field for women in developing countries. However, measures to support women digital entrepreneurship have not been widely implemented by governments in the region. Rather, they have been promoted by the private sector and international organizations. Initiatives like the one being implemented by Costa Rica by the "Women and Business 2020" can contribute to reducing digital and income gender gaps. Governments could also play a more active role in advertising and partnering in private sector and international organizations' initiatives aimed at promoting digital entrepreneurship among women.

Even if businesses and individuals acquire digital skills and awareness and understanding of digital business models and their associated opportunities become widespread, the capacity to sustainably develop digital trade will depend on factors of the enabling environment. Increased penetration and quality of digital connectivity, as well as access to digital devices, is a fundamental necessary condition

without which digital trade will not grow in the region. Despite advances in recent years, the region is still highly dependent on international traffic and lags behind in physical infrastructure such as internet exchange points (IXP), content delivery networks (CDN), and data centers (CAF and ECLAC, 2020). Beyond emergency temporary measures taken by governments during the pandemic, long-term digital infrastructure plans and a regulatory framework that fosters publicprivate coordination are needed to ensure universal affordable access to high quality internet (ECLAC, 2020c). Infrastructure and affordability are especially pressing in rural areas and least developed countries in the region, such as Bolivia, El Salvador, Haiti, Honduras, and Nicaragua, where significant fractions of the population do not have access to the internet.

Second to digital connectivity, policies to improve logistics trade facilitation for crossborder e-commerce should be a fundamental pillar to sustain merchandise e-commerce growth in the region going forward. Regarding logistics, besides actions to continue operations during the pandemic, and considering the poor average performance of postal services in the region, relatively little has been done to strengthen their services. Going forward, postal operators need to build capacity and identify opportunities to monetize payment services, delivery services, and platform support. Moreover, enforcing regulations for advanced electronic data needs to be a priority in the short term to adapt to a changing regulatory landscape for international exchange of low-value parcels (Thern-Svanberg and Garcia, 2020). Apart from Brazil, which remains the regional leader in postal services and can provide best practices regarding diversification of services and easy exporting schemes, Costa Rica is a good example of

how to realize value from postal services' universal networks, including partnerships with foreign marketplaces. Both cases can serve as examples of how to complement the private sector to ensure universality.

Advancing on greater compliance with the Trade Facilitation Agreement, in particular with respect to cross-border paperless trade and support to MSMEs, including women, remains crucial for the LAC region. This is especially pressing for most Central American and Caribbean countries, who are underperformers in the region. This includes working towards full implementation of single windows, with greater cooperation between customs, other government agencies, and postal and express operators. The experiences of Brazil, Chile, and Uruguay during the pandemic demonstrate that advancing on this agenda can improve the trade facilitation environment and strengthen resilience in times of crisis. Investment in capacity building and adoption of new technologies, especially those applying artificial intelligence and blockchain, to automate and modernize risk assessment and other custom procedures should allow customs in the region to overcome the challenge of achieving agile management of growing and more diverse e-commerce flows while maintaining efficient and effective controls and inspections. Regional cooperation initiatives such as the CADENA⁷⁷ pilot project supported by the IDB, which implements blockchain to make mutual recognition agreements of AEO programs more secure and efficient, are important to learn more about the potential of new technologies to expedite customs processes. 78

Concerted actions to modernize regulatory and legal frameworks for electronic and digital payments must be more present in strategies

to support the digital transformation.

Governments in the region must work closely with the private sector to devise innovative ways to deepen the penetration of electronic and digital payment systems while preserving privacy and ensuring trust. Allowing for more integration between banking institutions and digital companies, like fintechs, and competition between banks and non-banks, could provide a way to foster innovation, provide better user experiences, and reduce barriers to accessibility derived from low digital skills in some segments of the population. For this to happen in a sustainable fashion, however, current regulations will need to be revised an updated to provide an even playing field to both banks and tech-based companies innovating with non-bank solutions, especially taking into account the region's heavy dependency on cash and high levels of financial exclusion. Regulatory sandboxes, such as the one established by Mexico, should help and enable e-commerce and electronic payments innovators to test their ideas.

Prospects of higher unemployment and informality following the crisis pose a critical challenge to sustain more cashless economies.

As activity gradually returns back to normal, a key question is whether people will revert back to using cash as a payment method. Beyond the change in habits that seems to have emerged during the pandemic, monetary incentives will decidedly shape consumers' and businesses' behavior. If the post-pandemic will leave LAC countries with higher unemployment and higher informality, as well as lower income, and lack of funds and high costs of having a financial account are predominant barriers to financial inclusion, we should expect these constraints to be binding for the expansion of electronic payments along the extensive margin (i.e., reaching low-income segments and the unbanked) in a post-pandemic recovery. Initiatives

like the ones in Costa Rica and Mexico to promote the adoption of electronic payments are promising in this respect.

