# BEYOND THE RECOVERY

COMPETING FOR MARKET SHARE IN THE DIGITAL ERA

Coordinated by **Paolo Giordano** 

Integration and Trade Sector





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The Trade and Integration Monitor is an annual report that tracks the state of Latin American and Caribbean integration into the global trading system. It draws on publicly available data from INTrade, the Inter-American Development Bank (IDB) trade and integration information system (www.intradebid.org).

The Monitor is the result of a collaborative research effort undertaken within the IDB Integration and Trade Sector (INT) and its Institute for the Integration of Latin America and the Caribbean (INTAL), carried out under the general supervision of Antoni Estevadeordal, Sector Manager.

This edition was coordinated by Paolo Giordano, INT Principal Economist, and written in collaboration with Alejandro Ramos, INTAL Senior Economist, Kathia Michalczewsky and Bárbara Ramos, INTAL and INT consultants, respectively. Jésica De Angelis, Cloe Ortiz de Mendívil, Ziga Vodusek and Jeremy Harris participated extensively in the research and provided support in the preparation of the document.

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## **Prologue**

Global merchandise trade, which had been contracting since mid-2014, began to recover in 2016. In the first half of 2017, the value of world trade grew thanks to a rebound in prices and an increase in the volume of goods traded. Similarly, global exports of services recorded a modest expansion in the first months of 2017.

In line with the global trend, the value of Latin American and Caribbean (LAC) exports of goods and services gradually recovered during 2016, and grew considerably in the first half of 2017. The primary driver of regional growth in foreign sales, unlike that of global flows, was a strong increase in commodity prices, with only a modest increase in export volumes. The factors that sustained the recovery have nonetheless began to falter, highlighting the region's vulnerability to external dynamics and limited competitiveness in global markets.

The 2017 Trade and Integration Monitor analyzes multiple aspects of the current recovery, and examines the region's ability to compete for markets. This edition is the most recent in a series of reports prepared by the Integration and Trade Sector of the Inter-American Development Bank (IDB) that study the evolution of LAC's participation in the world trading system, using the data available in INTrade, the IDB trade and integration information system.

The report argues that, having overcome the longest trade contraction in recent history, the outlook for LAC countries is substantially less favorable than the one that prevailed before the crisis. In this context, the region's competitiveness limitations become more pervasive and magnify the impact of exogenous factors, such as the decline in commodity prices and the emergence of protectionist tendencies that could restrict access to key markets.

Given the fragility of the recovery and the instability of the factors sustaining it, we hope that this edition of the *Trade and Integration Monitor* provides the countries of the region information to design and implement policies aimed at increasing competitiveness and taking advantage of new opportunities in international trade brought about by the spread of the digital economy.

Antoni Estevadeordal Manager, Integration and Trade Sector

### **List of Abbreviations**

ANZC Australia, New Zealand and Canada

AM Agricultural Manufactures

AP Agricultural Primary (Products)

B2B Business to Business
B2C Business to Consumer
B2G Business to Government
C&D Commodities and Derivatives

C2B Consumer to Business
C2C Consumer to Consumer

EU European Union F&E Fuels and Energy

GDP Gross Domestic Product

ITC Information and Communication Technologies

IM Industrial Manufactures

LA Latin America

LAC Latin America and the Caribbean

MM Mineral Manufactures

MP Mineral Primary (Products)

OECD Organisation for Economic Co-operation and Development

OPEC Organization of the Petroleum Exporting Countries

PM Primary Manufactures
PP Primary Products

PTA Preferential Trade Agreement

SME Small and Medium-sized Enterprises

ROW Rest of the World

RGA Russia and Oil Producing Countries from the Gulf and Africa

TPP Trans-Pacific Partnership

U.S. United States

WTO World Trade Organization

## **Executive Summary**

The value of exports from Latin America and the Caribbean (LAC) started to recover in 2016, and increased a notable 13.2% year-on-year in the first half of 2017. The regional recovery, however, was driven by a volatile increase in prices associated with a fragile expansion of export volumes, concentrated moreover in a few economies. Despite the recent trend reversal, in a medium-term perspective, the region has lost participation in several markets, particularly the intraregional one, and mostly due to low competitiveness. Coming out of the longest trade recession in its recent history, LAC faces a global scenario in which the tailwinds that sustained the pre-crisis growth have run out, and uncertainty regarding access to external markets has increased. This outlook underscores the urgent need of adopting policies to stimulate productivity and improve the region's competitive position in international markets, and to take advantage of the opportunities generated by disruptive technologies such as electronic commerce.

This edition of the *Trade and Integration Monitor* identifies the factors that drove the recent recovery in LAC exports, examines their sustainability and, looking forward, maps the region's competitiveness in the digital era.

The recovery of regional exports of goods has been primarily driven by a rebound in commodity prices, while trade in services has been displaying greater resilience. Projections for the second half of 2017 nonetheless point to a growth slowdown.

LAC benefited from increases in the price of oil and other mineral commodities, but remained removed from the most dynamic poles of real growth in global trade. The increase in prices led to improvements in the region's terms of trade and current account balances. The latter were nonetheless insufficient to reverse the deficits accumulated over four years of trade contraction. Regional exports of goods grew 13.2% in nominal year-on-year terms in the first half of 2017, but only 3% in real terms, substantially below the global rate. Meanwhile, services exports displayed greater resilience, expanding around 9.7% year-on-year in the first quarter of 2017, above the

3.3% global figure. However, the factors that sustained the regional export recovery began to falter in the second quarter of 2017. In fact, recent indicators suggest a deceleration of the regional export dynamic in the near future, casting uncertainty over the sustainability of the recovery.

From a medium-term perspective, Latin American and Caribbean exports grew at a lower rate than world trade due to both the composition of the region's export basket, biased towards primary products, and its declining ability to compete in foreign markets. Moreover, the loss in market share has been increasingly explained by competitiveness shortcomings.

Regional exports expanded 2.5% in the post crisis (2010-2015), while the corresponding increase in world trade was 4.1%. As a result, LAC's share in global trade fell from 6.16% in 2010 to 6.07% in 2015. While the decline may seem relatively insignificant, it is equivalent to 1.6% of all regional exports in 2015, and represents a loss of US\$14.3 billion for the region. An analysis of LAC's competitive position in international markets in recent years indicates that the weak trade performance is explained by competitiveness shortcomings, in addition to declining global demand for the region's export products. This result tempers the supposedly penalizing impact of specializing in natural resources, and highlights the need to sustain the productive capacity of all sectors to compete in international markets.

Looking forward, and in a context of fragile growth and low competitiveness, electronic commerce emerges as a revitalizing force. The region nonetheless lags in the adoption of a modern and harmonized regulatory framework. This adds to both analog and digital barriers to trade that prevent businesses from taking advantage of the opportunities arising from disruptive technologies.

LAC has the potential to expand its presence in cross-border electronic commerce (e-commerce), especially in the business to business and business to consumer segments that are growing at rates substantially higher than global merchandise trade. To realize its potential, the region must overcome traditional obstacles to trade, whose costs are proportionally higher for operators in the new economy, as well as specific barriers related to the digital nature of e-commerce. A detailed review of the international commitments undertaken by LAC countries reveals that the regional regulatory framework is relatively incomplete and fragmented. This provides ample opportunity for reform, as governments place the issue at the forefront of the multilateral trade agenda.

Having overcome the longest trade contraction in recent history, LAC countries face a trade outlook substantially less propitious than the one that prevailed before the crisis. The end of the commodity price boom that had sustained external demand for more than a decade, the endemic competitiveness limitations that resulted in an erosion of regional and global market shares, and protectionist tendencies that could hinder access to key markets, all raise the urgent need of implementing policies to stimulate productivity and improve the region's competitive position in international markets, and to harness the opportunities generated by disruptive technologies such as electronic commerce.

### Introduction

In the past four years, Latin America and the Caribbean (LAC) underwent the longest trade contraction in its recent history. This resulted from a major correction in commodity prices, coupled by a prolonged regional recession. In 2016, the region's foreign sales started to recover, sustained by a rebound in prices and a modest increase in export volumes. However, the recovery seems fragile, as prices have plateaued and the region remains relatively insulated from the most dynamic poles of global trade. In the aftermath of the global trade recession, LAC faces the challenge of regaining market share as opportunities emerge with the digitalization of trade.

This document provides a detailed analysis of the recent recovery in regional exports of goods and services, and concludes that LAC faces a trade outlook substantially less favorable than the one that prevailed before the crisis. The end of the commodity price boom that had sustained external demand for more than a decade, the endemic competitiveness limitations that led to a loss of regional and global market share, as well as protectionist tendencies that could hamper access to key markets, underscore the need to prioritize productivity-enhancing policies specifically aimed at strengthening the capacity of exporters to compete in global markets.

The first chapter examines the main features of the trend reversal in global and regional trade since the beginning of 2016, documenting the degree to which the recovery seems sustainable. The second chapter offers a detailed view of recent regional trade performance, highlighting the singularities of each country and subregion, and specifying the effects of changes in prices and volumes. The third chapter, with a longer-term perspective, presents a novel database on the competitive position of the region in global markets. In order to identify the main determinants of changes in global market share, the variation in regional exports is decomposed into factors related both to the structural transformations in external demand and to competitiveness. Finally, the fourth chapter evaluates the opportunities of electronic commerce in the region. Specifically, in addition to providing an overview of the size and potential of the market, and identifying the main obstacles to e-commerce development, the chapter analyzes the underlying regulatory framework, revealing the gap between the region and global best practices.

# The Trend Reversal in World Trade

Global trade entered a recovery phase at the beginning of 2016. In merchandise trade, the impulse came initially from an increase in prices, which was complemented by an expansion of trade volumes at the beginning of 2017. The global improvement was mainly due to demand shifts in developing countries. In Latin America and the Caribbean, merchandise exports followed the global trend, though with a more marked impulse from surging prices. Regional trade in services, in turn, grew at a faster pace than the world average. The region's terms of trade improved slightly, leading to smaller current account deficits. In the second half of 2017, however, the factors that sustained the recovery of global trade in general, and of regional exports in particular, appeared to be reaching their limit.

#### The Improved Global Outlook

The value of global merchandise trade started to recover at the beginning of 2016. Although the improvement extended to the first half of 2017, there remains uncertainty regarding its sustainability. The contraction accumulated in 2016 was 3.7%, less than the 11.8% registered in 2015 (Figure 1). This performance was explained by the fact that prices fell less in

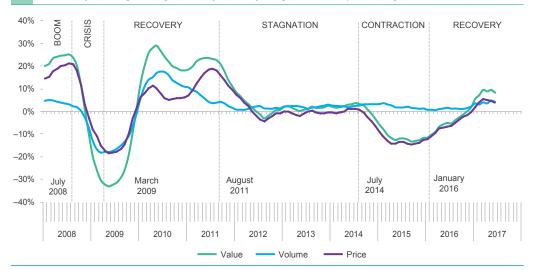
World trade returned to a growth path.

2016 (-5.1%) than in the previous year (-13.5%), as volumes grew only 1.4%. In the first half of 2017, the trend reversal became clear as global trade expanded 8.9%, driven by increases in both prices (4.6%) and volumes (4.1%). As a result, the second period of trade contraction in a decade, which lasted 25 months, or twice the length of the previous contraction registered during the global financial crisis, came to an end.<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> Despite lasting longer, the recent contraction was less deep than the previous one: at the minimum reached in January 2016, world trade was 19.5% below the previous maximum achieved in July 2014, while during the financial crisis, between July 2008 and March 2009, world trade lost 37.1% of its value. Furthermore, unlike that occasion, in which both prices and volumes registered considerable declines, the recent contraction was explained primarily by a reduction in prices.

#### FIGURE 1 • WORLD TRADE IN GOODS TRENDS

(Quarterly moving average of the year-on-year growth rate, percentage, 2008-2017)



Source: IDB Integration and Trade Sector with data from the Netherlands Bureau for Economic Policy Analysis (CPB) and own estimates.

Note: The value of global trade corresponds to the average of world imports and exports (see Methodological Annexes 1 and 3).

Developing countries drove global exchanges.

However, the stimulus started to fade in April, as the increase in prices slowed down due to less favorable conditions in commodity markets and as the expansion of volumes lessened (Box 1).

Imports of developing countries drove the contraction of world trade in 2016, as well as the recovery in the first half of 2017. In both cases, this group of countries explained around two thirds of the variation in global flows. In 2016, purchases by

developing countries retracted at a rate that doubled the one of developed countries (5.3% and 2.6%, respectively) (Figure 2). The difference in performance between the two groups was even more evident in the first half of 2017: between January and June, the year-on-year expansion in imports of developing countries was 14.9%, while those of developed countries was 5.2%. However, beginning

in April, as developing countries reduced their purchases, so did the pace of recovery.

The contraction of the value of imports in 2016 was determined by reductions in prices, in a context of weak expansion of volumes. In the case of developed countries, prices fell 4.5%, and volumes grew 2.0%, while for developing countries prices fell 5.9% and volumes grew 0.5%. However, in the first half of 2017,

Goods prices and volumes increased in 2017.

the recovery responded not only to a rebound in prices, but also to a faster growth of volumes, especially in developing countries (Figure 3). The 14.9% year-on-year change

#### **BOX 1: SHORT TERM SUSTAINABILITY OF THE TRADE RECOVERY**

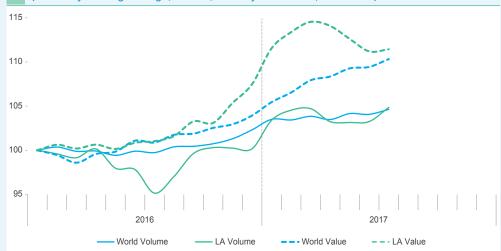
A short-term analysis of global and regional trade flows, based on monthly variations and a relatively recent basis of comparison, provides information on recent trade dynamics. The volume of global trade followed a growth trajectory that accelerated between the middle of 2016 and the beginning of 2017, but stabilized in the following months. The dynamic of Latin American real exports is similar, though with variations of greater magnitude. The trend in the value of regional exports essentially reflects the movement of commodity prices that, after a sharp increase, slowed down and started to decline.

The sustainability of the trade rebound can be evaluated with proxy measures of trade activity. These metrics reflect both real phenomena and perceptions of trade operators. Although some indicators point to a deceleration in trade flows, others signal positive expectations.

Among the indicators of real activity, global industrial production followed a positive trend in the early months of 2017, but fell 0.1% in July.<sup>a</sup> Monthly indicators of trade volumes transported by air increased at the beginning of the year, but stagnated in June and fell in July.<sup>b</sup> In contrast, the index of container movement in the 82 principal global ports<sup>c</sup> maintained its upward trend through August, although the indicator reflects contracts negotiated well in advance and, therefore, has a relatively longer adjustment period.

#### VALUE AND VOLUME OF WORLD TRADE AND LATIN AMERICAN EXPORTS

(Quarterly moving average, indices, January 2016 = 100, 2016–2017)



Source: IDB Integration and Trade Sector with data from the CPB.

Note: The global trade series correspond to the average of deseasonalized imports and exports.

(continued on next page)

<sup>&</sup>lt;sup>a</sup> According to CPB data;

 $<sup>^{\</sup>mathrm{b}}$  Volume measured in freight ton kilometers, according to data from the International Air Transport Association (IATA);

 $<sup>^{\</sup>rm c}$  Index RWI/ISL compiled by the Institute of Shipping Economics and Logistics;

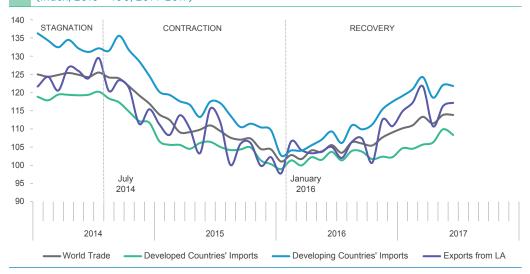
#### **BOX 1: SHORT TERM SUSTAINABILITY OF THE TRADE RECOVERY** (continued)

Regarding indicators of perception, the Purchasing Managers Index (PMI) anticipates a sustained expansion of global activity, with levels above 50 for the first 9 months of the year. The global manufactures component reached 53.2 in September, a level equal to that of August and the highest in the past 75 months.<sup>d</sup> Disaggregating by country, the indicators for the United States (U.S.) and the euro zone were higher, but the one for China was lower than in the previous month.<sup>e</sup> The mixed signals that arise from these indicators are not conclusive, but may anticipate slower growth of trade volumes.

Looking forward, global economic activity projections for 2018 indicate a stabilization after the current year's rebound. However, uncertainty regarding the direction of economic policy and financial risks, among other factors, could affect market confidence and, consequently, economic growth. Therefore, the most recent data point to a stabilization of global trade until the end of the year, and lower regional export growth rates than those observed in the first semester.

#### FIGURE 2 • VALUE OF WORLD TRADE IN GOODS

(Index, 2010 = 100, 2014-2017)



Source: IDB Integration and Trade Sector with data from the CPB and own estimates.

Note: The value of world trade corresponds to the average of world imports and exports. The value of exports from Latin America corresponds to an IDB estimation and does not include the Caribbean (see Methodological Annexes 1 and 3).

<sup>&</sup>lt;sup>d</sup> Index compiled by J.P Morgan and IHS Markit, in association with ISM and IFPSM;

<sup>&</sup>lt;sup>e</sup> Indices for the U.S. and the euro zone compiled by IHS Markit, and for China correspond to the Caixin China General Manufacturing PMI, reported by Markit;

f IMF (2017a).





Source: IDB Integration and Trade Sector with data from the CPB and own estimates.

Note: The value of world trade corresponds to the average of world imports and exports. The value of exports from Latin America corresponds to an IDB estimation and does not include the Caribbean (see Methodological Annexes 1 and 3).

in the value of developing country imports registered in January-June 2017 was the product of a 7.1% increase in prices and a 7.3% in volumes. In developed countries, the increase in prices (3.0%) was lower than in the previous year, while the increase in volumes remained stable (2.1%). Starting in April, the lower growth of import value was due to more moderate price increases, which affected both groups of countries, and subdued real purchases of developing countries. In this context, exports from Latin America registered a significant year-on-year increase of 13.1% between January and June of 2017, driven mainly by the surge in export prices (9.8%).

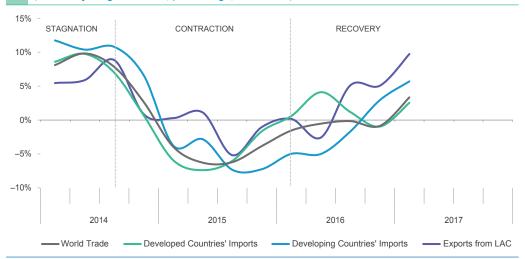
Trade in services has followed the evolution of merchandise trade, given the strong links between trade in goods and some services sectors, such as transportation. However, services displayed greater resilience, as contractions were smaller than those registered in goods. In 2016, the international flow of services contracted 0.8%, an improvement with respect to

Services flows were more resilient.

2015, when it declined 5.1% (Figure 4). As with trade in goods, shifts in developing country imports drove the global performance. In fact, the contraction in 2016 resulted from reduced imports in developing countries (-2.2%), partially compensated by marginally increasing imports in developed countries (1.2%). In the first quarter of 2017, preliminary estimates indicate a slight year-on-year expansion of 3.3%, driven mainly by the growth of developing countries' imports (5.7%). Imports of developed countries are estimated to have grown 2.6%, which even though it is higher than the rate of the previous year, it is less than half the growth observed in emerging

#### FIGURE 4 • VALUE OF WORLD TRADE IN SERVICES

(Year-on-year growth rate, percentage, 2014-2017)



Source: IDB Integration and Trade Sector with data from the International Monetary Fund (IMF) and the World Trade Organization (WTO).

*Note:* Global trade is calculated as the average of total imports and exports. All components of the services account of the balance of payments are included, except construction and government services for the whole series, and manufacturing, maintenance, and repair of goods services. Data for the first quarter of 2017 are estimates.

economies. In this sector, LAC displayed a superior performance compared to both the world average and trade in goods. Regional services exports grew 1.9% in 2016, entering positive territory before the rest of the world and before trade in goods. In the first three months of 2017, services exports are estimated to have grown 9.7% year-on-year.

#### **The Boost from Foreign Demand**

Growth in the main global economies accelerated.

External demand remained weak throughout 2016, but increased afterwards. The marginal increment in export volumes in 2016 reflected moderate rates of growth in the main economies. The U.S. economy decelerated more sharply: gross domestic product (GDP) grew 1.5% in 2016, almost half the rate of 2015 (2.9%). Other countries registered growth rates slightly lower than the

previous year's: China's rate went from 6.9% in 2015 to 6.7% in 2016, the euro zone's from 1.9% to 1.7%, and Japan's from 1.2% to 1.0%. Latin America's output contracted 0.8% following recessions in Brazil and Argentina (Figure 5).<sup>2</sup> However, the downward

<sup>&</sup>lt;sup>2</sup> For an evaluation of the growth prospects of LAC's trade partners in the next quarters, see the most recent editions of the *World Economic Outlook* (IMF, 2017a) and *Regional Economic Perspectives* (IMF, 2017b).

#### FIGURE 5 • GDP GROWTH IN SELECTED ECONOMIES





Source: IDB Integration and Trade Sector with data from the IMF, U.S. Bureau of Economic Analysis (BEA), Organisation for Economic Co-operation and Development (OECD), Japan's Institute for Economic and Social Research, and other official sources.

*Note:* LA-6 corresponds to the weighted average of the GDP growth rates of Argentina, Brazil, Chile, Colombia, Mexico, and Peru. The weights are based on GDP valued at purchasing power parity.

trend was reversed in late 2016, with marginally accelerating GDP growth rates. This change partially explains the increase in volumes traded registered in the last quarter of 2016 and the first semester of 2017. In the first half of the year, the U.S. economy grew 2.1% year-on-year, spurred by inventory accumulation, consumption growth, and higher business confidence. In China, the slight acceleration to 6.9% year-on-year was linked to the credit stimulus and public investment. Finally, growth in the euro zone reached 2.0% year-on-year due to expansionary monetary policy, the positive impact of elections, and a relatively weak euro. Latin America, for its part, reversed the negative trend in 2017 and grew 1.0% in the first half, thanks to relative improvements in Argentina and Brazil, and a slight acceleration in Mexico.

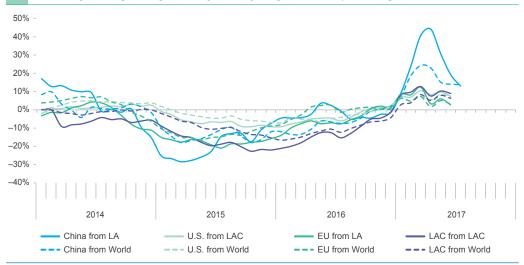
Higher GDP growth translated into increased LAC demand and imports by the main global economies, and stronger intraregional trade flows. The most notable recovery was observed in China's purchases from the region.

Having fallen 2.2% in 2016, Chinese imports from LAC increased 27.7% year-on-year in the first half of 2017, benefiting mostly the exporters of South America. The recovery of U.S. and EU imports in the first half of the year was less dramatic, but still significant: 9.1% and 7.2%, respectively, compared to declines of 2.6% and 4.4%, respectively, in 2016. LAC's intraregional trade grew 10.9% in the most recent period, having contracted

The recovery of global demand sustained regional sales.







Source: IDB Integration and Trade Sector, with data from the U.S. International Trade Commission (USITC), EuroStat, China Customs, IMF, and other national sources.

*Note*: In the cases of China, U.S., and LAC, the imports reported correspond to the aggregate for Latin America and the Caribbean, while for the EU they correspond only to Latin America.

10.4% in 2016 (Figure 6). For all analyzed economies, and more markedly for China, imports from the region increased at higher rates than total imports. However, the gap narrowed gradually and showed signs of a reversal towards the middle of the year, with the exception of intraregional trade. Starting in April, deflationary pressures started to affect the price of LAC's main export products and explained much of the fall in the value of Chinese purchases from the region and, to a lesser extent,

of EU purchases as well.

The region remained isolated from the most dynamic sources of trade growth.

The analysis of global export flows measured at constant prices for the first semester of 2017, provides a more accurate picture of LAC trade performance (Table 1). Asia explained about 60% of real trade growth during this period, but LAC benefited the least from the Asian market expansion. From January to June 2017, the volume of Asian purchases from the world grew 8.1% year-on-year, but those from LAC grew only 4.6%. Overall, the region's real exports increased less (3.0%) than the world average (4.1%). Similar gaps were observed in all destinations, except for North America, due to increased

sales by Mexico. In fact, excluding Mexico, regional exports contracted 1% in real terms. Thus, it becomes evident that the regional recovery was driven by a surge in prices, as LAC remains insulated from the most dynamic sources of real trade growth.

TABLE 1 \* REACTIVATION OF THE VOLUME OF WORLD TRADE

(Year-on-year growth rate, percentage, January-June 2017)

		Importers					
		Africa	LAC	Asia	Europe	North America	Total
Africa		2.4%	-12.8%	5.5%	3.0%	3.5%	3.9%
Exporters	LAC	2.5%	2.0%	4.6%	-2.4%	4.2%	3.0%
	Asia	-1.5%	6.8%	8.4%	5.7%	6.3%	6.8%
	Europe	-1.5%	3.7%	8.2%	1.6%	0.6%	2.2%
	North America	-2.8%	1.0%	9.0%	-0.7%	2.8%	3.0%
	Total	-0.8%	2.8%	8.1%	2.1%	3.9%	4.1%

Source: IDB Integration and Trade Sector, with data from the IMF, EuroStat, U.S. Bureau of Labor Statistics, WTO, and other national sources.

Note: Africa includes the Middle East, North America corresponds to U.S. and Canada only (see Methodological Annex 2).

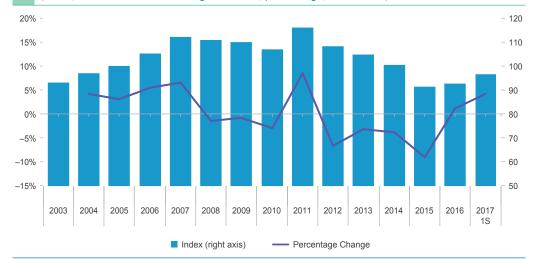
#### **The Easing of External Pressures**

Latin America's terms of trade were affected by fluctuations in world relative prices in 2016 and 2017. In 2016 the ratio of export to import prices increased 1.1% (Figure 7), as the former fell slightly less than the latter (-5.3% and -6.3%, respectively). Preliminary estimates for the first six months of 2017 indicate an additional improvement of 4.3% year-on-year, due to a more robust recovery

Regional terms of trade improved marginally.

FIGURE 7 • TERMS OF TRADE IN LATIN AMERICA

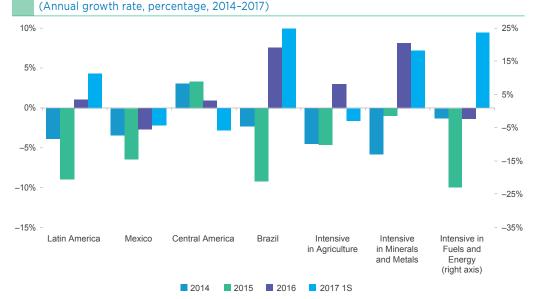
(Index, 2005 = 100 and annual growth rate, percentage, 2003-2017)



Source: IDB Integration and Trade Sector with data from INTrade, Central Bank of Mexico (Banxico), U.S. Bureau of Labor Statistics (BLS) and other national sources.

Note: Countries included are Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay, and Venezuela (see Methodological Annex 3).





Source: IDB Integration and Trade Sector with data from INTrade, Central Bank of Mexico, and Central Bank of Venezuela (BCV). Note: The classification of countries is in footnote 3. Data for the first semester are estimated (see Methodological Annex 3).

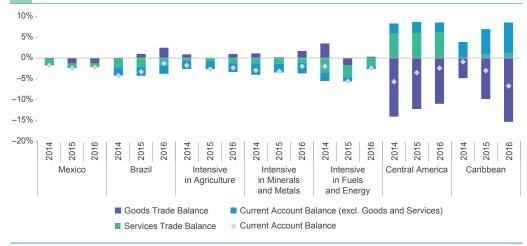
of export prices (9.8%) with respect to import prices (5.3%). The greater relative concentration of regional exports in commodities, whose prices registered substantially larger increases, explains the net result. The improvement in 2016 came after four years of continuous terms of trade deterioration, leaving the index at a level 21.0% below the historical maximum of 2011. Given that the positive movements recorded in the past year have been marginal, the indicator of regional purchasing power remains 16.7% below that ceiling, and at a level comparable to that predating the commodity price boom.

Changes in export prices were heterogeneous. As the composition of export baskets varies across Latin American countries, they experienced different terms of trade adjustments.<sup>3</sup> The terms of trade for the region improved marginally in 2016 due to a decline in countries with exports intensive in fuels and energy (-3.2%) and in Mexico (-2.6%), which was compensated by improvements in the remaining countries, especially in Brazil (7.6%) and in countries with exports intensive in minerals and metals (8.2%) (Figure 8). The

<sup>&</sup>lt;sup>3</sup> In order to disaggregate export performance, in this report Brazil and Mexico are treated separately, and the remaining countries of the region are grouped as follows: Central America (Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Nicaragua, and Panama), countries with exports intensive in agricultural products (Argentina, Paraguay and Uruguay), countries with exports intensive in fuels and energy (Bolivia, Colombia, Ecuador, and Venezuela), and countries with exports intensive in minerals and metals (Chile and Peru).

FIGURE 9 • CURRENT ACCOUNT BALANCE BY GROUPS OF LATIN AMERICAN AND CARIBBEAN COUNTRIES





Source: IDB Integration and Trade Sector with data from the IMF and national sources.

Note: The classification of countries is in footnote 3. The Caribbean includes Bahamas, Barbados, Belize, Guyana, Haiti, Jamaica, Suriname and Trinidad and Tobago. The values for subregions are simple averages of the balances as a percentage of GDP of the countries in the group. This indicates the degree of external soundness regardless of the different economic weights of the countries within each group.

difference came from greater declines in the price of oil, which accounts for a large share of the former group's export basket, compared to that of products exported by the remaining countries. Preliminary data points to even more heterogeneity in the first months of 2017.<sup>4</sup> On the one hand, Brazil's terms of trade continued to improve (12.3%), as did those of countries with exports intensive in minerals and metals (7.2%). Similarly, countries specializing in fuels and energy experienced a terms of trade improvement of the order of 21.9%. On the other hand, Central America and countries with exports intensive in agricultural products registered a terms of trade deterioration due to the recovery in oil prices, which makes their imports more expensive, despite an increase in the price of their exports. Likewise, Mexico's terms of trade continued to deteriorate (-2.2%) as export prices remained stable and import prices increased.

The terms of trade improvement led to positive changes in the current account balances of LAC countries in 2016. Although all country groups continued to register deficits, they were smaller in all subregions except the Caribbean (Figure 9). The greatest improvement was registered by the group of countries

Current account deficits decreased.

<sup>&</sup>lt;sup>4</sup> Data correspond to Argentina, Brazil, Mexico, Chile, Colombia, El Salvador, Peru, and Uruguay.

with exports intensive in fuels and energy, where the deficit was reduced from 5.6% of GDP in 2015 to 2.4% in 2016, due mostly to a reversal in the goods account. The Brazilian deficit also declined 2.0 p.p., from 3.3% of GDP in 2015 to 1.3% in 2016, due to a larger surplus in goods and a smaller deficit in the other accounts. Countries with exports intensive in minerals and metals and Central America registered a reduction of the current account deficit of 1.2 p.p., due to a larger trade surplus in the former and a smaller deficit in the latter. Central America also registered an increase in its services account surplus. Simultaneously, both in Mexico and in the countries with exports intensive in agricultural products, only marginal improvements were observed, of 0.4 p.p. and 0.3 p.p., respectively. The reasons nonetheless differed: a surplus in the goods account of agricultural countries compensated the deficit in services, while in Mexico the improvement came from the income and transfers accounts.

In summary, the value of global trade in goods and services entered a recovery phase in early 2016, which accelerated in 2017. The trend reversal resulted initially from a rebound in prices, which was complemented by a higher growth of trade volumes in the first months of 2017. Developing countries were the main drivers of both the contraction in world trade in 2016, and the expansion in the first half of 2017. However, the boost from these emerging economies has been losing momentum since April. In line with global trade, the value of LAC exports started to recover in 2016 and increased notably in the first half of 2017. The regional recovery, differently from the global one, has been driven primarily by a surge in export prices. This led to improvements in regional terms of trade and current account balances, which were nonetheless insufficient to reverse the losses accumulated over four years of contraction. The next chapter disaggregates the regional performance by countries and groups.

# The Recovery of Regional Exports

The decline in Latin American and Caribbean merchandise exports started to slow down in 2016. Most of the incipient recovery was explained by a surge in the prices of the region's main export products, in addition to small and concentrated increases in export volumes. In early 2017 the region has registered strong export growth, but it seems to be short-lived. Foreign sales of services displayed greater resilience than those of goods by registering solid growth already in 2016.

#### The Brief Rebound in Foreign Sales

In 2016 the value of LAC's merchandise exports contracted 3.3%, reaching a total of US\$875.7 billion. The contraction was deeper in the Caribbean than in Latin America, with declines of 19.5% and 2.9%, respectively. These figures characterize the fourth year of trade contraction, which resulted from persistent declines in prices and weak volume growth. In contrast, in the first months of 2017, the value of regional goods exports recovered notably: between January and June

The value of exports registered an unstable rebound.

the year-on-year growth rate was 13.2% (Figure 10). Nonetheless, the expansion was driven almost exclusively by higher prices, which explains the subsequent deceleration as prices leveled off in April.

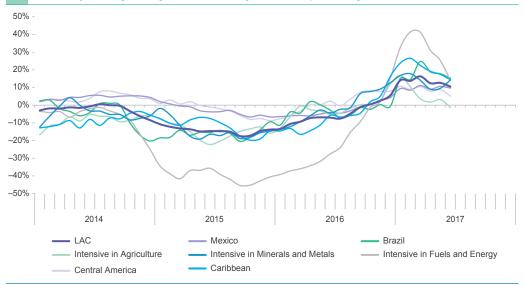
The sharp drop in commodity prices that started in 2014 became more moderate in 2016, and reversed late in that year. The average price index fell 10.0% in 2016, but only 1.8% when oil prices are excluded (Figure 11). Starting in the last quarter of

The price surge started to level off.

2016, the price recovery accelerated and, in the first six months of 2017, a year-on-year growth rate of 20.8% was observed (10.1% excluding oil). The greatest year-on-year increases, around 42%, were registered in January and February as the base of comparison are the same months in 2016, when prices

#### FIGURE 10 • LATIN AMERICA AND THE CARIBBEAN TRADE IN GOODS TREND

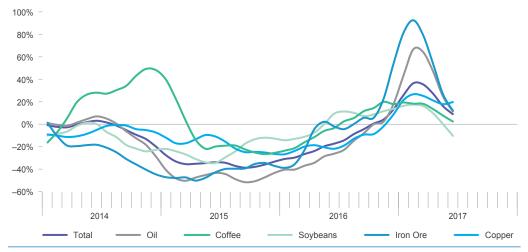
(Quarterly moving average of the annual growth rate, percentage, 2014-2017)



Source: IDB Integration and Trade Sector with data from INTrade and official sources.

Note: The classification of countries is in footnote 3. The Caribbean includes Bahamas, Barbados, Belize, Guyana, Haiti,
Jamaica, and Suriname.

## FIGURE 11 • PRICES OF MAIN EXPORT PRODUCTS OF LATIN AMERICA AND THE CARIBBEAN (Quarterly moving average of the annual growth rate, percentage, 2014–2017)



Source: IDB Integration and Trade Sector with data from the IMF.

Note: The total corresponds to the weighted average of the price commodity prices included in the IMF estimation.

were at their lowest level. Subsequently, price increases subdued, falling to barely 1% in June. At that point, the average price index was still 39% below the maximum reached before the collapse in 2014.

The price increases observed between November 2016 and the first quarter of 2017 were partially due to exogenous factors. Among these stand out the acceleration of economic activity in several advanced and emerging countries, the stimulus plans in China, optimistic expectations related to potential infrastructure investments in the U.S., and oil supply restrictions implemented by the Organization of Petroleum Exporting Countries (OPEC).

Key drivers of commodity prices reversed direction.

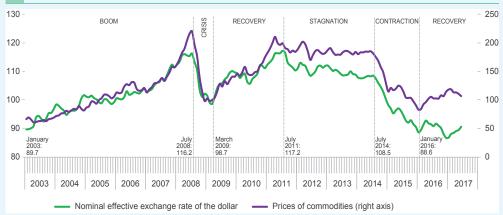
However, some of these factors were overturned by the end of the first quarter of 2017: Chinese authorities adjusted their monetary policy and the Federal Reserve raised U.S. interest rates, while fiscal stimulus had not yet materialized. Additionally, changes in commodity prices became increasingly dissociated from variations in the dollar (Box 2).

#### **BOX 2: COMMODITY PRICES AND FLUCTUATIONS IN THE U.S. DOLLAR**

Historically, commodity prices have followed the behavior of the U.S. dollar. That is, an appreciation (depreciation) of the dollar used to lead to a reduction (increase) in commodity prices.<sup>a</sup> However, starting in early 2015, and most clearly since the second quarter of 2016, this correlation appears to have been broken. While the dollar appreciated 6.5% between April and December of 2016, commodity prices increased 18.6% in the same period. Later, between January and June of 2017, the dollar depreciated 4.4%, while commodity prices contracted 9.6%.

Factors specific to commodity markets affected their prices, and began to drown out the effects of fluctuations in the value of the dollar. In the first analyzed period, growth expectations in the U.S. simultaneously strengthened the dollar and the demand for commodities. This trend





Source: IDB Integration and Trade Sector with data from the U.S. Federal Reserve and the IMF. Note: Exchange rate with respect to a broad basket of currencies. A negative/positive slope indicates an appreciation/depreciation of the dollar.

(continued on next page)

#### BOX 2: COMMODITY PRICES AND FLUCTUATIONS IN THE U.S. DOLLAR (continued)

was reinforced by supply factors in several markets, especially the restrictions in oil production agreed by the OPEC. In the second period, the trend was reversed as the restrictions imposed by the OPEC were expected to have only a moderate impact, and harvests were bountiful. At the same time, in the U.S., inflation below expectations and the delay in implementing fiscal stimulus measures debilitated the dollar. This depreciating dollar trend was reinforced by stronger economic growth in the euro zone, and the subsequent expectations of normalization of monetary policy with the end of the quantitative easing program.

This outlook, in addition to increasing uncertainty regarding the growth dynamics of the Chinese economy, raises the probability of a continuation of the downward trends in commodity markets during the next few quarters, eliminating a key expansive factor in the growth of regional export value.

<sup>a</sup> Previous editions of the Trade and Integration Monitor document the persistence, relevance, and implications of the correlation. The inverse association of the two variables is due to multiple factors, both economic and financial. In particular, commodity prices are denominated in dollars and, thus, all else equal, appreciations in the "numeraire" imply that the prices of goods equal a lower quantity of dollars, reducing their prices in that currency. Giordano (2016) analyzes the evolution of commodity prices net of the numeraire effect associated with fluctuations in the dollar.

Extractive products experienced greater price volatility.

As a direct consequence of the OPEC restrictions, oil prices strongly recovered in the first two months of 2017, reaching year-on-year growth rates of 80% between January and February. In the following months, prices increased at rates that were not only lower but turned negative in June. Factors such as production expansions in Libya and Nigeria (countries excluded from the OPEC production cuts) and an increase in non-conventional extraction in the U.S. negatively impacted

the price of crude oil. On average, the price of oil registered a positive year-on-year growth rate of 32.3% in the first half of 2017. Yet, in June it remained 57% below the previous maximum of June 2014. The price of **iron ore** increased 42.1% year-on-year between January and June 2017, is spite of a notable deceleration starting in March. Uncertainty regarding a potential Chinese stimulus and a related increase in supply explained most of the recent contraction in price, which in June was still 38% below the relative maximum of 2014. Finally, **copper** prices were up 22.3% year-on-year in the first half of 2017. This was the only leading regional export product whose price continued to increase strongly throughout the first half of the year, as a consequence of production interruptions at the world's second largest mine in Indonesia.

Excess supply affected the price of agricultural goods. **Coffee** prices increased 9.9% in the first half of 2017 compared to the first semester of 2016. However, the year-on-year growth rate fell markedly during the last months of the analyzed period, and turned negative in June as a result of improved weather forecasts in the

main coffee producers. Among the leading export products, soybeans registered the smallest price increase. In the first half of 2017, it rose only 1.4% on average, with positive rates in the first quarter and negative rates in the second, as bountiful harvests were predicted in South America.

Agricultural prices began to fall.

Fluctuations in commodity prices largely drove the region's export performance. While prices contracted 5.3% in 2016 and expanded 9.8% year-on-year in the first half of 2017, volumes expanded 2.5% and 3.0% in the same periods,

Export volumes accelerated only slightly.

respectively (Figure 12). On the one hand, the modest growth in export volumes was due mainly to the exceptional increase in Mexico in the first half of 2017: 10.2%, compared to 1.8% in 2016. In Brazil, export volumes increased a stable 1.7% in both 2016 and 2017, but in Central America the rate declined slightly from 4.9% to 4.6%. On the other hand, the year-on-year change for

the other South American country groups was either null or negative in the first part of the year: 0.2% for exporters of metals and minerals, -2.3% for agricultural exporters, and -7.7% for those specialized in fuels and energy. The lower rates for Brazil and the other South American groups reflect the volatile growth pattern followed by real exports in the post-crisis, whereas those for Mesoamerica have displayed greater stability.

In summary, after four consecutive years of contraction, the recovery that begun in 2016 took hold and LAC exports returned to a growth path in the first half of 2017. The expansion, however, did not extend to all regional economies and continues to be based primarily on a substantial increase in prices that appears to be short-lived, and on a marginal and geographically-concentrated growth of volumes.

#### **Export Performance by Country and Subregion**

The decline of 3.3% in the value of LAC merchandise exports in 2016 was the result of contractions in all subregions, although of lesser magnitude than in 2015. The sharpest drop was registered in the Caribbean (-19.5%), followed by South America<sup>5</sup>

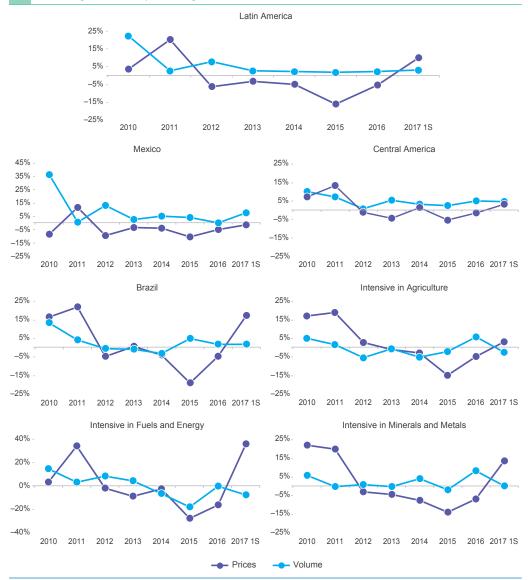
The decline in exports began to ease in 2016.

(-4.6%) and Mesoamerica (-1.2%), the latter due to a combination of 3.1% growth in Central America and a decline of 1.7% in Mexico. With respect to individual countries, seven recorded positive growth rates: Guyana (25.3%), the Dominican Republic (17.6%), Costa Rica (7.8%), Peru (7.6%), Barbados (5.0%), Paraguay (2.1%), and Argentina (1.7%). All other countries saw exports decline, especially those reliant on fuels and energy.

<sup>&</sup>lt;sup>5</sup> South America includes all the subcontinent countries, except for Guyana and Suriname, classified as the Caribbean.

#### FIGURE 12 • LATIN AMERICAN EXPORT PRICES AND VOLUMES

(Annual growth rate, percentage, 2010-2017)



Source: IDB Integration and Trade Sector with data from INTrade, BLS, BCV, and OPEC.

*Note*: The base year for the corresponding indices is 2005. The country classification is in footnote 3. Methodological Annex 3 details the estimation procedures for the series at constant prices.

In fact, the countries with contractions greater than 10% were Trinidad and Tobago (-29.2%), Belize (-24.2%), Venezuela (-24.1%), Bolivia (-18.8%), Colombia (-12.7%), and Suriname (-12.6%). On a positive note, with the exception of Belize, El Salvador, Honduras, Guatemala, and Trinidad and Tobago, all countries improved their performance compared to the previous year (Table 2).