From a regional perspective, for e-commerce to enable growing economic regional integration, countries will need to advance on improving the regulatory environment for cross-border digital payments. Promoting international interoperability, almost inexistent in the region, is a priority. Introducing regulation to enable interoperability and lowering the cost of integrating domestic bank accounts, as is being done in Brazil and Argentina, is a first step in the right direction. Governments could also involve in regional efforts to incorporate governance schemes for digital payments in trade agreements. The recent DEPA agreement signed by Chile includes interesting innovations in this respect and could serve as an example to encourage interoperability in other regional discussions. Active discussions among countries of the Pacific Alliance are also promising.

As governments in the region explore policies to foster the adoption of digital business models and expand e-commerce, measurement and the availability of data are a necessary condition to ensure accountable, effective, and evidence**based policy processes.** Especially if the region aims at leveraging e-commerce to further economic integration, "the key to the effective and efficient management of cross-border e-commerce is the use of timely and accurate information, ideally from its source, to allow the early risk assessment and clearance of legitimate transactions in an automated environment with minimum need for physical interventions", as the Secretary General of the World Customs Organization has put it (WCO, 2018, p. 3). However, as chapter 6 implicitly shows, official sources of data and high frequency metrics are scarce and fail to cover all countries in the region, typically being biased towards most developed economies.79 Therefore, efforts should be made to strengthen and make statistical systems more flexible to new methodologies and practices related to measuring the digital transformation. In particular, customs administrations should strive to measure cross-border comparable e-commerce statistics following international standards (WCO, 2018). In addition, and considering that most of the data that can characterize the evolution of digital trade is largely produced and stored by businesses, partnering with the private sector will be important to produce accurate insights in a cost-effective manner (OECD 2020a, OECD et al. 2020, OECD 2019a). Evaluation of policies is also critical, especially in a field that still lacks conclusive evidence about the mechanisms that operate behind the adoption of digital technologies and new business models in developing countries and their impact on welfare, and where substantial policy experimentation is ongoing.

Harnessing e-commerce and digital trade will demand work on several policy domains that complement and potentiate other, involving stakeholders in the public and the private sector alike. E-commerce is a multidimensional phenomenon that involves several policy domains in different areas of government at the national and subnational levels. For this reason, institutionalizing cooperation and coordination among governmental bodies and agencies is key to design and implement successful e-commerce development strategies. Instead, in most countries, initiatives to foster e-commerce during the pandemic seem to have been the product of reactions to the emergency rather than calculated steps within a clear (or emerging) longterm strategy. Moreover, governments should

strive to maintain an open and constructive dialogue with industry participants and civil society, trying to isolate long-term policy processes from political instability. As has become evident from the challenges that LAC needs to address, the development of a thriving digital trade environment in the region depends not only on the quality of digital infrastructure, trade facilitation, and logistics, but also on the incentives, the level of certainty, and trustworthiness provided by the regulatory and legal frameworks, including those for digital security and online consumer protection. The design of these frameworks should be a multistakeholder, industry-participated process, where actors from the private sector and civil society can bring in lessons learned from the experience of other countries and regions. The experiences of Brazil, Colombia, and Costa Rica can provide examples of successful policy processes that align private and public interests within a consistent e-commerce national strategy. More importantly going forward, programs and initiatives to promote e-commerce should be articulated and coordinated at the national level within broader digital transformation strategies, such as national Digital Agendas, to maintain consistency and effectiveness and avoid duplications of interventions.

The COVID-19 crisis must be an opportunity for LAC countries to re-assess their e-commerce strategies. Despite commendable efforts to strengthen economic resilience during the pandemic and emerging best practices implemented in some countries, very few countries appear to have taken the crisis as an opportunity the re-assess structural policy priorities effectively and take concerted actions to advance on a consistent, long-term, sustainable e-commerce strategy that can put digital trade at the forefront

of economic recovery in a post-pandemic scenario.