TABLE 2 • GOODS EXPORTS OF LATIN AMERICA AND THE CARIBBEAN

(Annual growth rate and billions of US\$, selected periods)

	US\$ Billions		Growth Rates (%)				
	2014	2015	2016	2014	2015	2016	Accum. June 2017
LATIN AMERICA AND THE CARIBBEAN	1063.0	905.2	875.7	-2.9	-14.8	-3.3	13.2
LATIN AMERICA	1041.3	888.1	862.0	-2.5	-14.7	-2.9	13.1
MESOAMERICA	446.3	428.1	423.0	4.4	-4.1	-1.2	10.1
Mexico	396.9	380.5	373.9	4.4	-4.1	-1.7	10.4
Central America	49.4	47.6	49.1	4.3	-3.7	3.1	7.7
Costa Rica	9.1	9.2	9.9	6.0	0.7	7.8	6.6
El Salvador	5.3	5.5	5.3	-4.0	4.0	-2.7	4.2
Guatemala	10.8	10.7	10.4	7.8	-1.2	-2.1	7.2
Honduras	8.1	8.1	7.9	3.4	0.4	-2.4	11.1
Nicaragua	5.4	5.1	5.0	4.4	-6.8	-1.6	14.0
Panama	0.8	0.7	0.6	-3.2	-14.9	-8.5	3.2
Dominican Republic	9.9	8.4	9.9	5.0	-15.3	17.6	6.0
SOUTH AMERICA	594.9	459.9	439.0	-7.1	-22.7	-4.6	16.1
Argentina	68.4	56.8	57.7	-9.9	-17.0	1.7	0.7
Bolivia	12.9	8.7	7.1	5.2	-32.2	-18.8	7.0
Brazil	225.1	191.1	185.2	-7.0	-15.1	-3.1	19.3
Chile	74.9	62.2	60.6	-1.9	-17.0	-2.6	6.4
Colombia	54.9	36.0	31.4	-6.7	-34.4	-12.7	20.4
Ecuador	25.7	18.3	16.8	3.6	-28.8	-8.4	18.9
Paraguay	9.6	8.3	8.5	1.9	-13.6	2.1	-5.7
Peru	39.5	34.4	37.0	-7.8	-12.9	7.6	28.2
Uruguay	9.1	7.7	7.0	0.7	-15.9	-8.9	10.2
Venezuela	74.7	36.4	27.6	-15.8	-51.3	-24.1	41.5
CARIBBEAN	21.7	17.1	13.7	-18.2	-21.4	-19.5	17.9
Bahamas	0.7	0.5	0.5	-15.1	-24.5	-8.5	39.2
Barbados	0.5	0.5	0.5	3.7	2.5	5.0	-2.2
Belize	0.3	0.3	0.2	-8.1	-12.8	-24.2	19.2
Guyana	1.2	1.1	1.4	-15.2	-1.8	25.3	1.3
Haiti	1.0	1.0	1.0	6.9	3.5	-6.3	2.6
Jamaica	1.4	1.2	1.1	-8.3	-17.1	-9.2	13.7
Suriname	2.1	1.7	1.4	-11.2	-23.0	-12.6	45.6
Trinidad and Tobago	14.5	10.8	7.6	-22.3	-25.7	-29.2	n.a.

Source: IDB Integration and Trade Sector with data from INTrade and national sources.

Note: n.a.: data not available. Methodological Annex 4 details the geographical and temporal coverage of goods exports.

In the first half of 2017 the contraction was reversed, and the value of LAC exports grew 13.2%. This growth was due mainly to the previously discussed surge in prices of those commodities that constitute the main exports of some countries, particularly oil and minerals. The largest recoveries were observed in Suriname (45.6%), Venezuela (41.5%), Bahamas

The exports of most countries grew in 2017.

(39.2%), Peru (28.2%), Colombia (20.4%), Brazil (19.3%), Belize (19.2%), Ecuador (18.9%), Nicaragua (14.0%), Jamaica (13.7%), Honduras (11.1%), Mexico (10.4%), and Uruguay (10.2%). The remaining countries posted growth rates below 10%, except for Barbados and Paraguay, whose exports fell 2.2% and 5.7%, respectively.

#### **Export Dynamics by Product and Partner**

In general, the contraction observed in 2016 was determined by lower revenues from exports of fuels and energy, due to declining oil prices.<sup>6</sup> The Fuels and Energy (F&E) category contributed 2.4 p.p. to the 2.9% drop in LA exports, while that of Industrial Manufactures (IM) contributed another 0.5 p.p. Lower exports of Primary Products (PP) subtracted 0.1 p.p. from overall growth, and counteracted an increase of the same magnitude in the sales of Primary Manufactures (PM) (Figure 13).

Oil prices determined a large part of the contraction.

The F&E category explained nearly all the fall in exports of 16.6% for economies with exports intensive in these products, and half of the 1.7% drop in Mexican foreign sales. In Brazil, it was the second most important contributor to the 3.1% decline in total exports, subtracting 1.3 p.p. The PP category deducted another 3.5 p.p. from the growth of Brazilian exports, mostly due to the poor performance of mineral products, while IM (1.5 p.p.) and, to a lesser extent, PM (0.3 p.p.) partially compensated these falls. The change in PP exports was also negative in countries with exports intensive in minerals and metals, but the impact of this category (-1.1 p.p.) was more than compensated by increases in PM and IM, which contributed 1.8

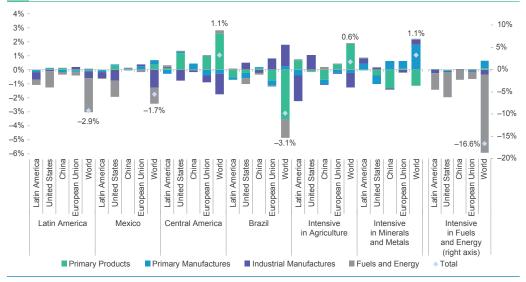
Commodity prices fell in most countries.

p.p. and 0.4 p.p., respectively, to the 1.1% growth of exports. In contrast, in Central America, PP spurred the growth of exports in 2.6 p.p., while PM and IM reduced it by 1.5 p.p. and 0.3 p.p., respectively, leading to a modest overall increase of 1.1%. Likewise, countries with exports intensive in agricultural

<sup>&</sup>lt;sup>6</sup> The analysis is based on the following categories: PP: Primary Products, which includes AP (Agricultural Primary Products) and MP (Mineral Primary Products); PM: Primary Manufactures, which includes AM (Agricultural Manufactures) and MM (Mineral Manufactures); IM: Industrial Manufactures; and F&E (Fuels and Energy).

## FIGURE 13 • CONTRIBUTION TO LATIN AMERICAN EXPORT GROWTH BY SELECTED PRODUCTS AND PARTNERS





Source: IDB Integration and Trade Sector with data from INTrade and national sources.

Note: Methodological Annex 5 details the classification by categories. Growth rates are decomposed according to the contribution of partners and products to the total change in exports in 2016. The data for Central America includes Costa Rica, Guatemala, El Salvador, and Panama only; for this reason, the numbers reported in Table 2 and in Figure 13 do not coincide for the subregion. The Caribbean is not included since disaggregated data are not available. The Figure does not include all partners and, therefore, the sum of contributions does not add to 100%.

goods saw sales rise 0.6% based on a positive contribution of PP (1.8 p.p.), partially counteracted by reductions in IM (-1.1 p.p.) and PM (-0.2 p.p.).

In terms of export destinations, the 2.9% fall in exports from Latin America in 2016 was explained mainly by reductions in sales to the U.S. and within the region, with each accounting for 1.1 p.p. of the decline. China and the EU deducted an additional 0.2 p.p. each. The fall in the value of exports to the northern partner was explained almost completely by the negative contribution of F&E (-1.1 p.p.), while the reduction in

The United
States and the
intraregional
market
explained
most of the
contraction.

intraregional trade was derived from both F&E and IM (-0.4 p.p. and -0.5 p.p., respectively). In Mexico, exports of F&E and IM to the U.S. explained the drop in foreign sales of 1.7% (-1.2 p.p. and -0.8 p.p., respectively), which was intensified by declines in all categories to the intraregional market. The fall in Brazilian PP exports was replicated in all destinations, except China, where they were stagnant. In contrast, Brazilian IM exports increased, especially to the EU and the U.S. Sales to the U.S. also contributed positively to the growth of Central American exports and of countries intensive

in agricultural products. Surprisingly, in the former case it was PP what drove the growth, while in the latter it was IM. Intraregional exports only favored exporters of minerals and metals, whose contraction of PP exports reflected lower sales to China and the U.S. Lastly, foreign sales of countries with exports intensive in fuels and energy decreased to all destinations, held down by contractions in the F&E category.

#### The Resilience of Services Exports

In 2016 regional services exports grew 1.9%, having fallen 2.1% in 2015, and reached a total of US\$144.9 billion. This recovery, although small, illustrates the greater resilience of regional trade in services than of trade in goods, which continued to fall in 2016. The aggregate LAC performance was the result, however, of very different subregional dynamics: in Mesoamerica services exports

Services exports returned to growth.

grew 6.7% in 2016, a slight deceleration from the 7.4% rate registered in 2015. In contrast, South American foreign sales of services continued on a downward trajectory (-1.3%), although less steep than in the previous year (-8.4%). Finally, in the Caribbean there was evidence of relative stagnation. Preliminary estimates for the first quarter of 2017 suggest that growth is accelerating across the region, with a year-on-year rate of 9.7% (Table 3).

Mesoamerica accounted for 41% of LAC services exports in 2016, with countries displaying relatively homogeneous performance. With the exception of Guatemala,

Mesoamerica increased services exports.

exports from all countries increased. Mexico, responsible for 17% of LAC services exports and the main exporter of the subregion, registered a 7.1% increase. Nicaragua, Costa Rica, and the Dominican Republic posted even higher growth rates, of 18.8%, 13.0%, and 10.0%, respectively. In the latter two, the solid performance was particularly important considering that services constitute around half of their foreign sales. Honduras

and Panama experienced lower growth, with rates of 5.3% and 2.6%, respectively, while sales from El Salvador stagnated. For the first quarter of 2017, the estimated year-on-year growth rate is around 7.9%, mainly driven by services exports from Mexico.

In contrast to Mesoamerica, South America registered an additional contraction in services exports. The subregion, responsible for 52% of overall LAC services exports, saw foreign sales fall 1.3% in 2016. Despite this negative figure, the region performed better in 2016 than in 2015,

when services exports contracted 8.4%. Brazil had a strong influence on the subregional performance, as the fall in exports went from 15.4% in 2015 to a much lower rate of 1.3% in 2016. Services exports from Colombia, Peru, and Paraguay

In South America services exports continued to fall.

TABLE 3 • SERVICES EXPORTS OF LATIN AMERICA AND THE CARIBBEAN

(Annual growth rate and billions of US\$, selected periods)

	I	US\$ Billions		Gre	Growth Rates (%)		
	2014	2015	2016	2015	2016	1Q 2017	
LATIN AMERICA AND THE CARIBBEAN	145.2	142.1	144.9	-2.1	1.9	9.7	
LATIN AMERICA	135.4	132.2	134.9	-2.3	2.1	9.9	
MESOAMERICA	51.7	55.5	59.2	7.4	6.7	7.9	
Mexico	21.0	22.7	24.3	8.1	7.1	9.2	
Central America	30.6	32.8	34.9	7.0	6.4	6.9	
Costa Rica	6.6	7.4	8.4	12.1	13.0	4.3	
El Salvador	1.7	1.7	1.7	-1.2	0.1	0.4	
Guatemala	2.7	2.7	2.6	1.0	-3.7	-0.4	
Honduras	1.0	1.1	1.1	1.5	5.3	n.a.	
Nicaragua	0.7	0.8	0.9	13.9	18.8	9.1	
Panama	11.3	12.0	12.3	6.2	2.6	10.0	
Dominican Republic	6.7	7.2	7.9	7.8	10.0	8.7	
SOUTH AMERICA	83.7	76.7	75.7	-8.4	-1.3	11.7	
Argentina	13.1	12.9	12.5	-1.3	-3.3	10.8	
Bolivia	1.1	1.1	1.1	3.1	-0.9	4.4	
Brazil	38.4	32.5	32.0	-15.4	-1.3	11.0	
Chile	10.3	9.3	9.1	-9.7	-1.3	15.4	
Colombia	7.0	7.3	7.9	3.7	7.7	6.6	
Ecuador	2.2	2.3	2.0	1.4	-11.1	-1.0	
Paraguay	0.7	0.7	0.7	-5.2	0.7	n.a.	
Peru	5.8	6.1	6.2	5.1	1.2	n.a.	
Uruguay	3.3	3.1	3.0	-6.8	-2.9	28.9	
Venezuela	1.8	1.5	1.2	-15.8	-19.0	n.a.	
CARIBBEAN	9.8	9.9	9.9	0.7	0.4	3.7	
Bahamas	2.7	2.9	2.9	6.4	1.5	n.a.	
Barbados a/	1.3	1.4	1.5	4.5	6.4	n.a.	
Belize	0.5	0.5	0.5	0.7	8.2	n.a.	
Guyana	0.2	0.1	n.a.	-21.0	n.a.	n.a.	
Haiti	0.6	0.7	0.6	6.6	-17.2	n.a.	
Jamaica	2.9	3.0	3.2	3.6	5.3	3.9	
Suriname	0.2	0.2	0.2	-10.5	-4.2	-2.0	
Trinidad and Tobago	1.4	1.1	1.0	-18.2	-14.7	n.a.	

Source: IDB Integration and Trade Sector with data from the IMF and the WTO.

Note: n.a.: data not available. a/ WTO data. The definition of services exports excludes construction, manufacturing, maintenance, and government services (see Methodological Annex 4).

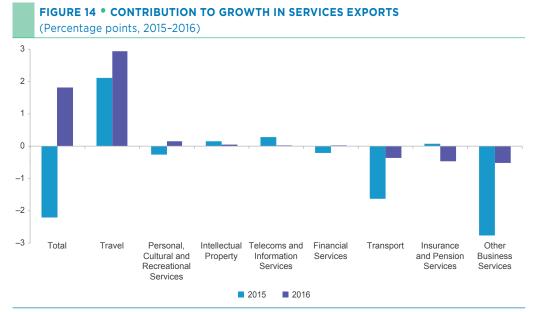
grew in 2016, at rates of 7.7%, 1.2%, and 0.7%, respectively, while exports from the remaining countries in the subregion continued to contract. The sharpest declines were observed in Venezuela (-19.0%) and Ecuador (-11.1%). Preliminary data for the first three months of 2017 indicate that services exports grew 11.7% year-on-year, pointing to a strong trend reversal.

In the Caribbean services exports were stagnant.

In the Caribbean, foreign sales of services grew 0.4%, a rate similar to that of 2015 (0.7%). The relative stagnation was a consequence of growth in Belize (8.2%), Barbados (6.4%), Jamaica (5.3%) and Bahamas (1.5%), counterbalancing contractions in Haiti (-17.2%), Trinidad and Tobago (-14.7%) and Suriname (-4.2%). Except for Bahamas and Haiti, all countries of the subregion showed improvements in 2016 compared to the previous year.

The recovery in LAC services exports in 2016 was explained mainly by growth in the Travel category, and by smaller contractions in services related to international

Travel drove the growth in services exports. trade in goods. In 2015, sharp reductions in Transport and Other Business Services (-1.6 p.p. and -2.8 p.p., respectively) had counteracted a positive 2.1 p.p. contribution from Travel. In 2016, in turn, the negative impact of these two sectors was smaller (-0.4 p.p. and -0.5 p.p., respectively), while the positive contribution of Travel increased (2.9 p.p.) (Figure 14).



Source: IDB Integration and Trade Sector with data from the IMF.

In conclusion, exports from Latin America and the Caribbean reversed trends between 2016 and early 2017. Foreign sales of goods moderated their decline throughout last year and expanded strongly in the first months of 2017, while services exports had already recovered in 2016 and continued on an upward trajectory. The evolution of goods flows fundamentally responded to significant increases in the prices of the region's main export products, while export volumes grew only moderately. Nonetheless, the cyclical nature of the factors that drove the rebound in prices highlights the fragility of the recovery. In this context, it is worth analyzing in more detail the determinants of regional export performance in order to evaluate the extent to which endogenous factors, such as competitiveness, and exogenous variables, such as the fragile recovery of the global economy and the erratic behavior of prices, explain the region's export performance in recent years. This is covered in the next chapter.

## The Competitiveness Gap

A medium-term analysis of regional trade indicates that, in the post-crisis, LAC's exports increased at a slower pace than world trade. As a consequence, the region lost market share in the global trading system. Moreover, the decomposition of export performance reveals the dominant effect of low competitiveness. In a context in which global trade grows at lower rates, and the demand for commodities, which had sustained regional export performance for more than a decade, stabilizes, it is crucial that countries foster the capacity of the export sector with competitiveness-enhancing policies.

To complement the short-term analysis carried out in the previous chapters, this chapter offers a medium-term evaluation of Latin American and Caribbean export performance. The analysis is based on two methodological approaches that provide a new perspective on the region's capacity to compete in global markets.<sup>7</sup> First, the rate of export growth is decomposed into its main determinants, with the aim of separating those resulting from global demand dynamics from those related to the competitiveness of the region's export supply, over which public policy can have an influence. Second, changes in the market share controlled by the region are attributed to specific products, partners, and competitors.<sup>8</sup> The analysis reveals the marked duality between Mexico and the rest of Latin America, contextualizes the diverse trade strategies followed by different groups of countries, and underscores the need to sustain the international competitiveness of the region's export sector.<sup>9</sup>

<sup>&</sup>lt;sup>7</sup> This chapter examines export growth on the intensive margin, valued at current prices. Thus, it complements the analyses carried out in previous editions of the Trade and Integration Monitor. Specifically, in Giordano (2015) the intensive and extensive margins of export growth are analyzed in order to understand the limits of regional export diversification patterns. In Giordano (2016) the competitive positioning of exports at constant prices is analyzed to highlight the illusion of real export growth generated by the increase in commodity prices.

<sup>&</sup>lt;sup>8</sup> Methodological Annex 6 describes the method employed to decompose the changes in export growth, as well as the databases used.

<sup>&</sup>lt;sup>9</sup> While the analysis of trade competitiveness is new for the region, it does not represent an exhaustive discussion on the determinants of productivity and competitiveness. These comprise a set of phenomena not exclusively related to the ability to compete in world markets. For a more extensive treatment of the topic, see, for example, Pages (2010) and Crespi et al. (2014).

#### The Determinants of Export Performance

The region lost market share in global trade.

Between 2010 and 2015 the growth of LAC's exports was lower than that of world trade. The region's foreign sales expanded 2.5%, while the corresponding increase for global trade was 4.1%, equivalent to average annual growth rates of 0.5% and 0.8%, respectively. As a consequence, LAC's share of global trade fell from 6.16% in 2010 to 6.07% in 2015. The

change in market share is an indicator resulting from factors related to the dynamics of foreign demand and the competitiveness of export supply. These factors must be analyzed separately in order to assess the magnitude and direction of their impacts.

A method known as "shift-share" is employed to decompose the growth rate of exports. Through this method, four effects are identified: three of them—global, product and partner—constitute the compositional effects, which respond to the structure and dynamics of external demand, and the last one—competitiveness—measures the performance of the analyzed economy's export supply vis-à-vis the rest of the world.<sup>10</sup> Among the composition effects, the

The erosion of competitiveness added to the decline in export prices.

global effect reflects the impact of variations in global trade flows. The product and partner effects indicate, respectively, changes in the export growth rate attributable to the sectoral composition and the geographical distribution of the export basket. All residual variation is attributed to changes in competitiveness. If, for an economy, the composition and competitiveness effects deviate from the global average, the outcome is a change in the economy's global market share.<sup>11</sup>

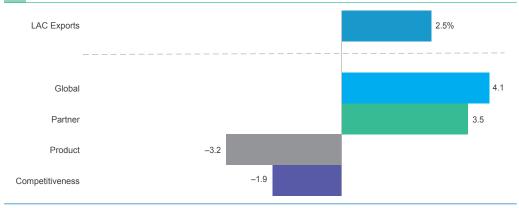
The decomposition of the growth differential of 1.6 p.p. between LAC exports and global trade in the 2010–2015 period reveals a negative incidence of the competitiveness effect (-1.9 p.p.). This was not compensated by the net positive contribution of the partner and product effects (0.3 p.p.) (Figure 15). The positive partner effect (3.5 p.p.) indicates that the geographical composition of the region's

The "shift-share" method has been extensively employed in the trade literature due to its simplicity. The most recent contributions have focused on overcoming its main methodological limitation, rooted in the sensitivity of its results to the sequence in which the product and partner effects are calculated. Methods utilized to this end include the application of econometric techniques described in Cheptea et al. (2005) and Gualier (2013). The version used in this report is based on a statistical method similar to that of Piezas-Jerbi and Nee (2009). Given that the focus is on the competitiveness effect, findings are not affected by the order of calculation of the product and partner effects.

<sup>&</sup>lt;sup>11</sup> Although repetition is omitted to simplify the exposition, variations in the composition and competitiveness effects should be interpreted as deviations from the global average.

## FIGURE 15 • DECOMPOSITION OF THE CHANGE IN EXPORTS OF LATIN AMERICA AND THE CARIBBEAN

(Growth rate, percentage and percentage points, 2010-2015)



Source: IDB Integration and Trade Sector with data from the International Trade Database at the Product-Level (BACI) of the Center for Forecasting Studies and International Information (CEPII).

exports was beneficial. This means that the region's trading partners increased their imports at a faster rate than the rest of the world. The negative product effect (-3.2 p.p.) indicates that the sectoral composition of the region's export basket had a depressing impact on growth. This suggests that the value of the region's main export products grew more slowly than the value of world trade. The net positive effect of partner and product composition implies that, had the region maintained its competitiveness constant, LAC's global market share would have grown slightly instead of falling. This result is nevertheless strongly dependent on Mexico's performance (Box 3).

Competitiveness had been on a downward trajectory over the last decade, and, in the last five years, its contribution to LAC's export performance turned negative. In addition, the composition effects also underwent substantial transformation during the analyzed period. Considering 5-year intervals between 2000 and 2015, the competitiveness effect, initially positive, fell continually and turned negative (-1.9)

p.p.) in the last period. The product effect that strongly drove exports during the first two intervals, adding 7.0 p.p. and 12.7 p.p., also turned negative in the final 5-year period (-3.2 p.p.), consistent with the commodity price cycle. These trends contrast with the evolution of the partner effect, which turned positive in the last period and became the only driver of growth (3.5 p.p.) (Figure 16). In the current context of low external demand, reflected in the declining global effect, the competitiveness effect has become increasingly relevant: in

The competitiveness effect was negative for the first time in 15 years.

#### **BOX 3: THE COMPETITIVENESS EFFECT AND CHANGES IN GLOBAL MARKET SHARE**

The change in global market share is frequently used to evaluate an economy's trade competitiveness, an indicator of the capacity of exporters to compete for markets. Given the relatively small size of the region, and the heterogeneous performance of its economies, these changes are more easily interpreted when expressed in terms of lost export revenue. Moreover, it is important to understand which countries have been driving the observed variations.

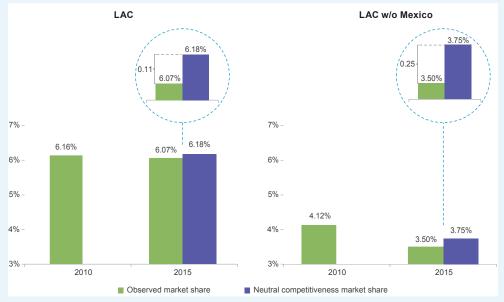
In the period 2010-2015, LAC's share in global trade fell from 6.16% to 6.07%. While the change of 9 basis points (b.p.) may seem insignificant, it represents a loss of US\$14.3 billion for the region. The value also corresponds to 1.6% of total regional exports in 2015, and is equivalent, for instance, to 25% of all exports from Argentina.

Additionally, as will be discussed in this chapter, Mexico's performance was a crucial factor in sustaining the region's export dynamics. The country's relevance rests on the fact that its exports account for 40% of LAC's foreign sales, and the positive evolution of its competitiveness was markedly different from the negative one observed in South American exports. In fact, if Mexico were excluded, the region's global market share would have fallen from 4.12% in 2010 to 3.50% in 2015, a 14.8% decline in only five years.

Acknowledging that the sectoral and geographical composition of an economy's export basket influences the variation in market share, the focus of this chapter is on a measure of trade competitiveness net of these composition effects. The figure in this box thus simulates how the region's market share would have evolved if its competitiveness had remained on par with that

#### **GLOBAL MARKET SHARE OF LATIN AMERICAN AND CARIBBBEAN EXPORTS**

(Percentage and percentage points, 2010-2015) LAC



Source: IDB Integration and Trade Sector with data from BACI (CEPII).

(continued to next page)

## BOX 3: THE COMPETITIVENESS EFFECT AND CHANGES IN GLOBAL MARKET SHARE (continued)

of the rest of the world, that is, if the competitiveness effect had remained neutral. It is further assumed that the sectoral composition and geographical distribution of the export basket remained constant at 2010 levels.

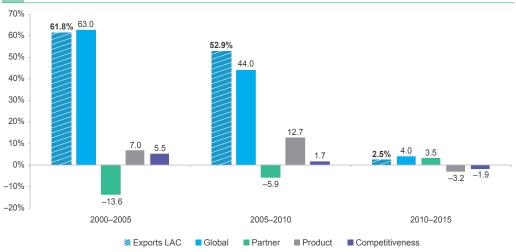
Under these assumptions, LAC's market share in 2015 would have marginally increased to 6.18%, instead of falling. This increase of 11 b.p. with respect to the observed market share would have resulted from a positive partner effect, which would have compensated a negative product effect. In other words, had the region not experienced an erosion in competitiveness, the value of exports would have been US\$17 billion higher, even in a context of falling commodity prices. Excluding Mexico, the region would have still lost market share, but at a lower rate. In this scenario, the market share would have been 3.75% in 2015, that is, 25 b.p. above the one actually registered that year, but still 37 b.p. below the one observed in 2010. This reflects the negative impact of product and partner effects on the export performance of South American countries.

the first period, it accounted for less than 10% of total export growth, whereas in the last one it explained over 75%.

Even though some of these trends are common to all LAC economies, an analysis disaggregated by country size and export specialization reveals relevant divergences. Specifically, between 2010 and 2015, the average rate of export growth (2.5%) was

FIGURE 16 • DYNAMICS OF THE EXPORT GROWTH DETERMINANTS FOR LATIN AMERICA AND THE CARIBBEAN

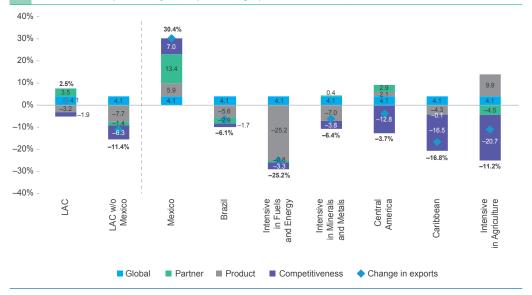
(Growth rates, percentage and percentage points, 2000-2015)



Source: IDB Integration and Trade Sector with data from BACI (CEPII).

## FIGURE 17 • DETERMINANTS OF EXPORT GROWTH OF LATIN AMERICA AND THE CARIBBEAN BY COUNTRY GROUP





Source: IDB Integration and Trade Sector with data from BACI (CEPII).

*Note:* The classification of countries is in footnote 3. The Caribbean includes Bahamas, Barbados, Belize, Guyana, Haiti, Jamaica and Suriname. The group of countries intensive in fuels and energy includes Trinidad and Tobago.

driven by the exceptional performance of Mexico, whose exports increased 30.4% and more than compensated the contraction observed in the rest of the region (-11.4%) (Figure 17). Even more significant was the distinct incidence of the various determinants, 12 particularly the diametrically opposed profiles of Mexico and Brazil in terms of adaptation to global demand. In the other countries and groups, the product effect was positive only in those with exports intensive in agricultural goods and in Central America, whereas the partner effect was also positive in the latter.

Marked asymmetries in export performance emerged in the post-crisis.

The only LAC economy that gained competitiveness between 2010 and 2015 was Mexico, where the effect added 7.0 p.p. to export growth. In countries with exports intensive in agricultural products, the Caribbean, and Central America, the effect was larger but negative, with contributions of -20.7 p.p., -16.5 p.p. and -12.8 p.p., respectively. In Brazil, in countries with exports intensive in minerals and metals, and in those intensive in fuels and energy, variations in competitiveness also had a negative

The global effect is not considered in the analysis since, by definition, it is equal for all subregions. Moreover, in the most recent period, it was fairly small given the low rate of growth of global trade.

impact, albeit of lesser magnitude, as the main determinants of the export contraction were the composition effects.

In summary, during the post-crisis trade relapse, the growth rate of regional exports was positive, but lower than that of global trade. This resulted in a loss of market share for LAC. Furthermore, the decomposition of regional export performance reveals that, with the exception of Mexico, the growth differential between LAC and the world has been determined not only by the region's export specialization, but also by its declining capacity to compete in foreign

The superior competitiveness of Mexico did not compensate the loss in the rest of the region.

markets. This finding shifts the focus of policies from addressing the supposedly penalizing impact of commodities specialization to fostering the ability of all productive sectors to compete in international markets.

#### **Export Competitiveness by Product and Partner**

The analysis by product<sup>13</sup> reveals that LAC's competitiveness declined in all categories. The only exception was that of agricultural primary products, which contributed 1.1 p.p. to regional export growth in 2015 (Figure 18). The largest loss of competitiveness was in industrial manufactures (-1.3

Only agricultural commodities gained competitiveness.

p.p.), which becomes particularly stark once Mexico is excluded from the regional aggregate (-4.8 p.p.). Competitiveness also declined in sectors of greater value added: agricultural and mineral manufactures contributed negatively to growth and offset the mostly positive impact of the equivalent primary products.

Looking at the incidence of the competitiveness effect across countries and groups also reveals significant features. First, there is wide variation in the magnitude

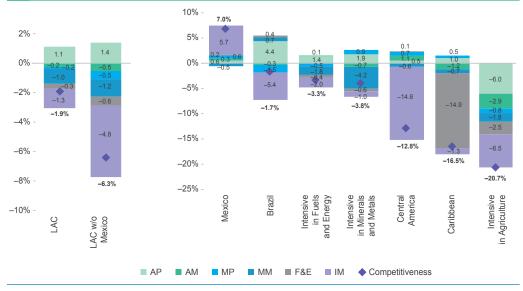
Regional competitiveness lagged in manufacturing sectors.

and direction of its contribution: from 7,0 p.p. to the growth of Mexican foreign sales to -20.7 p.p. in countries whose exports are intensive in agricultural products. Second, the largest relative declines in the competitiveness of industrial manufactures were registered in Central America (-14.6 p.p.), countries with exports intensive in agricultural products (-6.5 p.p.) and in Brazil (-5.4 p.p.). Finally, in several groups, competitiveness

The analysis by product is based on the following six categories: Agricultural Primary Products (AP), Mineral Primary Products (MP), Agricultural Manufactures (AM), Mineral Manufactures (MM), Industrial Manufactures (IM), and Fuels and Energy (F&E). If a category contributes positively/negatively to the competitiveness component, the interpretation is that the region is more/less competitive than the rest of the world in exports of the particular product category. See Methodological Annex 5.

## FIGURE 18 • COMPETITIVENESS EFFECT ON EXPORT GROWTH FOR LATIN AMERICA AND THE CARIBBEAN BY PRODUCT

(Growth rate, percentage and percentage points, 2010-2015)



Source: IDB Integration and Trade Sector with data from BACI (CEPII).

Note: The competitiveness effect is disaggregated based on the six product categories listed in footnote 13.

The greatest loss of competitiveness was in intraregional exports.

losses were concentrated in the most prominent categories of their export baskets, as observed in countries with exports intensive in agricultural products (-8.9 p.p.) and in minerals and metals (-3.3 p.p.).<sup>14</sup>

The disaggregation of the competitiveness effect by partner<sup>15</sup> reveals that, for LAC, losses were particularly large in the intraregional market. The declining competitiveness in intraregional exports subtracted 2.7 p.p. from the growth of total exports between 2010 and 2015 (Figure 19). Again,

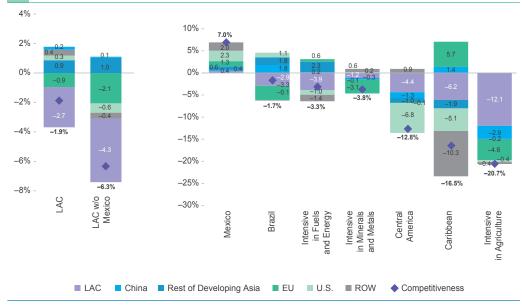
the effect is larger (-4.3 p.p.) once Mexico is excluded. The region also lost ground to global competitors in the EU market (-0.9 p.p.), despite gains by Mexico and the Caribbean. In general, LAC's exports became more competitive in the rest of developing Asia (0.9 p.p.), although performance was uneven across country groups.

 $<sup>^{14}</sup>$  The reported contributions are the sum of AP and AM (-6.0 p.p. and -2.9 p.p.) and of MP and MM (0.9 p.p. and 4.2 p.p.), respectively.

<sup>&</sup>lt;sup>15</sup> The analysis by partner is based on the following six regions: LAC, China, rest of developing Asia (India and ASEAN), European Union (EU), the United States (U.S.), and the rest of the world (ROW). In line with the analysis by product, if a partner contributes positively/negatively to the competitiveness effect, it means that the region is more/less competitive than the world in exports to that particular partner.

## FIGURE 19 • COMPETITVENESS EFFECT ON EXPORT GROWTH FOR LATIN AMERICA AND THE CARIBBEAN BY PARTNER





Source: IDB Integration and Trade Sector with data from BACI (CEPII).

Note: The competitiveness component is disaggregated based on the six partners listed in footnote 15.

Mexico's competitiveness increased in all destinations, but the performance of the remaining country groups was asymmetrical across partners. All groups lost competitiveness in the intraregional market, with the most substantial decline affecting the exports of countries intensive in agricultural products (-12.1 p.p.). In the Chinese market, Brazil (1.8 p.p.) and the Caribbean (1.4 p.p.) increased their participation, while countries with exports intensive in agricultural and mineral products, as well as Central America, lost ground. In the U.S. market, Central America (-6.8 p.p.) and the Caribbean (-5.1 p.p.)

The competitiveness of agricultural exporters declined the most in the regional market.

lost competitiveness, whereas Brazil gained (1.1 p.p.). Finally, in the European market, the Caribbean and to a lesser extent the countries with exports intensive in fuels and energy were the only groups that benefitted from the competitiveness effect (5.7 p.p. and 0.6 p.p., respectively), while negative impacts were registered for agricultural exporters (-4.6 p.p.), exporters of minerals and metals (-3.1 p.p.), and Brazil (-3.3 p.p.).

In summary, the disaggregated analysis of the competitiveness effect reveals, in broad lines, the sectors and destinations in which export opportunities were missed, independently of the evolution of global demand. In particular, in the most recent

period, LAC's competitiveness declined in industrial manufactures and in the intraregional market. To complement the analysis, the next section identifies the region's main competitors and describes the variation in their market shares.

#### Patterns of Competition in the Global Market

Stylized competitiveness maps are constructed to illustrate LAC's export position with respect to its main competitors. The maps present the variation of the market share controlled by the region in its main export destinations (columns), and contrasts it with that of other relevant export suppliers (rows). Market shares are calculated for four product categories: primary products (PP), primary manufactures (PM), industrial manufactures (IM), and fuels and energy (F&E).

Competitiveness maps characterize the position in global markets.

(Figure 20). The change in market share is the net result of the previously-discussed effects that drive export performance.<sup>18</sup> The corresponding indicators for countries and groups are reported in Statistical Annexes 1 and 2.<sup>19</sup>

The share of global trade controlled by LAC declined significantly in the post-crisis as a result of diverging performances of Mexico and the rest of the region. As previously analyzed (Box 3), LAC's exports fell from 6.16% of global trade in 2010 to 6.07% in 2015, a loss of 9 b.p. Excluding Mexico, the reduction was considerably larger, from 4.12% to 3.50%, equivalent to 62 b.p., since Mexico's market share actually increased from 2.04% to 2.56%. The lost trade revenue was equivalent to US\$14.3

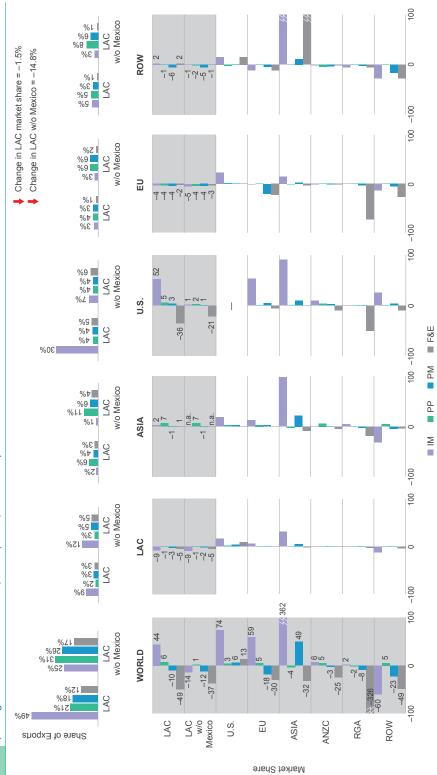
The analysis by competitor is based on the following groupings: the U.S.; the EU (including intra-zone exports); Developing Asia (in short, Asia, including China, India, and the countries of the Association of South East Asian Nations); Australia, New Zealand, and Canada (ANZC, which constitute the group of main agro industrial and mining exporters); Russia and the oil countries of the Gulf and Africa (RGA, which represent the main extraregional suppliers of fuels and energy); and the Rest of the World (ROW, within which Japan and South Korea are particularly influential). In all cases global market shares are calculated including intra-EU exports.

<sup>&</sup>lt;sup>17</sup> For this analysis, all products defined at the 6-digit level of the Harmonized Commodity Description and Coding System are aggregated under the previously defined product categories (see footnote 6). The PP category includes AP and MP, and the PM category contains AM and MM.

<sup>&</sup>lt;sup>18</sup> For a correct interpretation of the results, it should be noted that the analysis in this section examines only the product and competitiveness effects on the variation of market shares (see Statistical Annexes 1 and 2).

<sup>&</sup>lt;sup>19</sup> Statistical Annex 1 provides disaggregated information for Mexico; Brazil; Central America, including the Dominican Republic; countries with exports intensive in agricultural products (Argentina, Paraguay, and Uruguay); countries with exports intensive in minerals and metals (Peru and Chile); and countries with exports intensive in fuels and energy (Bolivia, Colombia, Ecuador, Venezuela, and Trinidad and Tobago). Unlike the map presented for the aggregate of LAC in the main text, a more aggregated sector classification is used in the detailed maps in the Annex. An additional competitor category, Other Countries of Latin America and the Caribbean (OLAC), is also included. To reduce the complexity of the visualizations and to more precisely study the patterns of competition, a "core export basket" is defined based on the most representative subset of export products for each LAC country or country group. Statistical Annex 2 presents detailed data by country.

FIGURE 20 • COMPETITIVENESS OF LATIN AMERICAN AND CARIBBEAN EXPORTS BY PARTNER, PRODUCT, AND COMPETITOR (Change in world market share, basis points, 2010-2015)



-AC exports with and without Mexico destined to each partner are indicated. Methodological Annex 6 explains the derivation of the effect, Statistical Annex 1 provides detail on the Note: The values reported indicate the change in LAC's market share in its main export destinations (columns) and that of its main competitors (rows). The composition and share of determinants of the change in market shares, and Statistical Annex 2 provides figures for specific countries and groups. Source: IDB Integration and Trade Sector with data from BACI (CEPII).

billion, or 1.6% of total regional exports in 2015. Without Mexico, the loss would have been equivalent to US\$92.2 billion, or 17.4% of regional foreign sales. In relative terms, market share fell approximately 1.5% for the whole region, or 14.8% excluding Mexico, as the country's share was 25% higher in 2015 than in 2010.

The loss in market share affected the entire region, except Mexico.

The divergence between Mexico and the rest of the region is also apparent in the analysis by partners (Figure

20, in columns). With Mexico, LAC gained market share in the U.S. (25 b.p.) and, to

The loss of intraregional market share stands out.

a lesser extent, in Asia (9 b.p.), and lost in the intraregional market (-17 b.p.), the EU (-14 b.p.) and the rest of the world (-12 p.b). Without Mexico, the picture is much more unfavorable: a smaller gain of 4 b.p. was registered in the Asian market, and the gain in the U.S. market reversed dramatically and turned into a loss of 16 b.p. Declines of similar magnitude to the ones registered for the LAC aggregate were observed in the rest of the destinations.

The analysis by product underlines the incidence of both structural and cyclical adjustments in oil markets (Figure 20, in rows). In the F&E segment, the region's market share retracted 49 b.p., essentially through a loss in the U.S. market. The adjustments in oil markets negatively affected not only LAC, but all the main suppliers, with the notable exception of the U.S., which gained market share, particularly in refined

The region suffered sharp losses in energy markets.

products. The U.S. performance resulted from the adoption of innovative extraction techniques in the country,<sup>20</sup> and came at the expense of LAC, as well as the group of fuel and energy producers (RGA), whose market share fell dramatically (326 b.p.). However, in addition to countries whose exports are intensive in fuels and energy, the adjustments in oil markets negatively impacted several other countries of the region (see Statistical Annexes 1 and 2).

Apart from this significant structural transformation, gains and losses in market share exhibit significant variations by the goods' degree of processing. For instance, the region lost market share (-4 b.p.) in the aggregate category of commodities and derivatives, which excludes energy products.<sup>21</sup> However, in the PP segment of lower value-added, which includes both agricultural and mineral primary products, a gain of 6 b.p was observed. This expansion occurred primarily in Asia, and was attributed

<sup>&</sup>lt;sup>20</sup> See Giordano (2014) for a more extensive treatment of the current transformations in the U.S. oil market and their relevance for the region.

<sup>&</sup>lt;sup>21</sup> Commodities and derivatives (C&D) includes PP and PM.

Concentration in products with lower value added increased.

to the superior performance of Brazil and countries with exports intensive in mineral products, which compensated the loss incurred by countries intensive in agricultural products (see Statistical Annexes 1 and 2). In the opposite direction, in the higher value-added PM segment, the region's market share retracted 10 b.p. The loss was observed in all destinations, except the U.S. In the European market and notably in the intraregional market, LAC lost market share to U.S. and Asian

competitors. In Asia the latter gained market share at the expense of the region, and strongly consolidated their global footprint in the segment.

The region registered important gains in the IM segment (44 b.p.), which were concentrated in the U.S. market (52 b.p.) and derived primarily from the already discussed export performance of Mexico. The rest of the region lost market share in all destinations, except for modest gains by Brazil in the U.S. (Statistical Annex 2). The most relevant development in the IM segment was LAC's loss in the intraregional market (-9 b.p.). This reduction came to the benefit of Asian competitors

Only Mexico increased market share in industrial manufactures.

and, to a lesser extent, of U.S. and EU suppliers. In the EU market, the region also lost market share (-4 b.p.), in the face of competition from the same group of suppliers.

In sum, the analysis of Latin American and Caribbean export performance reveals that, over the last decades, countries have followed clearly divergent trajectories. On the one hand, Mexico's exports became more competitive, and the country gained ground in its main destination market, the U.S., which, in turn, displayed above-average dynamism. On the other hand, the rest of the region, and particularly the countries of South America, increased their participation in Asian markets for lower-value-added primary products, but lost competitiveness in higher-value-added segments. Also noteworthy are the losses in the intraregional market, where global rivals expanded their presence at the expense of Latin American exporters. As opposed to what is commonly assumed, competition is not only coming from developing Asia, but also from exporters located in advanced economies. Two conclusions can be drawn from these findings: first, countries must prioritize policies that stimulate productivity and increase competitiveness in international markets; second, they must search for innovative ways to participate in global trade by harnessing the opportunities generated by disruptive technologies, such as electronic commerce, which is discussed in the last chapter.

# The Potential of Electronic Commerce

The sale of goods and services through electronic means, although not a new phenomenon, has been expanding rapidly, creating new opportunities for consumers and producers. In order to reap the benefits of this new type of exchange, Latin American and Caribbean countries must address both traditional and new obstacles to international trade. In addition, it is necessary to close the regulatory gap between global best practices and the region's commitments on the issue.

Information and communication technologies (ICT) have been revolutionizing trade. By reducing costs, they narrow the distance between buyers and sellers, creating new opportunities for international exchanges. However, calculating the volume and value of e-commerce is a challenge due to the intangible nature and/or small value of many transactions. This chapter provides an overview of the state of e-commerce in LAC, examines the main obstacles faced by exporters, and benchmarks the region's regulatory efforts against global best practices. The analysis suggests that, despite its growing importance, e-commerce represents a small share of the value of international trade. Thus, while it is appropriate that countries position themselves to take advantage of this new way of trading, e-commerce will only partially address the region's competitiveness limitations.

#### The Characteristics of E-commerce

Electronic commerce or e-commerce is defined as the sale or purchase of goods or services, conducted over computer networks by methods specifically designed for receiving or placing orders.<sup>22</sup> Although the sale transaction must be conducted online, the payment and delivery do not. Cross-border e-commerce, in turn, comprises online transactions leading to the delivery of goods or services in a country other

<sup>&</sup>lt;sup>22</sup> OECD (2009). It should be noted that alternative definitions are used by other organizations.

E-commerce: an opportunity for consumers, businesses and governments. than that of origin. In general, e-commerce is classified into five segments depending on the actors involved: B2B (business to business), B2C (business to consumer), C2C (consumer to consumer), B2G (business to government), and C2B (consumer to business).<sup>23</sup>

The B2B segment, which includes domestic and international transactions that take place within value chains,

accounts for the dominant share of global e-commerce. Since there are no official data on e-commerce flows, estimates are often based on proxy measures and assumptions, varying widely depending on the source and methodology. According to conservative estimates, the value of global B2B transactions was nearly US\$7 trillion in 2015, whereas alternative sources report that it had al-

Business to business is the largest e-commerce segment by value.

ready surpassed US\$15 trillion in 2012–2013 (Figure 21).<sup>24</sup> In the U.S., one of the few countries with official figures, B2B e-commerce value more than doubled in nominal terms from 2005 to 2015 (121%), reaching US\$5.7 trillion. This figure is equivalent to 44% of U.S. traditional manufacturing and wholesale transactions, which increased 29% during the same period.

Compared to the B2B segment, global B2C e-commerce amounts to a much lower value, but is growing at a substantially higher rate. Online purchases by consumers reached between US\$1.9 and US\$2.7 trillion worldwide in 2016 (Figure 21).<sup>25</sup> In the U.S., they nearly quadrupled in nominal terms (368%) between 2005 and 2015. In addition, it was equivalent to only 5% of U.S. traditional retail in 2015, suggesting that there remains substantial room to grow.