Countries should strengthen regional cooperation mechanisms in digital matters to promote digital trade, especially within the framework of the Digital Agenda for Latin America and the Caribbean. This implies establishing a regional conversation which can result in regional strategic initiatives to leverage national endeavors. Going forward, countries should not let the COVID-19 crisis go to waste, and take it as an opportunity to learn from best practices implemented recently, engage in international cooperation efforts to bridge long-standing digital and regulatory gaps, and get involved in multilateral initiatives to address common challenges arising from growing e-commerce (OECD et al. 2020). In this respect, the Digital Agenda for Latin America and the Caribbean (eLAC2022) represents an ideal environment to guide the design of digital policies in the region and drive regional cooperation agreements to support the digital transformation (ECLAC, 2020e). Under this framework, countries already agree on national but also regional goals and priorities. A fundamental agreement of the Agenda was to promote a regional digital market with the aim to reduce barriers to digital trade and leverage the scale economies of a more integrated market (ECLAC, 2020e). The proposal to build a regional digital market is key from the point of view of e-commerce, as it is a way to materialize several policy instruments to harmonize regulations and legal frameworks and promote joint innovation and entrepreneurship projects. The Pacific Alliance, Mercosur, the Mesoamerica Project are already developing digital agendas with this goal.

To strengthen their e-commerce strategies moving forward, countries can also take advantage of the resources available under the global eTrade for All initiative.

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NOTES

19 See ECLAC and ILO (2020) for a review of available evidence on the impact of the pandemic on firm activity.

20 Economic activity and poverty estimates are from ECLAC (2020a). Labor market estimates are from ECLAC and ILO (2020). International trade flows estimates are from Giordano (2020). See also ECLAC (2020d) for an account of the impact of the pandemic on the region along other dimensions.

- 21 See UNCTAD (2015), OECD (2019a), and OECD (2020a) for related definitions of e-commerce and digital trade that support this approach.
- 22 The discussion in this chapter abstracts from technological and legal trends related to internet regulation. See ECLAC and I&JPN (2020) for a comprehensive treatment of these topics.
- 23 Payment of bills should not necessarily be considered as e-commerce, but unfortunately the indicator does not distinguish between purchases and payments of bills.
- 24 The increase in the use of digital payments in Venezuela between 2014 and 2017 can be attributed to financial instability and hyperinflation, which have spurred a surge in electronic and digital payment methods, with the government implementing its own virtual wallet in 2018.
- 25 The compound annual rate was 9.6% between 1998 and 2008, and 16.9% between 2008 and 2018.
- 26 Data for international postal service suffers from missing and non-available data starting in 2015 for several countries, which may substantially underestimate actual shipments.
- 27 See ECLAC (2018) for a more thorough assessment of e-commerce trends in the LAC region in the last years.
- 28 The share of internet users shopping online for Brazil, Chile, Colombia, Mexico, and Paraguay are from official sources. For the rest of LAC countries included in Figure 6A, data are from the FINDEX database (Demirgüç-Kunt et al. 2018), which in turn draws on survey data from the Gallup World Poll. Gallup samples do not necessarily target the same income groups in all countries, nor are they always representative of all income groups for a single country (see Demirgüç-Kunt et al. 2018, p. 111 for a description of the survey methodology and details about national samples). Differences in survey design and coverage imply potential limitations to comparability of data across countries.

29 Fast-moving consumer goods are defined as affordable consumption products that are sold quickly and at a relatively low cost. Typically, these are retail goods that can be bought in supermarkets, e.g., beverages, packaged food, meat, baked goods, clothing, laundry products, or low-cost electronics.

30 According to UNCTAD (2020), B2C sales data are not directly comparable and should therefore be interpreted carefully. In particular, B2C e-commerce sales for Brazil are from Ebit | Nielsen based on a demand survey, and for Mexico from Asociación de Internet MX and based on a demand survey. See UNCTAD (2020) for additional details on sources of data and methodology.

31 Data do not distinguish between domestic and cross-border e-commerce penetration.

32 Traffic corresponds to the following e-commerce retail websites in Argentina, Brazil, Chile, Colombia, and Mexico: mercadolibre.com.ar and cotodigital3.com.ar, mercadolivre.com.br, olx. com.br, mercadolibre.cl, falabella.cl, olx.com.co, mercadolibre.com.co, mercadolibre.com.mx, and amazon.com.mx.

33 Although data do not distinguish between domestic and cross-border e-commerce, most sales through Mercado Libre correspond to domestic B2C and C2C transactions.

34 See Giordano (2020), which includes a detailed account of international trade dynamics during the COVID-19 crisis in the region. See also ECLAC (2020b).

35 See Giordano (2020). Data for the second quarter are preliminary and only include Argentina, Brazil, Chile, Colombia, Mexico, Peru, and Paraguay.

36 Even when these data are available, they do not cover the universe of cross-border e-commerce transactions (e.g., only below de minimis levels) and should be considered as proxies.