Although cross-border e-commerce still constitutes a small percentage of international trade, it is also picking up.<sup>26</sup> International sales of goods in the B2C segment are estimated to have amounted to over US\$300 billion in 2015, equivalent to

<sup>&</sup>lt;sup>23</sup> The classification applies to domestic and cross-border e-commerce. Due to data limitations, this chapter focuses on the B2B and B2C segments.

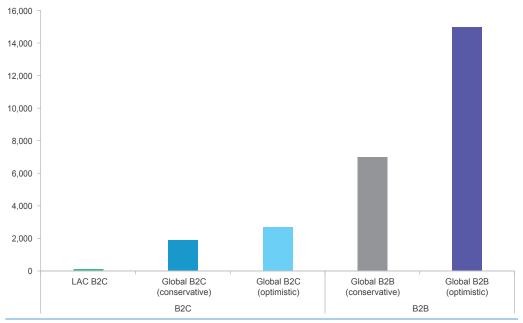
<sup>&</sup>lt;sup>24</sup> Statista (2016a) and United National Conference on Trade and Development (2016).

<sup>&</sup>lt;sup>25</sup> Statista (2017) and E-commerce Foundation (2016).

<sup>&</sup>lt;sup>26</sup> Cross-border e-commerce includes the sale of physical products bought online and shipped across borders, and of digital products (e.g. music, videos, applications and games) purchased and downloaded online, as well as online services transactions. There is no agreed upon definition of digital products in the WTO, particularly in what regards those products that used to be exchanged physically and that can now be traded virtually. There is also lack of clarity regarding whether these transactions should be regulated by the General Agreement on Tariffs and Trade (GATT) or the General Agreement on Trade in Services (GATS). In addition to the problems with its definition, calculating the volume and value of cross-border e-commerce is an even greater challenge than measuring domestic e-commerce. This happens because digitally-traded products are intangible and not declared to customs, while physical shipments below a certain amount are also not captured in official statistics.

## FIGURE 21 • ESTIMATED GLOBAL AND LATIN AMERICAN AND CARIBBEAN B2B AND B2C E-COMMERCE SALES

(Billions of US\$, selected time periods)



Sources: IDB Integration and Trade Sector with data from Statista, the United Nations Conference on Trade and Development (UNCTAD), and E-commerce Foundation.

*Note*: The figure summarizes the available estimates for B2B and B2C e-commerce sales, and includes domestic and cross-border transactions. LAC B2C sales are reported with similar figures by Statista and E-commerce Foundation for 2015 (see footnote 29). The low estimates for global B2C (for 2016) and B2B (for 2015) are reported by Statista. The high estimate for global B2C (for 2016) is reported by E-commerce Foundation, and for global B2B (for 2013) is reported by UNCTAD. There are no data for LAC B2B sales.

1.4% of global exports of goods that year.<sup>27</sup> The relative importance of cross-border e-commerce is modest, but it increased 30% from 2014 to 2015, and is expected to continue expanding considerably to reach around US\$1 trillion by 2020.<sup>28</sup> One way to approximate the increasing dynamism of cross-border B2C e-commerce is to

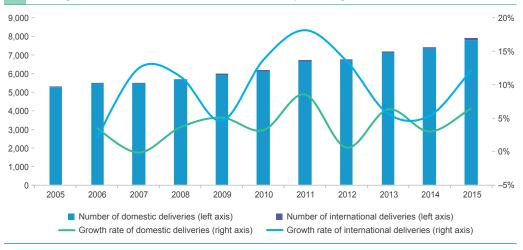
The value of business to consumer transactions is lower, but is growing at a higher rate.

<sup>&</sup>lt;sup>27</sup> Specific data on electronic trade in services are not available. Yet, it is possible to estimate its importance based on figures for cross-border trade in services, corresponding to delivery mode 1 of the WTO classification, as such transactions occur primarily through electronic means. For the 28 members of the EU, cross-border trade in services accounted for 21% of total services trade by value in 2013 (EuroStat, 2016). Meanwhile, the U.S. exported US\$357.4 billion in digitally-deliverable services in 2011, representing over 60% of U.S. services exports and about 17% of total U.S. goods and services exports (U.S. Department of Commerce, 2014). These figures indicate that electronic transactions are potentially more relevant and represent a larger share in the services than in the goods sector.

<sup>&</sup>lt;sup>28</sup> AliResearch-Accenture (2016).

FIGURE 22 • LATIN AMERICA DOMESTIC AND INTERNATIONAL SMALL PARCEL DELIVERY





Source: IDB Integration and Trade Sector with data from the Universal Postal Union (UPU).

observe the growth of international small parcel delivery. Despite considerable annual variation, and the fact that international deliveries account for less than 2% of small parcel shipping, its number has grown faster than that of domestic deliveries nearly every year since 2005, increasing around 155% until 2015 (Figure 22).

A small percentage of international trade is conducted electronically.

Latin America's participation in e-commerce remains

marginal, despite substantial increase. B2C sales in the region were around US\$47 billion in 2015, a growth of 24% from the previous year.<sup>29</sup> Yet, the share of global B2C spending controlled by the region hovers around 2%, which is lower than its

E-commerce sales in Latin America are below potential. participation in global GDP (7%) and in international merchandise trade (6%). It is also substantially below the 40% share of global B2C spending controlled by Asia. Additionally, as a percentage of GDP, e-commerce represented less than 1% in the region, whereas it was over 3% globally, and between 4 and 5% in Asia in 2015.<sup>30</sup> Finally, as a share of total retail

<sup>&</sup>lt;sup>29</sup> Statista (2016b) and E-commerce Foundation (2016). Statista (2016b) reports B2C sales of US\$47.4 billion in 2015, while the E-commerce Foundation (2016) reports US\$46.2 billion. The E-commerce Foundation includes Mexico in North America; the figure reported for Latin America from this source is adjusted to include Mexico.

<sup>&</sup>lt;sup>30</sup> E-commerce Foundation (2016).

sales, e-commerce sales in Latin America (1 to 1.9%) were considerably below the world average (7 to 8.7%) in 2016.<sup>31</sup>

Only a few Latin American countries are actively participating in e-commerce. Brazil, Mexico and Argentina account for around 70% of all regional transactions by value, slightly above their corresponding share of the region's GDP. Brazil is the e-market leader with over US\$15 billion in sales in 2015, followed by Mexico with sales of over US\$13 billion, and Argentina with nearly US\$5 billion.<sup>32</sup>

Nearly 70% of regional e-commerce value is generated in Brazil, Mexico and Argentina.

The average number of annual online transactions per capita in Latin America in 2016

The digitalization of consumers is greater than that of producers.

Cross-border e-commerce is a booming segment in the region. Latin America has the highest percentage of online consumers that make purchases exclusively abroad (15%), compared to 4% in Asia. Additionally, 42% of Latin American online consumers make purchases both domestic and internationally.<sup>34</sup> However, while consumers are buying

was the lowest worldwide, 9.2, compared to 22.1 in Asia.<sup>33</sup>

abroad, Latin American sellers are not taking as much advantage of international e-commerce markets, as gathered from the region's falling share and lower rate of growth of international parcel dispatches (Figure 23).<sup>35</sup>

In a context of low growth rates for both the region's GDP and global trade, e-commerce emerges as a potentially revitalizing force. However, what is sold is as important as how it is sold, and the fact that LAC countries specialize in the export of goods that are not particularly suitable for online sales may limit the potential of e-commerce in the region.<sup>36</sup> Additionally, there are specific barriers that may prevent consumers and producers from becoming online buyers and sellers, as discussed below.

#### **Regional Barriers to E-commerce**

Fostering e-commerce requires addressing both longstanding obstacles to trade and emerging constraints that are specific to doing business online. As with traditional

<sup>&</sup>lt;sup>31</sup> Statista (2017) and E-commerce Foundation (2016).

<sup>32</sup> E-commerce Foundation (2016).

<sup>&</sup>lt;sup>33</sup> Statista (2016b).

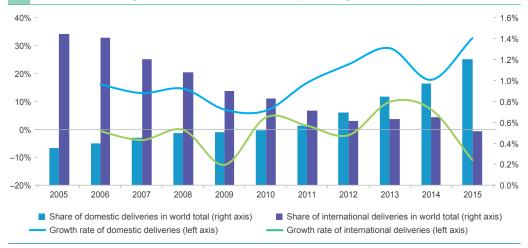
<sup>&</sup>lt;sup>34</sup> Ipsos PayPal (2016).

<sup>35</sup> The next section addresses some of the obstacles faced by online exporters in the region.

<sup>&</sup>lt;sup>36</sup> The B2B segment, which comprises the bulk of e-commerce transactions by value, is partially structured around manufacturing supply chains. Thus, LAC's relatively minor share of global e-commerce is partially explained by its specialization in commodities and low engagement in production sharing schemes. For an analysis of LAC's export specialization, see Giordano (2016); for an overview of LAC's participation in global value chains, see Blyde (2014).



(Volume and average annual variation, millions and percentage, 2005-2015)



Source: IDB Integration and Trade Sector with data from the Universal Postal Union (UPU).

Note: The figure summarizes the annual statistics on postal parcels collected from national postal operators by the UPU.

For international service, postal parcels are articles transported under the conditions of the Universal Postal Convention and the Regulation on Postal Orders. For domestic service, the country-specific definition applies. The volume is measured in number of packages.

forms of international trade, e-commerce is hampered by macroeconomic instability, lack of access to financial services, low-skilled labor force, inexistent or deficient infrastructure, and burdensome customs procedures, among other factors. It is also hindered by barriers that prevent businesses and consumers from accessing the online marketplace, carrying out

Digital barriers compound traditional ones.

electronic payments, and completing the delivery of both digital and physical goods and services purchased over the Internet. As the first set of constraints has been extensively analyzed in the literature, this section focuses on those obstacles specific to e-commerce transactions, particularly cross-border, and analyzes how LAC countries have been addressing them in the context of preferential trade agreements (PTAs).

Internet access is increasing, but remains below potential. As per the definition, e-commerce includes the online sale of goods or services, while the payment and delivery may occur online or offline. Table 4 describes the basic requirements for the successful completion of each of the three stages (sale, payment and delivery), as well as those for the establishment of a supportive regulatory framework for e-commerce.<sup>37</sup>

 $<sup>^{37}</sup>$  Some requirements may be common to multiple stages, although they are not repeated in the table. Regulatory aspects are analyzed in the last section.

#### **TABLE 4 • STAGES OF E-COMMERCE TRANSACTIONS**

## Placing/Receiving Orders Access to reliable and affordable ICT and energy

 Development of ICT/digital skills (for workforce and consumers).

infrastructure and services.

### Submitting/Processing Payments

- Access to electronic payment methods (e.g. credit and debit cards) and/or online banking.
- Access to secure electronic payment solutions (e.g. third party e-payment service providers).

#### Completing Deliveries

- Logistics and transportation systems adapted to the requirements of smaller and higher-frequency shipments.
- Standardized, harmonized and simplified customs procedures, especially for lower-value consignments.

#### **Regulatory Framework**

Market Assess	C commerce Cocilitation	Drotaction of Hoors
Market Access	E-commerce Facilitation	Protection of Users

Source: IDB Integration and Trade Sector.

To engage in e-commerce, businesses and consumers must have Internet access. Policies to expand availability and adoption of ICT have been implemented by most countries in LAC, with encouraging results in some areas such as mobile broadband.<sup>38</sup> In fact, the average number of mobile broadband subscriptions per 100 inhabitants increased from 5.6 in 2011 to 59.1 in 2016. However, there is still wide variation across subregions and penetration remains lower than the average for OECD countries, at 87.1 lines per 100 inhabitants in 2016 (Figure 24).

Despite progress in Internet penetration, service quality and cost remain problematic. In 2016, the average speed for mobile broadband in LAC was 2.05 Mbps, compared to 22.02 Mbps for OECD countries. Additionally, in the same year, the monthly mobile subscription cost US\$35.1 in the region, while in wealthier OECD countries customers paid on average US\$24.5.39 Finally, access to technology is

not enough in the absence of relevant ICT skills. Although data are limited to a few countries and correspond to 2009, the UNESCO<sup>40</sup> reports that 69% of Brazilian secondary schools have access to the Internet for pedagogical purposes, while Ecuador stands at 45%, and Argentina at 36%. The regional outlier is Uruguay, with 100% coverage. The different rates of Internet access, quality and cost, as

The quality and cost of Internet access limit the participation of firms.

<sup>&</sup>lt;sup>38</sup> Mobile broadband is a service that allows users to access the internet anywhere, whenever mobile coverage is available

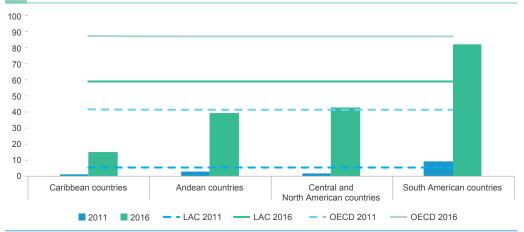
<sup>&</sup>lt;sup>39</sup> Monthly subscription prices are measured in U.S dollars in terms of purchase power parity. For detail on methodology and sources, refer to *the Índice de Desarrollo de Banda Ancha* of the IDB, available at https://descubre.iadb.org/es/digilac/pages/indice-de-desarrollo-de-banda-ancha.

<sup>40</sup> UNESCO (2017).

well as skills availability, are reflected in a lower share of LAC firms with online presence (41%) compared with that of OECD firms (78%), and the world average (44%) (Figure 25).

#### FIGURE 24 • MOBILE BROADBAND SUBSCRIPTIONS BY SUBREGION

(Number of subscriptions by 100 inhabitants, 2011 and 2016)

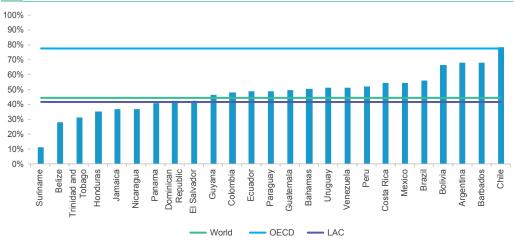


Source: IBD Integration and Trade Sector with data from the Índice de Desarrollo de Banda Ancha.

Note: LAC corresponds to all IDB member countries, grouped according to the Bank's classification: Caribbean (Bahamas, Barbados, Guyana, Jamaica, Suriname, Trinidad and Tobago), Andes (Bolivia, Colombia, Ecuador, Peru, Venezuela),
Central and North America (Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Mexico, Panama, Dominican Republic), South America (Argentina, Brazil Chile, Paraguay, Uruguay).

#### FIGURE 25 • LATIN AMERICAN AND CARIBBEAN FIRMS WITH WEBSITE

(Share of total, percentage, 2010)

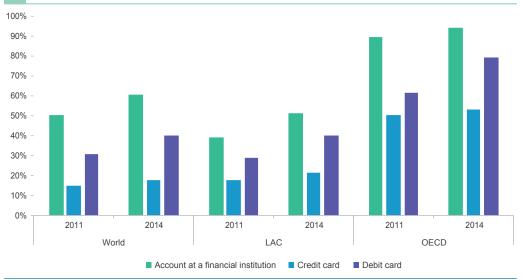


Source: IDB Integration and Trade Sector with data from the World Bank/International Financial Corporation Enterprise Survey.

Note: Data refer to manufacturing firms only and correspond to 2010 for all countries, except Brazil (2009), and the Dominican Republic and Ecuador (2016). World and OECD country figures are calculated as averages of country-level point estimates using the latest available year of survey data.

#### FIGURE 26 • POPULATION WITH SELECTED PAYMENT METHODS

(Share of total, percentage, 2011 and 2014)



Source: IDB Integration and Trade Sector with data from the Global Financial Inclusion Database.

Note: Denotes the percentage of respondents 15 years of age or older who report having an account (by themselves or together with someone else) at a bank or another type of financial institution, a credit card or a debit card.

Carrying out e-commerce transactions requires access to efficient and secure payment methods and systems. In 2014, the share of LAC's population with an account at a financial institution was reasonably on par with world averages (51% and 61%, respectively). Even greater parity was observed in the case of credit and debit cards (22% and 18% for credit cards, and 40% each for debit cards). Yet, the proportion is much lower than that in OECD countries (94%, 53% and

Limited access to financial intermediaries restrict payment options.

80% for each respective category). In fact, LAC's 2014 figures are lower than those exhibited by OECD countries in 2011 (Figure 26). In addition, the data does not take into consideration whether these systems are suitable for international transactions, and analyses suggest that banks in the region still charge high fees to transfer and receive money from abroad,<sup>41</sup> while debit and credit cards can only be used in transactions in the countries' national currencies, hampering cross-border trade.

<sup>&</sup>lt;sup>41</sup> The Multilateral Investment Fund (MIF) of the IDB reports that the cost of transferring money in the region dropped from as high as 20% of the transferred amount in 2000 to an average of 5.5% in 2010 (MIF, n.d.). Although the cost is still considered high, the drop has been partially driven by greater competition in financial market due to the entry of start-ups and other non-bank institutions, which offer lower rates, but also less guarantees. For an overview of MIF research on money transfers, see www.iadb.org/en/topics/remittances/by-the-numbers,2584.html.

One of the major barriers faced by regional exporters is the monetary and time costs imposed by international transportation and customs procedures. These issues constitute a particularly difficult challenge to the shippers of small and low-value consignments (Box 4). The sales of small and medium-sized enterprises (SMEs) venturing into the international trade business lack the scale that would lead to lower shipping costs, which, all else equal, make up a higher proportion of the final price of low-value goods.<sup>42</sup>

Deficient logistics translate into high shipment costs.

Digital obstacles are particularly detrimental to small enterprises. Regional SMEs engaged in cross-border e-commerce recognize the particularly harmful effects of poor logistics and burdensome customs regulations. A survey of firms engaged in the ConnectAmericas platform revealed that over 30% of regional exporters rate market access, logistics and customs regulations as the most serious barriers to online cross-border trade (Figure 27). Partial solutions to these obstacles include improving infrastructure, standardizing procedures and forms, electronically interconnecting

customs and logistic operators to allow for advanced cargo information, and automatizing risk management processes. Yet, new regulatory issues emerge, such as the discussion over increasing *de minimis* exemption levels.<sup>43</sup> In this regard, IDB estimates for eight Latin American countries suggest that median firm-destination exports would increase 20% in response to a doubling of the *de minimis* level across destinations.<sup>44</sup>

In sum, harnessing the opportunities of modern technologies for international insertion requires overcoming obstacles that have long prevented LAC producers from thriving in the global stage. It also requires addressing new issues ranging from access to various forms of ICT infrastructure and services to customs modernization and harmonization. Underpinning these issues is the need to establish a regulatory framework that gives producers and consumers the necessary instruments, guarantees and protection to engage in electronic transactions.

<sup>&</sup>lt;sup>42</sup> For example, if the exported good costs US\$100, US\$1 in shipping costs represents only 1% of the price, whereas it amounts to 10% of the cost of a US\$10 good.

<sup>&</sup>lt;sup>43</sup> The term *de minimis* refers to the value below which imported goods can be exempted from customs duties upon entering the country. This value varies across countries.

<sup>&</sup>lt;sup>44</sup> Unpublished IDB estimates. These gravity-based estimates include the traditional controls such as distance, GDP, trade agreements, common language, etc.

## BOX 4: EXPORTA FÁCIL - FACILITATING SMES EXPORTS THROUGH POSTAL INTEGRATION

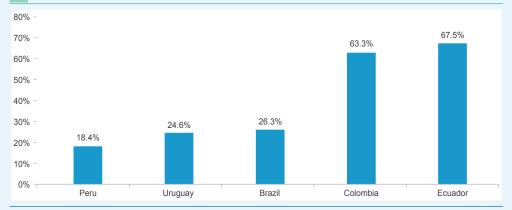
Engaging in cross-border e-commerce, while particularly beneficial, is also relatively costlier to SMEs. This is so because such firms tend to sell small volumes of lower-cost items, and have more limited knowledge of customs procedures and export regulations. It is precisely in this kind of situation that programs such as *Exporta Fácil*, implemented by some Latin American postal services, can have the greatest impact. Postal services are well positioned to facilitate trade: their offices are present virtually everywhere and are entry/exit points for international deliveries. Additionally, the costs associated with shipping through their network and using their logistics solutions tend to be lower, especially for SMEs located in remote areas and those producing specialized goods.<sup>a</sup>

Exporta Fácil was launched in Brazil in 2000 to take advantage of the postal service network to promote SME exports. The positive results obtained in the country led the program to be selected in 2004 as one of the 31 strategic priority projects of the Initiative for the Integration of Regional Infrastructure in South America (IIRSA). Since then, it has expanded to another four countries (Colombia, Ecuador, Peru, and Uruguay) and four others are in the process of implementation (Argentina, Bolivia, Chile, and Venezuela), with a view towards integrating the different national platforms to facilitate intraregional trade in small parcels.

By allowing SMEs to submit simplified customs documentation electronically, and taking over the logistics for small shipments through the postal services, countries implementing the *Exporta Fácil* program support the diversification of exports in terms of firms, products and destinations, which is essential in reducing vulnerabilities and increasing competitiveness.

#### **EXPORTA FÁCIL EXPORT VALUES BY COUNTRY**

(Average annual variation, percentage, selected time periods)



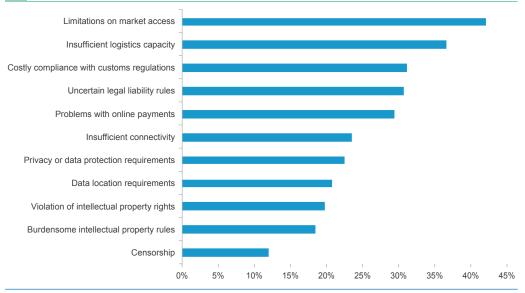
Source: IDB Integration and Trade Sector with data from national authorities participating in IIRSA's Trade Integration through Postal Services for MSMEs project.

Note: Data refer to the following periods: Peru and Uruguay (2009-2013), Brazil (2000-2013), Colombia (2010-2013) and Ecuador (2012-2013).

<sup>&</sup>lt;sup>a</sup> Volpe (2016).

FIGURE 27 • PERCEPTION OF CHALLENGES BY LATIN AMERICAN COMPANIES IN CROSS-BORDER E-COMMERCE

(Share of respondents, percentage, 2017)



Source: IDB Integration and Trade Sector with data from a survey of ConnectAmericas firms. Note: Figure based on responses to a survey of 300 LAC companies that participate in the ConnectAmericas platform. Respondents were asked to rate each issue on a scale from 1 (not a challenge) to 5 (a significant challenge). Percentages reported refer to respondents that gave rates of 4 or 5.