37 Consistent with this, according to survey results from the Uruguay Digital Economy Chamber (2020), the share of internet users who purchased in foreign online stores fell from 20% in January-July 2019 to 9% in the same period of 2020, and the share of consumers purchasing in foreign marketplaces fell from 38% to 18% in the same period. Similar decreases were reported for visits and conversion rates.

38 Unfortunately, data for flights arriving in the region are not available from ICAO. However, the number of flights originating in the region should be highly positively correlated with the number of arriving flights.

39 In the Caribbean region, LIAT, the airline traditionally used to transport mail to the regional postage hub in Barbados, interrupted its service. In March, the St. Vincent and the Grenadines Postal

40 See ECLAC (2020b) for additional data on container port activity by port and a full depiction of the impact of COVID-19 on transport and logistics in the region.

41 See also Estevadeordal et al. (2020) for a discussion of challenges and policy recommendations facing trade integration in the region in the context of growing digitalization.

42 UNCTAD's B2C e-commerce index measures an economy's preparedness to support online shopping. It is computed as the average of four indicators: (1) account ownership at a financial institution or with a mobile-money-service provider (% of the population aged 15+); (2) individuals using the Internet (% of population); (3) a postal reliability index; and (4) secure Internet servers (per million people). The index is highly correlated with the share of people shopping online, with an adjusted R squared value of 0.8. See UNCATD (2019a) for additional information about sources and methodology.

43 See also OECD et al. (2020) for country-level profiles of internet access and use by income deciles.

44 Evidence about the effects of market integration through on-line trading platforms on rural development in developing countries is scarce, however. Couture, Faber, Gu, and Liu (2020) study a nationwide e-commerce expansion program in China and find little evidence for income gains to rural producers and workers. Instead, the gains are driven by a reduction in cost of living for a minority of rural households who tend to be younger, richer and in more remote markets. See also World Bank (2020), Ch. 6.

45 See Mesquita Moreira and Stein (2019) and ECLAC (2019).

46 Mexico, Brazil, Costa Rica and Uruguay are good examples of well-functioning single windows in the region. Still, results from the Global Survey on Digital and Sustainable Trade Facilitation 2019 show that only 2 countries in the region, Chile and Peru, had fully implemented single windows (ECLAC, 2019). And even among these, Peru has yet to fully integrate its single window with customs systems and, in Chile, the single window is still underutilized. See also Volpe Martincus (2016) for an assessment of single windows for international trade and other trade facilitation initiatives in LAC.

47 In fact, lack of access to training was identified as a major challenge by countries in order to make progress in these categories. See ECLAC (2019) for a full assessment of Latin America and the Caribbean's results in the Global Survey on Digital and Sustainable Trade Facilitation 2019.

48 See De Marco (2020).

49 The DTRI is computed by the European Centre for International Political Economy (ECIPE) to measure the extent to which countries restrict digital trade. It includes 65 countries and takes into account more than 100 policy dimensions, such as import bans, local content requirements, blocking of web content, and regulations on social networks, organized in four broad policy clusters: fiscal restrictions and market access, establishment restrictions, restrictions on data, and trading restrictions. See Ferracane et al. (2018) for definitions and methodology.

50 "Online sales and transactions" corresponds to Chapter 13 of the index, within the trading restrictions cluster, and is defined as "cost-enhancing measures that obstruct the efficient flow of online sales and transactions". It includes barriers to fulfillment, DNS registration requirements, online sales, and discriminatory consumer protection law for online sales. See Ferracane et al. (2018), p. 115 for additional details about definition and sources of primary data. "Content access" is Chapter 10 of the index, within the restrictions on data cluster, and is defined as "policy measures related to content access online". It includes censorship and filtering of web content, bandwidth and net neutrality, and other restrictive practices. See Ferracane et al. (2018), p. 105 for additional details about definition and sources of primary data. Country-level index scores for these chapters are not available.

51 The OECD Digital Services Trade Restrictiveness Index (Digital STRI) identifies cross-cutting barriers that inhibit or completely prohibit firms' ability to supply services using electronic networks. It takes into account issues related to infrastructure and connectivity, electronic transactions, payment systems, intellectual property rights, and other barriers affecting trade in digitally enabled services. See Ferencz (2019) for details about methodology and sources of data.

52 See Herreros (2019) for a full account of cross-border e-commerce regulations in trade agreements in the LAC region.

53 Among other issues, the DEPA addresses national treatment and nondiscrimination of digital products, e-invoicing and electronic payments, personal data and online consumer protection, cybersecurity, free data flows, and commitments to share best practices for promoting and developing new last-mile logistics technologies.