#### **Regulating Cross-border E-commerce**

International trade, whether conducted via traditional or digital means, is subject to the multilateral rules established under the auspices of the WTO. The General Agreement on Tariffs and Trade (GATT), for instance, applies to goods purchased online and physically delivered across borders, whereas the General Agreement on Trade and Services (GATS) does not distinguish between the means through which services are delivered. Likewise, other agreements such as the Agreement

The multilateral regulatory framework on e-commerce is incomplete.

on Trade-related Intellectual Property Rights (TRIPS) and the Agreement on Technical Barriers to Trade (TBT) have direct implications for e-commerce. Yet, the extent to which these multilateral rules apply to e-commerce is not always clear. This prompted the WTO to establish a Work Program on Electronic Commerce in 1998 to clarify application and close loopholes. Additionally, e-commerce was selected as a core topic of discussion during the organization's 11th Ministerial Conference in Buenos Aires in December 2017.

Lack of clarity and gaps in regulation, coupled by the slow pace at which the issue is being addressed in multilateral fora, has led countries to start including e-commerce provisions in PTAs, so as to establish a level playing field among partners. The Trans-Pacific Partnership (TPP), negotiated between twelve countries in the Asia-Pacific region, including Chile, Mexico and Peru in LAC, is potentially the trade agreement with the broadest range of e-commerce provisions. These are mostly contained in Chapter 14 and cover 12

The TPP agreement is a reference in terms of e-commerce provisions.

different issues (Box 5). The uncertainty surrounding the agreement's entering into force due to the decision by the U.S. to withdraw from it does not change the fact that its e-commerce provisions can be regarded as a benchmark against which other agreements can be appraised.<sup>45</sup>

#### **BOX 5: SUMMARY OF E-COMMERCE PROVISIONS IN THE TPP**

The following are obligations pertaining to e-commerce included in the TPP agreement.<sup>a</sup> Although the provisions are not grouped by theme in the agreement, for analytical and illustrative purposes, they are classified here under three categories: market access, e-commerce facilitation, and protection of users. References in parenthesis refer to articles in the agreement.

#### Market Access

- 1. **Non-discriminatory treatment of digital products**: determines that Parties shall not accord less favorable treatment to digital products from one Party than accorded to other like digital products, excluding broadcasting (Article 14.4).
- 2. **Customs duties:** forbids the imposition of customs duties on electronic transmissions, including content transmitted electronically, but maintains the Parties' right to impose internal taxes or other charges (Article 14.3).
- 3. Cross-border transfer of information by electronic means: requires Parties to allow the cross-border transfer of information by electronic means, recognizing that each party may have its own regulatory requirements concerning such transfer (Article 14.11).
- 4. **Location of computing facilities:** forbids Parties from requiring the use or location of computing facilities in the Party's territory as a condition for conducting business (Article 14.13).
- 5. **Source code:** forbids Parties from requiring the transfer of, or access to, source code of software owned by a person of another Party, as a condition for the import, distribution, sale or use of such software, or of products containing such software, in its territory (Article 14.17).

(continued on next page)

<sup>&</sup>lt;sup>45</sup> Michalczewsky and Ramos (2017).

#### **BOX 5: SUMMARY OF E-COMMERCE PROVISIONS IN THE TPP** (continued)

#### E-commerce Facilitation

- Domestic electronic transactions framework: requires Parties to maintain a domestic legal framework consistent with the principles of the 1996 United Nations Commission on International Trade Law (UNCITRAL) Model Law on Electronic Commerce or the 2005 United Nations Convention on the Use of Electronic Communications in International Contracts (Article 14.5).<sup>b</sup>
- 7. **Electronic authentication and electronic signature:** establishes the legal validity of electronic signatures and requires the adoption of measures for electronic authentication (Article 14.6).
- 8. Paperless trading: compels Parties to make trade administration documents available in electronic form, and to accept such documents submitted electronically as the legal equivalents of paper versions (Article 14.9).
- 9. Cooperation: recognizes the importance of working together to facilitate the use of e-commerce by SMEs, and compels Parties to exchange information on regulations, policies, enforcement and compliance, participate in regional and multilateral fora, and encourage the development of methods of self-regulation by the private sector (Article 14.15).

#### Protection of Users

- 10. **Online consumer protection:** recognizes the importance of adopting and maintaining transparent and effective measures to protect consumers, and of cooperation among consumer protection agencies on activities related to cross-border electronic commerce (Article 14.7).
- 11. **Personal information protection:** requires Parties to adopt or maintain a legal framework that provides for the protection of personal information, taking into account the principles and guidelines of relevant international bodies (Article 14.8).
- 12. **Unsolicited commercial electronic messages:** mandates Parties to adopt or maintain measures regarding unsolicited electronic messages, and to provide recourse against suppliers of such messages (Article 14.14).

Although only three LAC countries are party to the TPP, several of them have signed agreements containing full chapters or specific provisions on e-commerce. In this context, it is opportune to analyze the inclusion and treatment of these regulatory issues in the network of PTAs subscribed by LAC countries, benchmarking regional efforts against the TPP agreement.

<sup>&</sup>lt;sup>a</sup> The analysis focuses on the provisions contained in Chapter 14 (E-commerce) of the TPP, recognizing that measures affecting the supply of services delivered or performed electronically need to be in line with the obligations contained in Chapters 9 (Investment), 10 (Cross-border Trade in Services), and 11 (Financial Services). Article 14.10 on the principles on access to and use of the Internet for electronic commerce, Article 14.12 on Internet interconnection charge sharing, and Article 14.16 on cooperation on cybersecurity measures are excluded from the analysis as they recognize the importance of these issues, but do not establish specific obligations. Article 14.18 on dispute settlement is also excluded as it pertains to exemptions and extended transition periods awarded to Malaysia and Vietnam. <sup>b</sup> The Model Law on Electronic Commerce and the United Nations Convention on the Use of Electronic Communications in International Contracts aim to facilitate e-commerce by providing national legislators with a set of internationally acceptable rules on electronic communications. In particular, they provide for equal treatment between paper-based and electronic information, which is essential for enabling paperless trading.

### E-Commerce Provisions in Preferential Trade Agreements

The analysis of e-commerce provisions in LAC's PTAs includes both a quantitative and a qualitative dimension. First, it identifies whether the provisions on e-commerce included in Chapter 14 of the TPP are also reflected in the selected sample of PTAs signed by LAC countries. 46 Second, it examines the treatment of these issues in terms of depth of commitments. 47 The quantitative analysis reveals that nearly 70% of the surveyed PTAs contain at least one provision on e-commerce, with 52% containing a separate e-commerce chapter. All but two (85%) extraregional

Around 70% of trade agreements include e-commerce provisions.

PTAs include either a full chapter or provisions pertaining to e-commerce, whereas a little over half (56%) of the intraregional ones do so. A total of 100 provisions on e-commerce were identified, with an average of 3.4 provisions per agreement (Figure 28). LAC PTAs contain on average less than a third of the e-commerce provisions included in the TPP, and most commitments, 89 out of the 100, were undertaken in agreements signed in the last decade (2006–2017). It should be noted also that nearly two thirds of the analyzed agreements were signed in the last ten years.

The types of commitments undertaken and their depth vary widely. Provisions in the category of **e-commerce facilitation** are the most frequent ones. Of the 100 identified provisions, 45 were in this category. Specifically, 17 out of the 29 agreements (59%) have some commitment on *paperless trading*. These are not necessarily within e-commerce chapters, as in the TPP, but rather in chapters dealing with trade facilitation and customs administrations. Provisions on *cooperation* 

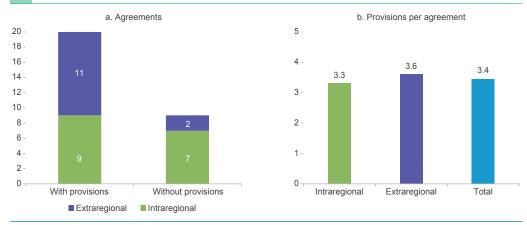
E-commerce facilitation obligations are the most frequent.

<sup>&</sup>lt;sup>46</sup> For this analysis, a sample of PTAs was selected based on the following criteria: agreements signed after 1995, classified as free trade areas, and notified to the WTO. 29 agreements were analyzed, of which 16 are intraregional and 13 are extraregional with LAC's main partners: China, the EU, and the U.S. The main regional trade agreements, namely the Andean Community (CAN), the Caribbean Community (CARICOM), the Central American Common Market (CACM), and the Southern Common Market (MERCOSUR), were excluded from the statistical analysis. This methodological choice was based on the fact that the referred agreements were signed prior to 1995 and do not comprise, in their original texts, specific provisions on a relatively new topic such as e-commerce. Their inclusion would, therefore, bias the results of the analysis downwards. They are nonetheless included in the qualitative discussion on measures adopted by the blocs and not reflected in the text of the agreement.

<sup>&</sup>lt;sup>47</sup> Some methodological limitations are the following: the quantitative exercise is based on the texts of the PTAs' underlying agreements, focusing exclusively on legal commitments undertaken in the context of trade negotiations, which excludes complementary legislation and initiatives. Additionally, it does not consider the degree of implementation of undertaken commitments, meaning that, while countries might have agreed to certain obligations, the reality on the ground might not reflect them. Refer to Methodological Annex 7 for further details on coverage, procedures and limitations.

## FIGURE 28 • E-COMMERCE PROVISIONS IN SELECTED LATIN AMERICA AND CARIBBEAN PREFERENTIAL TRADE AGREEMENTS

(Number of agreements and provisions per agreement)



Source: IDB Integration and Trade Sector with data from INTrade.

on e-commerce issues, and on *electronic authentication and electronic signature* are found in 41% and 38% of agreements, respectively. Finally, 17% of agreements deal with *domestic regulatory framework*, but with much weaker language than the TPP, only requiring that regulations be transparent and not unnecessarily restrictive (Figure 29).

The second most common category of provisions is that of **market access**, with 36 out of the 100 provisions. The prohibition on the imposition of *customs duties on electronic transmissions* is found in 48% of the agreements, making permanent and legally binding the WTO moratorium, as in the TPP.<sup>48</sup> Provisions on the free flow of information across borders are found in 38% of the agreements. However, the TPP includes a separate article compelling parties to

Market access provisions are found in nearly half of the agreements.

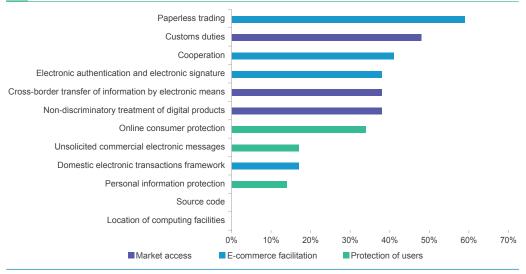
allow the *cross-border transfer of information*, while most LAC PTAs determine that countries shall cooperate or hold future discussions to ensure that information flows freely. That is, the provisions included in LAC PTAs constitute a much lighter best endeavor obligation. Different wording is also found in the 38% of agreements that deal with the *non-discriminatory treatment of digital products*: the TPP and the majority of LAC PTAs prohibit discrimination of digital and "like products". 49 Yet, a few PTAs determine that digital goods will not receive less

<sup>&</sup>lt;sup>48</sup> While no specific agreement is reached in the WTO regarding global electronic commerce, member countries agreed not to impose customs duties on electronic transmissions, the so-called "moratorium".

<sup>&</sup>lt;sup>49</sup> In general, "like products" are those that are identical in all respects to the product under consideration or, in the absence of such a product, another product which has characteristics closely resembling those of the

# FIGURE 29 • E-COMMERCE PROVISIONS IN SELECTED LATIN AMERICA AND CARIBBEAN PREFERENTIAL TRADE AGREEMENTS BY TYPE

(Percentage)



Source: IDB Integration and Trade Sector with data from INTrade.

favorable treatment than those traded "by other means", not specifying if the prohibition applies only to identical or also to similar products. Finally, none of the analyzed PTAs deals with the issues of *source code* and *location of computing facilities* (Figure 29).

**Protection of users** is largely excluded from the list of commitments undertaken by LAC countries. The issue comprises only 19 of the 100 provisions, and while 34% of them include wording on *online consumer protection*, the commitment is often to maintain dialogue on the issue and to ensure cooperation between national consumer protection agencies.

Protection of users is absent in most agreements.

Protection of personal information and against unsolicited electronic messages are only cursorily mentioned under cooperation initiatives in a handful of agreements (Figure 29).

In sum, while most of the analyzed agreements contain e-commerce provisions, their average number of commitments is less than a third of those contained in the TPP. Greater progress has been achieved in implementing e-commerce facilitation measures, but these include a few commitments that are not exclusive to digital trade, such as

product under consideration. Yet, the practical determination of what constitutes a like product is often done on a case-by-case basis and varies across agreements.

the automation of customs procedures. Meanwhile, very few negotiations have addressed e-commerce specific topics, particularly those pertaining to online protection.

### The Regulatory Gap in Latin America and the Caribbean

There is a gap between potential and actual commitments.

The disparity between LAC's regulatory framework on e-commerce and the global benchmark (TPP) is even more evident if measured in terms of the gap between potential and actual commitments. Potential commitments are those that LAC countries would have to abide by if all 12 provisions of the TPP were to be adopted. Actual commitments are those that have in fact been undertaken in the countries' PTAs.<sup>50</sup> The analysis conducted in this section measures the quantitative gap between

the provisions contained in the TPP and those included in the selected sample of LAC PTAs, giving equal weight to each provision. It should be recognized nonetheless that some provisions have a greater potential impact on the expansion of e-commerce than others. For instance, if all parties to a PTA already have compatible domestic legislation establishing the equivalence of paper-based and electronic communications, including such a provision in the agreement, while reducing the quantitative gap, should not have

a substantial qualitative impact on e-commerce. Similarly, the inclusion of a provision prohibiting the imposition of customs duties has had negligible qualitative impact, as no country effectively does so. The potential impact of specific provisions, in addition, is partially dependent on the context in which they are negotiated. Thus, defining which ones should be prioritized must be determined on a case-by-case basis.<sup>51</sup>

The regulatory gap is large, but slightly smaller in extraregional agreements.

To quantify the gap between potential and actual commitments, a matrix of bilateral relationships of LAC countries amongst themselves and with the 3 main extraregional partners was built. To each bilateral relationship the number of potential commitments (12, using the TPP as a benchmark), and the number of actual commitments were assigned. Since the Caribbean countries have near uniform commitments, they were treated as a single unit, resulting in a dataset of 19 LAC countries (18 Latin American countries plus the Caribbean) and 3 extraregional (China, EU and the U.S.), for a total of 22. This dataset comprises 171 intraregional bilateral relationships and 57 bilateral relationships between the region and the 3 extraregional partners. Thus, if all the TPP provisions were adopted by LAC countries, 2,052 bilateral commitments (12\*171) would be undertaken within the region and 684 (12\*57) with the extraregional partners. These are the potential commitments against which actual commitments are compared. Refer to Methodological Annex 7 for details on the construction of the matrix and assignation of commitments.

<sup>&</sup>lt;sup>51</sup> Some provisions are arguably essential in enabling e-commerce, particularly those pertaining to cross-border data transfers and protection of e-commerce participants. Yet, the qualitative impact of including them in trade agreements still depends on whether the issues are regulated via domestic legislation, and on the compatibility of such legislation across signatory countries.

Actual commitments correspond to only 13% of potential obligations. The gap is slightly smaller for extraregional agreements, that contain 17% of all potential obligations, in comparison to 12% for intraregional ones. The number of provisions per bilateral relationship is marginally larger in extraregional than in intraregional ACPs (2 and 1.5, respectively) (Figure 30). The extraregional gap is in great part due to the scarcity of PTAs with China, compounded by the

Protection of users is absent in the majority of the agreements.

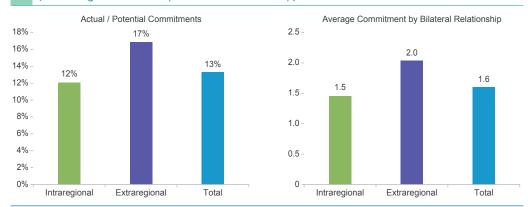
small number of provisions in the few PTAs that have been signed with the country. Agreements with the EU and the U.S. are more numerous and contain a higher number of e-commerce provisions. However, commitments in LAC-U.S. agreements tend to be deeper than those with EU countries, which are mostly restricted to recognizing the importance of the topic and pledging to maintain dialogue and cooperation on e-commerce development.

The member countries of the Pacific Alliance adopted the greatest number of provisions, 10 on average. Chile, Colombia, Mexico and Peru have been the most prolific negotiators, and the agreements subscribed by them contain the highest number of e-commerce provisions. As three out of the four countries are party to the TPP negotiations, commitments have been undertaken in all the categories: market access, e-commerce facilitation, and protection of users.

Pacific Alliance countries have undertaken the greatest number of commitments.

FIGURE 30 • COVERAGE OF E-COMMERCE PROVISIONS IN LATIN AMERICA AND THE CARIBBEAN

(Percentage and number per bilateral relationship)



Source: IDB Integration and Trade Sector with data from INTrade.

*Note*: Actual commitments refer to those that have in fact been undertaken by countries in the region in the framework of selected PTAs. Potential commitments refer to those that LAC countries would have to abide by if the 12 provisions of the TPP were to be adopted in all intra and extraregional bilateral relationships.

The Common Market of the South (MERCOSUR) has remained largely on the sidelines. Negotiations involving Argentina, Brazil, Paraguay and Uruguay have stalled in the last few years, leading to a large gap between potential and actual e-commerce commitments. However, it should be noted that MERCOSUR has advanced some internal standards through decisions and resolutions on electronic authentication and signature, consumer protection, and paperless trading, in addition to establishing a working group on e-commerce

Regulations in MERCOSUR have been established via internal resolutions.

to foster cooperation. Bolivia is closer to MERCOSUR in terms of coverage, while Ecuador has undertaken some commitments in the context of its negotiations with Colombia, Peru and the EU.

Central
America and
the Caribbean
undertook
commitments
through
extraregional
negotiations.

Central American and Caribbean countries benefited from extraregional negotiations to advance e-commerce regulations. While there are no provisions in the text of the Central American Common Market (CACM), these countries undertook some significant obligations—about 6 out of the 12 included in the TPP—by signing the Free Trade Agreement with the U.S. and the Dominican Republic (CAFTA-DR). These provisions are spread equally between market access and e-commerce facilitation categories. Similarly, the CARIFORUM-EU agreement provided Caribbean countries with the opportunity to agree on 5 out of 12 provisions,

although the language is lighter and commitments are not as deep as those in the TPP. Additionally, the Revised Treaty of Chaguaramas establishing the CARICOM single market and economy included a provision requesting countries to elaborate a protocol on e-commerce.

In conclusion, while LAC countries still struggle to address longstanding obstacles to international trade, new challenges emerge with electronic commerce. The analysis of PTA provisions shows that LAC lags in terms of establishing a supportive and harmonized regulatory framework dealing with the topic. While the significance of e-commerce is still marginal compared to the value of traditional trade, conditions are evolving at the speed of technological change. The extent to which the region will be able to capitalize on these developments depends on how quickly it can modernize its regulatory framework and close the competitiveness gap analyzed in this report.

## **Conclusions**

After the trade relapse of 2014, the so-called "double-dip", LAC's exports returned to a path of growth. However, the trend reversal has been primarily driven by a rebound in commodity prices and, as of mid-2017, the recovery remains fragile and concentrated in a few economies. Coming out of the longest trade recession in its recent history, LAC faces a global outlook substantially less favorable than the one that prevailed before the crisis. This scenario is characterized by the end of the commodity price boom that sustained external demand for more than a decade, endemic competitiveness limitations that resulted in an erosion of regional and global market shares, and protectionist tendencies that could hamper access to key markets. These factors underscore the need to implement productivity-enhancing policies to improve the region's competitiveness, as well as to harness the opportunities generated by disruptive technologies, such as electronic commerce.

After a decade in which trade either stagnated or contracted, the export recovery marks a much-needed trend reversal for Latin America and the Caribbean. However, the fragility of the recovery stresses the far-reaching impact of the transformations underway in the global economy, as well as their implications for the region's trade prospects.

The easing of external pressures, resulting primarily from higher oil and mineral prices, should not overshadow the long-term trends that characterize commodity markets. In nominal terms, it seems clear that the price boom that sustained regional trade performance for more than a decade has come to an end. Despite a brief improvement at the beginning of the year, the region's terms of trade have reverted to a level similar to that prevailing before the disruptive entry of China into the global trading system. Moreover, the structural transformation in the United States oil market, due to the adoption of unconventional extractive techniques, and the growing uncertainty about the long-run growth rate of the Chinese economy, point to stabilization or even deflation in the next few quarters. In real terms, although global trade has

regained momentum after the slowdown of recent years, LAC has remained insulated from the more dynamic sources of growth.

In a longer-term perspective, the analysis of regional trade performance indicates an erosion of participation in global markets. The loss of global market share resulted not only from the composition of the region's export basket, biased towards commodities whose prices have been falling, but also from its declining competitiveness. The analysis also reveals the divergent paths followed by Mexico, whose manufacturing exports gained ground in the United States market, and by the majority of South American economies, which largely reoriented their exports towards Asia and lost competitiveness in higher-value-added segments. Despite these divergences, there has been a generalized loss of competitiveness in the intraregional market, where most economies lost ground to foreign competitors. Thus, as Mexico faces the challenge of renegotiating the terms of access to its main export market, and the remaining countries face headwinds in commodity markets, there is a renewed sense of urgency in fostering regional integration, and prioritizing policies to strengthen the region's competitiveness in international markets.

Looking forward, and in a context of fragile growth and low competitiveness, electronic commerce emerges as a revitalizing force. Even though the size of the market is relatively small and insufficient to be a driving factor in overall regional trade flows, LAC countries should be able to expand their presence in cross-border electronic commerce, particularly in those segments that are growing substantially faster than traditional merchandise trade. The challenge is to overcome longstanding trade barriers, whose costs are proportionally greater for operators in the new economy, as well as obstacles related to the digital nature of e-commerce. A review of the international commitments undertaken by LAC countries reveals that the regional regulatory framework is relatively incomplete and fragmented. This provides ample opportunity for reform, as governments place the issue at the forefront of the multilateral trade agenda.

These are just some of the elements that should be included in an ambitious policy agenda to sustain the incipient trade recovery. However, it is evident that in order to adjust to the structural forces that are shaping the global economy, a more protectionist stance in developed countries, and to overcome the endemic competitiveness shortcomings accumulated over the last decades, the region must recast the private sector development strategies with a new emphasis on expediting its internationalization.

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# Statistical Annex 1 Patterns of Competitiveness in Export Markets by Country and Group

This annex analyzes the changes in market shares of LAC countries and of their most relevant competitors in primary export destinations. To this end, exports are disaggregated into two broad product categories: industrial manufactures (IM) and commodities and their derivatives (C&D). Markets to which the region exports the two product categories are identified. In order to make the analysis more tractable, the range of products analyzed is restricted in two aspects: first, for each country a "core basket" of exports is defined. Second, exports of fuels and energy are excluded, except for the group of countries specialized in that category of products.<sup>52</sup> It is important to note that the analysis abstracts from the global and partner compositional effects when comparing specific destination markets.<sup>53</sup>

### Mexico

Mexico's core basket covers 44% of the country's total exports<sup>54</sup> and is composed in almost 90% by IM, mostly automotive and electric and electronic goods. It also includes a significant proportion of C&D, both agricultural (fruits, beverages, and meats) and mineral (silver, iron ore and iron manufactures, and copper derivatives),<sup>55</sup>

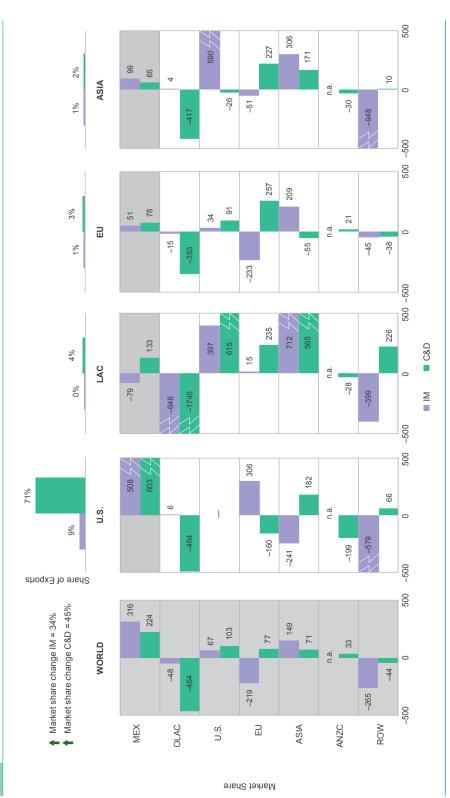
The core basket for each country or group of countries is obtained by excluding those 6-digit HS categories whose flows represented less than 1% of exports in 2015. This restriction allows for a clearer identification of the analyzed countries' and group's main competitors in the most relevant export categories. For example, if energy exports were included in the baskets of countries specialized in a different category, the main oil exporters would be included as their competitors, although they are not relevant in the analysis. It should be noted, however, that working with core baskets sacrifices the additive property, that is, the sum of the changes in market share for individual LAC countries and groups is not equivalent to the changes for the aggregate of LAC, provided in Figure 20 of Chapter 3.

Since the global effect affects all economies equally, when working with market shares the effect disappears. When observing one destination in particular, the partner effect is also canceled out. The product effect persists since, even with a limited basket of goods, the countries or country groups experience changes in market share resulting from the composition of their export baskets. The competitiveness effect also persists.

 $<sup>^{54}</sup>$  Of the 56% excluded, 6% is composed of F&E and 50% of categories with less than 1% (8% C&D and 42% IM).

<sup>55</sup> This analysis excludes exports of F&E, which are the main export products in the C&D category for Mexico.

FIGURE A1 • MEXICO - COMPETITIVE DYNAMICS IN PRINCIPAL EXPORT MARKETS (Change in market share, basis points, 2010–2015)



Source: IDB Integration and Trade Sector with data from BACI (CEPII).

Note: See Figure 20. The core basket contains 44% of total Mexican exports in 2015. n.a., market share changes are only shown for the principal competitors by product category.



distributed proportionately between commodities and manufactures.

Mexico increased its market share in both product categories and in practically all relevant destinations, especially the U.S., its main market (Figure A1). The increase in Mexico's IM share even exceeded that of the U.S. and Asia. In C&D, Mexico not only gained more than these countries, but also outpaced the EU and the group of main agro exporters (ANZC). Finally, with regards to the intraregional market, Mexico's gain in C&D came

at the expense of other countries of Latin America and the Caribbean (OLAC). Yet, LAC is the only destination in which Mexico lost market share in IM.

In the U.S., the increase in Mexico' share in the IM market was due to gains in both automotive goods, at the expense of Japan (included in ROW), and electric and electronic goods, where market share was gained from China (included in Asia). Simultaneously, the improved position in C&D was due to increased exports of fruits, beverages, and meats. In the EU, Asian, and LAC markets, Mexican sales of C&D gained ground at the expense of other LAC countries and despite strong competition from the EU.

### **Brazil**

In the case of Brazil, the core basket represents 55% of exports.  $^{56}$  About three quarters correspond to C&D, where commodities dominate. The basket incorporates both

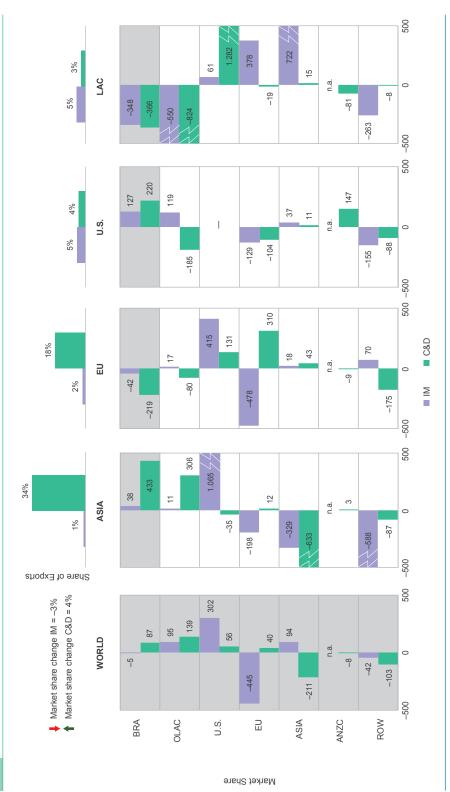
agricultural (soybeans, meats, coffee, sugar, fruits) and mining products (iron ore and derivatives), and IM (especially goods of the automotive complex, aircraft, and chemicals).

At the global level, Brazil preserved its market share in IM and gained ground in C&D (Figure A2). However, as an economy with a relatively homogeneous distribution of export destinations, the aggregate result hides contrasting dynamics. On the one hand, the country increased its market share in Asia, driven by C&D, and in the U.S., where it also conquered IM markets. On



<sup>&</sup>lt;sup>56</sup> Of the 45% excluded, 7% is composed of F&E and 38% of categories with less than 1% (17% C&D and 20% IM).

FIGURE A2 • BRAZIL - COMPETITIVE DYNAMICS IN PRINCIPAL EXPORT MARKETS (Change in market share, basis points, 2010-2015)



Source: IDB Integration and Trade Sector with data from BACI (CEPII).

Note: See Figure 20. The core basket contains 55% of total Brazilian exports in 2015. n.a., market share changes are only shown for the principal competitors by product category.

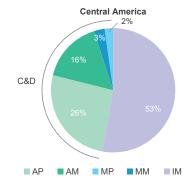
the other hand, Brazil lost ground in the EU, mainly in C&D, and in the intraregional market in both categories.

In Asian markets, significant for C&D, Brazil sharply raised its presence in the category. This was particularly true in China, Brazil gained ground against other Asian countries such as India. In the U.S., where Brazil also expanded its presence, the increase in C&D was at the expense of OLAC, which lost significant ground, and of EU exporters to a lesser extent. In IM, Brazil gained share in the U.S. market from Canada (ROW) and the EU. In contrast, in the intraregional market, Brazil's performance was relatively poor. In its main export market for IM, Brazil lost to competitors from Asia and the EU. It also lost market share in C&D due to a notable penetration of U.S. exports. Finally, in the EU, the South American giant was left behind as exporters from the EU itself and from the U.S. gained ground.

### **Central America**

Central America's<sup>57</sup> core basket accounts for 71% of the subregion's exports.<sup>58</sup> IM represents just over half, and includes apparel, medical instruments, orthopedic apparatus, integrated circuits, and medicines. The other half of the basket is composed mainly of agricultural products such as tropical fruits, coffee, sugar, and tobacco.

The subregion lost market share in IM and gained in C&D (Figure A3). In the first category, market share was lost to competition from Asia, especially China. The loss was replicated in all main markets, except



for the intraregional, which represents a significant 23% of total exports. In C&D, the loss of market share in the U.S. was more than compensated by gains elsewhere.

While in the IM markets the competition from Asian exporters was unequivocal, Central America also lost ground to U.S. exporters, mainly in the EU and in LAC. In the intraregional market, the only one where Central America gained share, progress came at the expense of OLAC and Japan (ROW). In contrast, in C&D, the loss of market share in the U.S. to Canada (ANZC) was somewhat compensated by slight gains in other markets.

<sup>&</sup>lt;sup>57</sup> Includes Costa Rica, the Dominican Republic, El Salvador, Honduras, Guatemala, Nicaragua, and Panama.

 $<sup>^{58}</sup>$  Of the 29% excluded, 3% corresponds to F&E and 26% to categories representing less than 1% (11% C&D and 15% IM).

FIGURE AS • CENTRAL AMERICA - COMPETITIVE DYNAMICS IN PRINCIPAL EXPORT MARKETS

(Change in market share, basis points, 2010-2015)



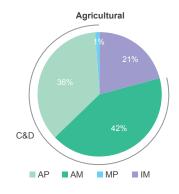
Source: IDB Integration and Trade Sector with data from BACI (CEPII).

Note: See Figure 20. The core basket contains 71% of total Central American exports in 2015. n.a., market share changes are only shown for the principal competitors by product category.

### Countries with exports intensive in agricultural products

The core basket for exporters of products intensive in agriculture<sup>59</sup> includes 65% of the group's exports.<sup>60</sup> More than three quarters of the basket are C&D products, mostly agricultural (soybeans, wheat, corn, and beef), while the rest of the export supply under analysis is composed of IM (autos, pharmaceuticals, chemicals, and plastics).

Globally, these economies lost market share in C&D and IM (Figure A4). In the former, the group lost ground in all markets, except the U.S., while in the latter the setback was mainly in the intraregional market.



In LAC, which is the main destination for IM exports, ground was lost mainly to competition from other Latin American countries (OLAC), the U.S., and the EU, with smaller losses to Asia. The pattern was repeated on a greater scale in the case of C&D, where the loss was mostly in favor of the EU. In Asia, the most important destination for agricultural exports, the group lost market share to Brazil (OLAC). In the EU, which represents another significant market for C&D exports, the loss was in favor of the U.S. and intra-EU trade.

### Countries with exports intensive in minerals and metals

The core basket of the group of countries with exports intensive in minerals and met-

Mineral

11% 7%

11% 40%

31%

AP AM MP MM IM

als<sup>61</sup> represents 68% of their total exports.<sup>62</sup> Close to 70% of the basket is composed of copper, copper concentrates, and refined copper, with just over 20% composed of agricultural, forestry, and fishery products (fruits, wine, fish and fish oils, seafood, and paper pulp). The remaining 10% correspond to IM (textiles, fertilizers, rubber, paper, and cardboard).

The group's competitive dynamics was heterogeneous (Figure A5). In the IM sector, it gained in intraregional market and the U.S., the most

<sup>&</sup>lt;sup>59</sup> Includes Argentina, Paraguay and Uruguay.

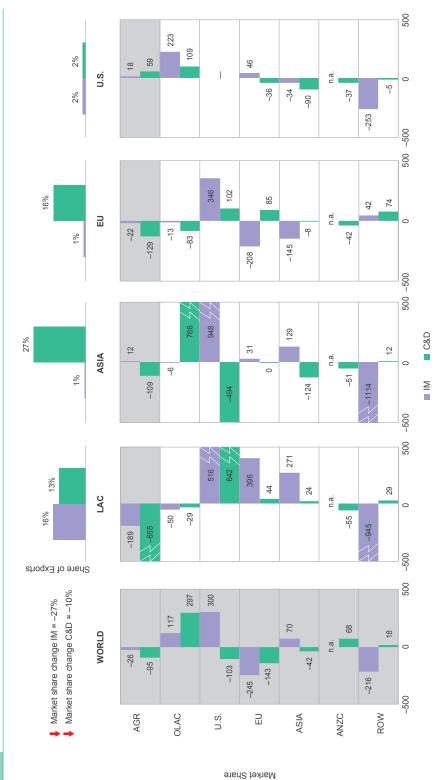
<sup>60</sup> Of the 35% excluded, 5% corresponds to F&E and 30% to categories representing less than 1% (20% C&D and 10% IM).

<sup>61</sup> Includes Chile and Peru.

<sup>62</sup> Of the 32% excluded, 3% is F&E and 29% categories with less than 1% of export (23% C&D and 6% IM).

FIGURE A4 • AGRICULTURAL PRODUCTS EXPORTERS - COMPETITIVE DYNAMICS IN PRINCIPAL EXPORT MARKETS

(Change in market share, basis points, 2010-2015)

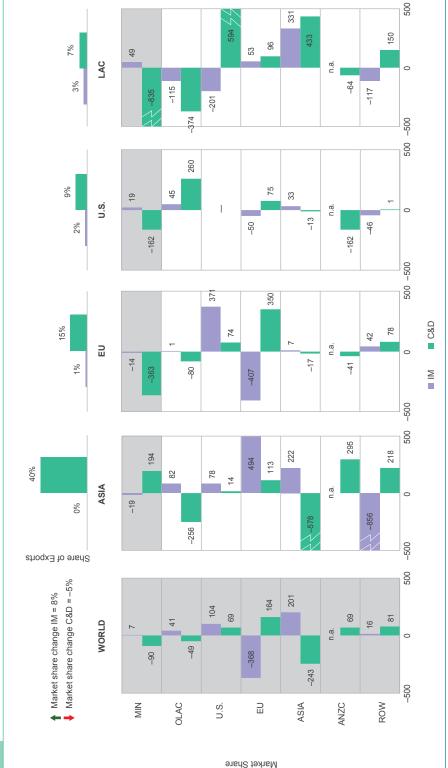


Source: IDB Integration and Trade Sector with data from BACI (CEPII).

Note: See Figure 20. The core basket contains 65% of total exports from LAC agroexporters in 2015. n.a., market share changes are only shown for the principal competitors by product category.

# FIGURE AS • MINERAL AND METAL EXPORTERS - COMPETITIVE DYNAMICS IN PRINCIPAL EXPORT MARKETS

(Change in market share, basis points, 2010-2015)



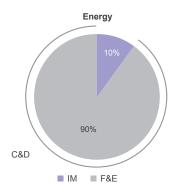
Source: IDB Integration and Trade Sector with data from BACI (CEPII).

Note: See Figure 20. The core basket contains 68% of total exports from mineral/metal exporters in 2015. n.a., market share changes are only shown for the principal competitors by product category.

important markets. The group's position in C&D deteriorated markedly as a result of setbacks in nearly all destinations, especially in the region itself, which were not compensated by gains in Asia.

The most relevant changes were observed in the intraregional market. On one hand, there was a sharp decline in C&D market share, in favor of practically all competitors. On the other, in IM, the group grew its market share not only at the expense of OLAC, the U.S., and the ROW, but also resisted competition from Asia, that significantly expanded its presence. In Asian markets, the strong penetration of C&D eroded the position of OLAC and Asia itself. However, this driver was weaker than for other competitors. Finally, in secondary markets such as the U.S. and the E.U., significant negative movements were recorded. There were some gains in agricultural products, but these were not sufficient to compensate for the setbacks in mining products.

### Countries with exports intensive in fuels and energy



For the exporters of fuels and energy,<sup>63</sup> the core basket represents 70% of exports.<sup>64</sup> It is extremely concentrated, as 90% of the total are energy products (crude and refined oil, natural gas, and coal), while the rest includes petrochemical manufactures, fertilizers, plastics, and autos.

The group lost market share in IM and C&D (Figure A6). In the former, the most relevant loss was within the region, where Asia and the EU gained ground. Exports to the U.S., also relevant, lost ground to goods from the EU. The IM goods sold in the EU held their position,

as the U.S. increased its market share.

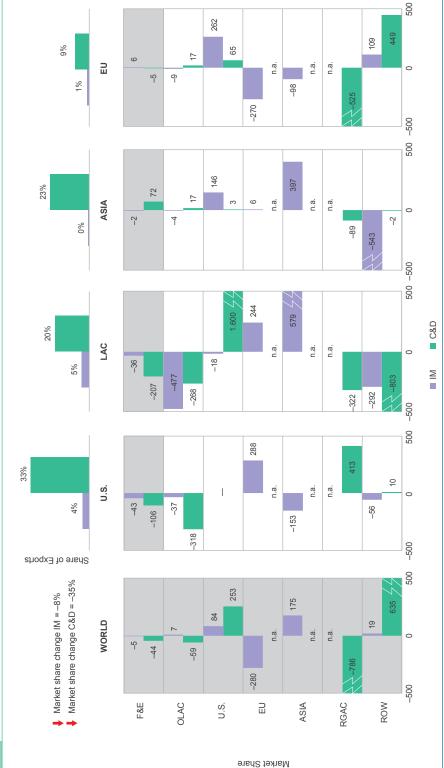
In their core specialization, energy goods, there were significant changes. The loss of global market share was explained mainly by declining participation in the U.S. and LAC markets, the first and third most important ones. In the U.S., the main competitor was Canada (RGAC), while in the regional market it was the U.S. that increased its presence through exports of refined products. Improvements in Asia, the second most important market, compensated partially for the losses. Finally, in the EU, the group share remained steady in the face of increased sales from Norway (ROW).

<sup>&</sup>lt;sup>63</sup> The group includes Bolivia, Colombia, Ecuador, Trinidad and Tobago, and Venezuela. Unlike that of other countries and groups, this group's core basket includes fuels and energy.

<sup>&</sup>lt;sup>64</sup> The 30% excluded is made up of categories with less than 1% of exports (25% C&D and 5% IM).

# FIGURE A6 • FUEL AND ENERGY EXPORTERS - COMPETITIVE DYNAMICS IN PRINCIPAL EXPORT MARKETS





Source: IDB Integration and Trade Sector with data from BACI (CEPII).

Note: See Figure 20. The core basket contains 70% of total exports from F&E exporters in 2015. n.a., market share changes are only shown for the principal competitors by product category.

# Statistical Annex 2 Decomposition of Exports Variation by Country

This statistical annex shows the disaggregation of export growth rates of LAC countries between 2010 and 2015. As described in Methodological Annex 6, the export growth rate of an economy is divided into three composition effects (global, products, and partner) and the competitiveness effect. The global effect is equal to the growth of world trade (Table A1). Additionally, the competitiveness effect can be disaggregated into a product (Table A2) and a partner component (Table A3). Finally, the market shares for 2010 and 2015 are reported for the region (and its subgroups) and its competitors in the main export markets (Tables A4–A10).

TABLE A1 • COMPONENTS OF EXPORT GROWTH

(Growth rates, percentage and percentage points, 2010-2015)

	Cor	Contribution to the variation of exports									
	Global	Product	Partner	Competitiveness	Growth Rate (%)						
Argentina	4.1	9.5	-5.0	-26.4	-17.8						
Bahamas	4.1	-14.1	0.1	-27.7	-37.6						
Belize	4.1	-11.0	-7.6	29.3	14.8						
Bolivia	4.1	2.8	19.7	-5.7	20.9						
Brazil	4.1	-5.6	-2.9	-1.7	-6.1						
Barbados	4.1	0.0	-22.3	-45.0	-63.2						
Chile	4.1	-8.3	0.9	-5.7	-9.0						
Colombia	4.1	-19.2	0.1	5.2	-9.8						
Costa Rica	4.1	0.4	8.3	-44.5	-31.7						
Dominican Republic	4.1	8.8	2.1	6.6	21.6						
Ecuador	4.1	-18.3	3.2	8.9	-2.1						
Guatemala	4.1	3.0	0.8	19.8	27.7						
Guyana	4.1	9.8	-6.9	49.8	56.8						
Honduras	4.1	9.8	6.6	1.1	21.6						
Haiti	4.1	5.6	0.6	58.9	69.3						
Jamaica	4.1	4.3	34.5	-40.8	2.1						
Mexico	4.1	5.9	13.4	7.0	30.4						
Nicaragua	4.1	12.5	14.8	43.7	75.1						
Panama	4.1	-10.5	-14.5	-30.7	-51.6						
Peru	4.1	-3.9	-0.9	0.8	0.1						
Paraguay	4.1	11.1	-1.1	17.6	31.7						
El Salvador	4.1	6.1	11.2	2.9	24.3						
Suriname	4.1	-4.2	-9.5	-29.1	-38.7						
Trinidad and Tobago	4.1	-9.1	4.6	-19.6	-20.0						
Uruguay	4.1	12.4	-2.7	-0.3	13.5						
Venezuela	4.1	-37.5	-5.9	-8.4	-47.7						

Source: IDB Integration and Trade Sector with data from BACI (CEPII).

**TABLE A2 • COMPETITIVENESS EFFECT ON EXPORT GROWTH BY PRODUCT** (Percentage points, 2010-2015)

		Contribution to					
	AP	MP	AM	MM	F&E	IM	the variation of exports
Argentina	-6.6	-1.0	-5.2	-2.3	-3.1	-8.3	-26.4
Bahamas	0.0	-0.6	-0.4	-2.3	-37.0	12.7	-27.7
Belize	7.5	0.0	16.3	3.7	-3.7	5.4	29.3
Bolivia	-1.3	-5.6	1.1	1.2	0.7	-1.7	-5.7
Brazil	4.4	-1.5	-0.3	0.7	0.4	-5.4	-1.7
Barbados	-1.3	0.0	-5.8	-0.8	-4.3	-32.8	-45.0
Chile	0.9	0.6	-0.3	-5.5	-0.1	-1.4	-5.7
Colombia	1.1	-0.1	0.2	-2.9	9.1	-2.2	5.2
Costa Rica	-1.3	0.0	-0.1	-0.5	-0.3	-42.2	-44.5
Dominican Republic	1.4	-0.1	-0.1	-3.0	-0.5	8.8	6.6
Ecuador	8.9	0.0	0.2	0.7	0.8	-1.7	8.9
Guatemala	3.6	5.7	5.6	1.2	0.7	3.1	19.8
Guyana	14.0	4.7	2.4	1.9	0.0	26.9	49.8
Honduras	3.0	-1.6	0.9	-0.1	-2.2	1.1	1.1
Haiti	-0.1	0.0	0.4	0.8	0.0	57.8	58.9
Jamaica	-1.4	3.0	-8.5	-0.4	-1.4	-32.1	-40.8
Mexico	0.6	0.6	0.3	-0.5	0.2	5.7	7.0
Nicaragua	3.3	0.0	8.3	0.3	-0.1	31.9	43.7
Panama	-0.9	0.0	-1.1	-0.9	2.7	-30.5	-30.7
Peru	4.2	1.6	-1.9	-1.2	-1.8	-0.1	0.8
Paraguay	-0.9	0.0	10.2	0.5	3.5	4.3	17.6
El Salvador	-1.8	0.0	-0.3	-1.7	-0.2	6.9	2.9
Suriname	0.0	-0.8	1.0	-0.4	-3.7	-25.1	-29.1
Trinidad and Tobago	0.1	-0.9	-0.3	-0.9	-13.6	-3.9	-19.6
Uruguay	-5.4	0.0	6.7	0.6	-2.3	0.2	-0.3
Venezuela	0.0	-0.3	0.0	-2.4	-4.0	-1.6	-8.4

Source: IDB Integration and Trade Sector with data from BACI (CEPII).