54 In 2019, estimates by the IDB and the America's Business Dialogue, suggested that banking penetration in the region, although growing, would be a slow process expected to grow 3-5% in a 5-year horizon.

55 See Cricco (2017) for an analysis of costs associated to electronic payments in Argentina, Brazil, Chile, Colombia, Paraguay, Peru, and Uruguay.

56 For Brazil, CGI (2020) finds that clients' direct contact with businesses became more intensive during the pandemic, and 46% of internet users who bought online did it through WhatsApp, Skype, or Telegram, compared to 26% in 2018.

58 See UNCTAD (2019b), especially Ch. IV, for an in-depth analysis of the growing presence and market dominance of digital platforms.

59 See Perez-Vincent et al. (2020) for evidence of higher domestic violence against women in Argentina.

- 60 The purpose of the survey was to understand policy responses motivated by the emergency of the COVID-19 pandemic. However, responses include measures that were not directly associated to it, e.g., regulations passed in February 2020. Additionally, it could be the case that respondents were not in full awareness of all measures taken by all areas of government, so there could be omissions in some policy domains.
- 61 See also IDB (2020) and UNDESA (2020) for examples of policy responses in selected LAC countries and other countries outside the region, and ECLAC's COVID-19 Observatory in Latin America and the Caribbean (https://www.cepal.org/en/topics/covid-19).
- 62 See Heredia (2020) for a review of policies to promote digitalization among MSMEs in LAC.
- 63 The program was motivated during the pandemic by the observation that micro and small businesses were not familiarized with e-commerce and could face challenges to survive the crisis. Its goal is to reach 3,500 entrepreneurs selling online by 2021.
- 64 The draft document by CONPES (2020) mentions the eTrade for Women initiative as an example that will be taken into account for this aim.
- 65 The initiative is part of the European Union-funded project Linking Central American Women-Owned Businesses with the Global Gifts and Home Decoration Market, which is implemented by ITC in collaboration with SIECA and local partner institutions. The initiative sets out to improve product design and the export capability of women-led businesses, and is placing significant focus on using new e-commerce channels to open new business opportunities.
- 66 Although not directly related to COVID-19 responses, the ITC also supports Central American women craft businesses through the ecomConnect community engagement platform, where they are connected with e-commerce experts and businesses, with access to free e-commerce learning resources and market developments.
- 67 See CAF and ECLAC (2020) for a comprehensive list of regulatory measures taken to ensure internet connectivity during the COVID-19 emergency in the region.
- 68 In Argentina, this prohibition was limited to three months of non-payment and disadvantaged

groups, such as beneficiaries of social programs, micro enterprises, retired people, or the unemployed.

69 Due to increasing parcels receipts from Asian marketplaces AliExpress and Wish, in 2017 the Costa Rican Post set up a special service for shipments originating in those platforms.

70 These measures should not be seen as a best practice and emerged in general as customs and border management entities were overwhelmed by the COVID-19 crisis. In fact, there were cases of health items not complying with basic standards, or COVID tests that resulted defective.

71 See the World Customs Organization (WCO) COVID-19 dedicated website for a full list of measures taken by countries in the LAC region (http://www.wcoomd.org/en/topics/facilitation/activities-and-programmes/natural-disaster/coronavirus.aspx and https://wco-americaribe.org/wp-content/uploads/2020/04/Buenas-pr%C3%A1cticas-de-las-aduanas-de-las-Am%C3%A9ricas-y-el-Caribe-ENG-20200407-.pdf).

72 The operation was approved in June and is in line with Colombia's National Logistics Policy, which was approved by the CONPES in February 2020.

73 See https://alianzapacifico.net/servicios-inversiones-y-economia-digital-ante-el-covid_19/#1586225199043-c0b3fc54-aa40.

74 See https://www.bcb.gov.br/estabilidadefinanceira/pix for a detailed description of Pix.

75 Other than allowing the internationalization of MSMEs disproportionately more than for large firms (Suominen, 2017, 2019), it remains an open question the extent to which digital channels can significantly affect exports of goods along the intensive margin in the region.

76 Carballo et al. (2020) present evidence that suggests that, by providing information and lowering search costs, ConnectAmericas, an IDB informational online platform, resulted in increased firms exports, particularly from those that had no digital presence.

77 IDB (2020) "Revista Integración & Comercio: Año 24: No. 46: diciembre 2020: Blockchain y comercio internacional: Nuevas tecnologías para una mayor y mejor inserción internacional de América Latina"

78 See Estevadeordal et al. (2020) for a discussion of the potential of using new digital technologies to enhance trade facilitation in the region.

79 See also OECD et al. (2020).