TABLE A3 • COMPETITIVENESS EFFECT ON EXPORT GROWTH BY PARTNER

(Percentage points, 2010-2015)

		Contrib	t	Contribution to			
	LAC	China	Rest of Developing Asia	EU	U.S.	ROW	the variation of exports
Argentina	-14.2	-4.1	-0.3	-5.9	-0.8	-1.1	-26.4
Bahamas	-19.7	0.5	-6.8	13.6	-12.7	-2.5	-27.7
Belize	3.7	0.5	1.8	9.9	4.8	8.6	29.3
Bolivia	-1.1	0.1	1.1	1.7	-2.7	-4.9	-5.7
Brazil	-2.9	1.8	1.8	-3.3	1.1	-0.1	-1.7
Barbados	-4.2	0.7	0.3	-1.4	-14.7	-25.6	-45.0
Chile	-2.0	-2.2	-0.4	-3.3	0.7	1.3	-5.7
Colombia	1.9	-3.0	0.6	5.5	-2.9	3.1	5.2
Costa Rica	-9.5	-6.0	-3.1	-3.5	-21.9	-0.4	-44.5
Dominican Republic	7.6	-0.6	0.9	0.4	-4.4	2.6	6.6
Ecuador	-11.4	1.5	3.8	0.6	10.7	3.6	8.9
Guatemala	-0.1	2.0	0.1	4.5	5.7	7.6	19.8
Guyana	37.3	3.9	-1.3	5.4	1.6	2.9	49.8
Honduras	2.3	-2.1	0.0	3.0	-3.0	0.9	1.1
Haiti	6.7	0.6	-0.6	-0.2	49.4	2.9	58.9
Jamaica	-3.3	2.0	-0.5	4.4	-10.8	-32.5	-40.8
Mexico	0.4	0.4	0.6	1.3	2.3	2.0	7.0
Nicaragua	17.5	0.8	-0.5	3.4	18.9	3.6	43.7
Panama	-20.1	2.6	-1.0	-1.0	-6.6	-4.7	-30.7
Peru	0.8	4.3	0.7	-2.7	-1.0	-1.2	0.8
Paraguay	7.5	0.5	1.8	0.9	0.6	6.4	17.6
El Salvador	-1.1	1.0	0.0	-1.2	3.6	0.7	2.9
Suriname	-13.0	3.2	5.2	-4.7	-8.1	-11.7	-29.1
Trinidad and Tobago	-3.6	-0.5	-0.1	-0.9	-4.8	-9.8	-19.6
Uruguay	-8.9	5.2	-0.6	2.3	2.2	-0.4	-0.3
Venezuela	-5.8	2.0	3.6	-2.2	-2.4	-3.6	-8.4

 $Source: {\tt IDB\ Integration\ and\ Trade\ Sector\ with\ data\ from\ BACI\ (CEPII)}.$ 

Note: The competitiveness component is disaggregated based on the six regions listed in footnote 15.

TABLE A4 • LAC - MARKET SHARE BY REGION, PRODUCT, AND PARTNER

(Percentage, 2010 and 2015)

	Primary Products												
	LA	AC .		oping sia	U.	U.S. E		U ROW		)W	World		
	2010	2015	2010	2015	2010	2015	2010	2015	2010	2015	2010	2015	
LAC	0.11	0.10	0.31	0.38	0.16	0.21	0.26	0.22	0.33	0.33	1.18	1.25	
LAC w/o Mexico	0.11	0.10	0.30	0.37	0.10	0.12	0.25	0.21	0.32	0.30	1.09	1.10	
ROW	0.01	0.01	0.19	0.24	0.03	0.04	0.28	0.28	0.33	0.33	0.85	0.90	
EU	0.01	0.01	0.05	0.08	0.02	0.02	1.06	1.06	0.25	0.24	1.38	1.42	
U.S.	0.11	0.12	0.18	0.20	0.00	0.00	0.06	0.08	0.28	0.26	0.62	0.66	
Developing Asia	0.02	0.02	0.33	0.30	0.08	0.09	0.12	0.11	0.33	0.32	0.88	0.85	
ANZC	0.02	0.02	0.35	0.41	0.10	0.13	0.07	0.07	0.28	0.24	0.82	0.87	
RGA	0.00	0.00	0.06	0.05	0.00	0.00	0.03	0.03	0.10	0.10	0.19	0.18	
Total PP	0.29	0.29	1.47	1.67	0.39	0.49	1.88	1.85	1.89	1.81	5.92	6.12	

	Primary Manufactures												
	LAC		Developing LAC Asia		U.	U.S.		EU		)W	World		
	2010	2015	2010	2015	2010	2015	2010	2015	2010	2015	2010	2015	
LAC	0.24	0.21	0.23	0.22	0.23	0.27	0.25	0.21	0.27	0.21	1.22	1.11	
LAC w/o Mexico	0.21	0.19	0.22	0.21	0.12	0.13	0.24	0.20	0.25	0.20	1.05	0.93	
ROW	0.06	0.06	0.76	0.71	0.22	0.26	0.62	0.57	1.06	0.90	2.73	2.50	
EU	0.09	0.10	0.37	0.40	0.26	0.31	3.71	3.51	1.11	1.06	5.55	5.37	
U.S.	0.21	0.24	0.19	0.22	0.00	0.00	0.14	0.14	0.44	0.44	0.98	1.04	
Developing Asia	0.07	0.12	0.69	0.91	0.28	0.37	0.35	0.37	1.05	1.16	2.45	2.94	
ANZC	0.02	0.02	0.17	0.17	0.32	0.35	0.08	0.07	0.19	0.15	0.78	0.75	
RGA	0.01	0.01	0.18	0.15	0.04	0.04	0.21	0.18	0.40	0.37	0.83	0.75	
Total PM	0.70	0.77	2.60	2.77	1.35	1.59	5.36	5.04	4.52	4.29	14.53	14.45	

(continued on next page)

TABLE A4 • LAC - MARKET SHARE BY REGION, PRODUCT, AND PARTNER

(Percentage, 2010 and 2015) (continued)

Industrial Manufactures												
	LA	AC	Developing Asia		U.S.		EU		RO	)W	Wo	orld
	2010	2015	2010	2015	2010	2015	2010	2015	2010	2015	2010	2015
LAC	0.63	0.54	0.08	0.10	1.31	1.83	0.23	0.19	0.27	0.29	2.51	2.95
LAC w/o Mexico	0.51	0.41	0.04	0.05	0.22	0.23	0.14	0.09	0.11	0.09	1.01	0.87
ROW	0.69	0.57	4.45	4.13	1.66	1.92	2.84	2.70	3.32	3.04	12.97	12.36
EU	0.69	0.75	1.76	1.88	1.72	2.25	14.31	14.30	5.13	5.01	23.61	24.20
U.S.	1.23	1.40	1.01	1.20	0.00	0.00	1.34	1.57	2.36	2.52	5.95	6.69
Developing Asia	1.04	1.35	3.14	4.12	2.96	3.87	3.56	3.71	4.78	6.06	15.47	19.10
ANZC	0.07	0.07	0.11	0.12	0.93	1.03	0.13	0.11	0.20	0.17	1.43	1.50
RGA	0.02	0.03	0.23	0.27	0.04	0.05	0.16	0.16	0.54	0.49	0.99	1.00
Total IM	4.36	4.70	10.78	11.82	8.62	10.94	22.57	22.75	16.60	17.58	62.93	67.80

Fuels and Energy												
	LAC		LAC Developing		U.S.		EU		RO	)W	World	
	2010	2015	2010	2015	2010	2015	2010	2015	2010	2015	2010	2015
LAC	0.21	0.17	0.16	0.17	0.64	0.28	0.11	0.08	0.13	0.05	1.25	0.75
LAC w/o Mexico	0.21	0.16	0.15	0.16	0.40	0.19	0.08	0.05	0.12	0.04	0.97	0.60
ROW	0.06	0.03	0.58	0.55	0.15	0.06	1.07	0.80	0.69	0.63	2.56	2.07
EU	0.04	0.04	0.04	0.05	0.14	0.09	1.43	1.21	0.41	0.39	2.07	1.77
U.S.	0.24	0.33	0.04	0.04	0.00	0.00	0.09	0.09	0.17	0.22	0.55	0.68
Developing Asia	0.04	0.02	0.72	0.63	0.03	0.03	0.07	0.03	0.68	0.51	1.54	1.22
ANZC	0.02	0.01	0.17	0.12	0.58	0.49	0.04	0.02	0.28	0.20	1.09	0.84
RGA	0.10	0.08	1.48	1.30	0.77	0.27	2.01	1.28	3.21	1.39	7.57	4.31
Total F&E	0.73	0.67	3.20	2.86	2.32	1.21	4.82	3.51	5.56	3.39	16.62	11.63

Source: IDB Integration and Trade Sector with data from BACI (CEPII). Note: The acronyms are defined in footnote 16.

TABLE A5 • MEXICO — MARKET SHARE BY REGION, PRODUCT, AND PARTNER

(Percentage, 2010 and 2015)

Commodities and Derivatives												
	L	AC		Developing Asia		U.S.		EU		)W	Wo	rld
	2010	2015	2010	2015	2010	2015	2010	2015	2010	2015	2010	2015
Mexico	3.7	5.0	1.5	2.2	34.2	40.3	0.4	1.2	2.4	3.7	4.9	7.2
OLAC	54.3	36.9	34.1	29.9	14.4	9.5	14.5	11.0	19.6	15.1	22.5	17.8
U.S.	24.2	30.4	2.9	2.7	0.0	0.0	1.2	2.1	7.2	9.8	4.5	5.5
EU	6.7	9.0	6.3	8.6	13.6	12.0	64.3	66.9	16.2	17.7	28.1	28.9
Developing Asia	5.6	11.3	18.7	20.4	6.7	8.5	4.4	3.9	19.5	19.4	12.6	13.3
ANZC	1.7	1.4	11.2	10.9	26.4	24.4	2.1	2.3	7.9	8.1	8.5	8.8
ROW	3.7	6.0	25.3	25.4	4.6	5.3	13.0	12.6	27.3	26.2	18.9	18.4
Total C&D	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Industrial Manufactures												
	Developin LAC Asia			U.S.		EU		ROW		World		
	2010	2015	2010	2015	2010	2015	2010	2015	2010	2015	2t010	2015
Mexico	7.9	7.1	1.2	2.2	29.0	34.1	1.0	1.5	4.2	4.8	9.2	12.4
OLAC	17.9	11.4	0.2	0.2	0.7	0.8	0.4	0.2	0.3	0.2	1.7	1.2
U.S.	29.5	33.5	9.0	14.9	0.0	0.0	4.1	4.4	20.9	21.7	9.8	10.5
EU	12.7	12.9	32.3	31.8	14.1	17.2	75.8	73.5	27.1	26.8	39.0	36.8
Developing Asia	10.5	17.7	18.5	21.6	13.5	11.1	6.9	9.0	18.9	21.5	13.1	14.5
ROW	21.4	17.4	38.8	29.3	42.7	36.9	11.9	11.4	28.5	24.9	27.1	24.5
Total IM	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: IDB Integration and Trade Sector with data from BACI (CEPII).

TABLE A6 • BRAZIL — MARKET SHARE BY REGION, PRODUCT, AND PARTNER

(Percentage, 2010 and 2015)

Commodities and Derivatives												
	L	AC		oping sia	U	.S.	Е	U	RO	ow	World	
	2010	2015	2010	2015	2010	2015	2010	2015	2010	2015	2010	2015
Brazil	18.3	14.6	21.6	25.9	24.9	27.1	27.1	24.9	25.3	24.9	24.0	24.8
OLAC	33.9	25.6	13.5	16.6	33.2	31.4	16.6	15.8	14.0	16.1	16.0	17.4
U.S.	41.6	54.5	13.0	12.7	0.0	0.0	3.3	4.6	13.8	12.6	12.1	12.7
EU	0.9	0.7	1.3	1.4	3.4	2.4	29.7	32.8	5.8	5.9	8.9	9.3
Developing Asia	0.5	0.7	13.7	7.4	6.3	6.4	4.0	4.4	9.7	10.6	9.4	7.3
ANZC	2.0	1.2	25.9	25.9	25.0	26.5	3.7	3.6	16.1	14.7	16.7	16.6
ROW	2.8	2.7	11.0	10.1	7.2	6.3	15.7	13.9	15.2	15.2	12.9	11.8
Total C&D	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

	Industrial Manufactures														
	L	AC		loping sia	U	U.S.		EU		ow	W	orld			
	2010	2015	2010	2015	2010	2015	2010	2015	2010	2015	2010	2015			
Brazil	13.5	10.1	0.7	1.1	1.2	2.5	0.9	0.5	1.4	1.5	1.9	1.8			
OLAC	19.6	14.1	0.9	1.0	17.8	19.0	0.5	0.7	2.2	2.5	5.0	6.0			
U.S.	20.5	21.1	20.3	31.0	0.0	0.0	10.2	14.4	17.2	19.8	12.2	15.2			
EU	21.6	25.4	40.0	38.0	33.6	32.3	74.8	70.0	41.9	42.1	52.2	47.8			
Developing Asia	3.5	10.7	13.2	9.9	3.8	4.1	2.1	2.3	7.5	9.3	5.0	6.0			
ROW	21.3	18.6	24.9	19.0	43.6	42.1	11.5	12.2	29.8	24.9	23.7	23.3			
Total IM	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0			

Source: IDB Integration and Trade Sector with data from BACI (CEPII).

TABLE A7 • CENTRAL AMERICA — MARKET SHARE BY REGION, PRODUCT, AND PARTNER (Percentage, 2010 and 2015)

	Commodities and Derivatives													
	LAC			oping sia	U.	S.	E	U	RO	ow	World			
	2010	2015	2010	2015	2010	2015	2010	2015	2010	2015	2010	2015		
Central America	15.8	16.0	0.4	0.5	8.3	7.7	2.3	2.5	1.0	1.5	2.7	3.0		
OLAC	40.2	35.6	5.0	6.7	19.3	19.6	7.4	7.5	11.3	9.8	10.9	10.9		
U.S.	22.5	26.4	7.4	7.8	0.0	0.0	2.2	2.6	9.8	11.0	6.3	6.9		
EU	7.9	9.4	8.3	9.3	11.7	12.1	62.9	61.8	19.2	20.4	29.5	29.0		
Developing Asia	7.2	7.4	48.3	47.7	26.8	26.0	9.5	9.6	30.0	28.1	25.8	25.3		
ANZC	1.9	2.0	4.1	6.3	13.6	15.2	1.2	1.2	4.7	4.8	4.4	5.3		
ROW	4.5	3.2	26.5	21.8	20.2	19.5	14.5	14.7	24.0	24.5	20.3	19.5		
Total C&D	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		

	Industrial Manufactures													
	LAC		Developing Asia		U.	.S.	E	U	RO	ow	World			
	2010	2015	2010	2015	2010	2015	2010	2015	2010	2015	2010	2015		
Central America	3.7	3.9	0.6	0.2	4.5	3.6	0.4	0.3	0.4	0.3	1.3	1.0		
OLAC	9.8	8.1	0.3	0.7	16.5	13.5	0.6	0.6	1.5	1.3	3.7	3.3		
U.S.	21.8	23.1	7.6	7.3	0.0	0.0	6.6	8.1	11.2	11.0	7.9	8.3		
EU	11.4	12.4	7.8	8.6	15.4	14.8	58.2	55.7	26.0	22.6	31.0	28.6		
Developing Asia	25.8	35.4	38.5	41.5	37.7	45.3	16.4	18.9	34.1	41.0	28.8	34.2		
ROW	27.5	17.1	45.1	41.6	25.9	22.7	17.8	16.5	26.8	23.8	27.3	24.5		
Total IM	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		

Source: IDB Integration and Trade Sector with data from BACI (CEPII).

# TABLE A8 • AGRICULTURAL PRODUCTS EXPORTERS — MARKET SHARE BY REGION, PRODUCT, AND PARTNER

(Percentage, 2010 and 2015)

		(	Comm	odities	and D	erivat	ives					
	LAC			oping sia	U.	.S.	EU		RO	)W	World	
	2010	2015	2010	2015	2010	2015	2010	2015	2010	2015	2010	2015
Intensive in Agriculture	25.8	19.2	11.4	10.3	2.5	3.1	8.3	7.0	7.8	7.8	9.9	8.9
OLAC	20.7	20.4	25.2	32.9	17.9	19.0	15.6	14.8	13.0	13.8	17.5	20.5
U.S.	41.5	48.0	21.3	16.3	0.0	0.0	4.3	5.3	18.3	15.6	15.8	14.7
EU	4.2	4.6	6.0	6.0	17.8	17.4	59.5	60.4	17.2	18.2	25.7	24.3
Developing Asia	0.7	1.0	12.9	11.6	17.3	16.4	3.1	3.1	15.9	15.2	10.5	10.0
ANZC	6.5	5.9	14.3	13.7	41.1	40.8	3.1	2.7	12.3	13.3	11.2	11.9
ROW	0.6	0.9	8.9	9.0	3.3	3.2	6.0	6.7	15.5	16.1	9.4	9.6
Total C&D	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

	Industrial Manufactures														
	LAC		Developing Asia		U.	S.	EU		ROW		World				
	2010	2015	2010	2015	2010	2015	2010	2015	2010	2015	2010	2015			
Intensive in Agriculture	9.6	7.7	0.0	0.1	0.1	0.3	0.3	0.1	0.1	0.2	1.0	0.7			
OLAC	15.8	15.3	1.3	1.2	21.8	24.0	1.0	0.8	2.6	2.7	5.6	6.8			
U.S.	16.4	21.5	14.1	23.6	0.0	0.0	6.3	9.8	15.6	17.8	9.4	12.4			
EU	17.3	21.2	34.0	34.3	26.6	27.0	73.1	71.0	38.8	39.2	49.3	46.9			
Developing Asia	10.5	13.2	14.4	15.7	9.9	9.5	5.6	4.1	14.4	17.1	9.7	10.4			
ROW	30.5	21.0	36.2	25.0	41.7	39.2	13.7	14.1	28.4	23.0	25.0	22.8			
Total IM	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0			

Source: IDB Integration and Trade Sector with data from BACI (CEPII).

### TABLE A9 • MINERAL AND METAL EXPORTERS - MARKET SHARE BY REGION, PRODUCT, AND PARTNER

(Percentage, 2010 and 2015)

			Com	moditi	es and	Deriva	tives					
	LAC			loping sia	U	.s.	E	U	R	ow	World	
	2010	2015	2010	2015	2010	2015	2010	2015	2010	2015	2010	2015
Intensive in Minerals	52.4	44.0	18.6	20.5	20.1	18.5	14.2	10.5	18.3	17.0	18.4	17.5
OLAC	20.5	16.8	13.0	10.4	24.4	27.0	15.7	14.9	11.4	12.6	14.4	13.9
U.S.	16.3	22.3	2.7	2.8	0.0	0.0	2.7	3.4	4.7	6.2	3.4	4.1
EU	3.0	3.9	3.5	4.6	9.1	9.9	41.0	44.5	11.9	14.3	16.3	17.9
Developing Asia	3.5	7.8	15.5	9.7	10.0	9.9	5.5	5.3	11.9	10.2	11.1	8.6
ANZC	1.8	1.2	30.5	33.4	32.1	30.4	4.1	3.7	21.3	18.9	20.2	20.9
ROW	2.6	4.1	16.3	18.5	4.3	4.3	16.8	17.6	20.5	20.9	16.3	17.1
Total C&D	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

	Industrial Manufactures													
	LAC		Developing Asia		U	.S.	EU		ROW		World			
	2010	2015	2010	2015	2010	2015	2010	2015	2010	2015	2010	2015		
Intensive in Minerals	5.2	5.7	0.7	0.5	1.0	1.2	0.4	0.3	0.2	0.4	0.8	0.8		
OLAC	21.1	20.0	0.4	1.2	9.9	10.3	0.4	0.4	1.0	1.3	3.2	3.7		
U.S.	23.4	21.4	4.5	5.3	0.0	0.0	6.7	10.4	13.7	12.0	8.2	9.2		
EU	20.6	21.1	23.8	28.7	33.1	32.6	72.7	68.7	46.6	44.8	53.5	49.8		
Developing Asia	8.7	12.0	20.8	23.1	19.8	20.2	5.4	5.4	15.2	18.9	11.3	13.3		
ROW	21.0	19.8	49.8	41.3	36.2	35.8	14.5	14.9	23.3	22.5	23.0	23.1		
Total IM	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		

Source: IDB Integration and Trade Sector with data from BACI (CEPII). Note: The acronyms are defined in footnote 16.

# TABLE A10 • FUEL AND ENERGY EXPORTERS - MARKET SHARE BY REGION, PRODUCT, AND PARTNER

(Percentage, 2010 and 2015)

Commodities and Derivatives													
	LAC		LAC Developing Asia		U	U.S.		EU		ow	World		
	2010	2015	2010	2015	2010	2015	2010	2015	2010	2015	2010	2015	
Intensive in F&E	17.4	15.3	3.2	4.0	14.8	13.8	1.3	1.2	1.5	0.7	4.3	3.9	
OLAC	12.2	9.5	1.9	2.0	12.8	9.6	0.9	1.1	0.8	0.8	3.2	2.6	
U.S.	33.6	49.6	1.3	1.3	0.0	0.0	1.9	2.6	3.1	6.5	3.3	5.8	
RGAC	15.0	11.8	46.6	45.7	58.3	62.4	42.0	36.7	58.1	41.3	49.4	41.5	
ROW	21.8	13.7	47.0	46.9	14.2	14.3	53.9	58.4	36.5	50.6	39.8	46.2	
Total C&D	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

	Industrial Manufactures													
	LAC			Developing Asia		U.S.		EU		OW	World			
	2010	2015	2010	2015	2010	2015	2010	2015	2010	2015	2010	2015		
Intensive in F&E	4.2	3.8	0.1	0.0	1.6	1.1	0.1	0.2	0.1	0.1	0.6	0.6		
OLAC	26.3	21.5	1.1	1.1	14.7	14.3	0.8	0.7	2.3	2.5	5.0	5.1		
U.S.	18.0	17.9	9.6	11.0	0.0	0.0	7.2	9.8	13.7	13.8	8.9	9.7		
EU	16.6	19.0	23.1	23.1	26.5	29.4	71.6	68.9	35.8	35.4	46.6	43.8		
Developing Asia	14.0	19.8	23.1	27.1	13.4	11.9	6.6	5.7	16.8	20.4	12.6	14.3		
ROW	20.9	18.0	43.0	37.6	43.9	43.3	13.6	14.7	31.2	27.8	26.3	26.5		
Total IM	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		

Source: IDB Integration and Trade Sector with data from BACI (CEPII).

### Methodological Annex 1 Trade Estimates

This annex explains the adjustments made to the world trade series published by the Netherlands Bureau for Economic Policy Analysis (CPB).

### **CPB World Trade Monitor**

The CPB compiles monthly series on trade flows by country utilizing sources that publish information online. Once collected, the data are standardized in terms of frequency and currency (dollars). This allows for the construction of consistent series of values, prices, and volumes. Additionally, different techniques are used to estimate the missing observations at the country level for the most recent months. For several countries, secondary sources are used to complement primary sources. The data by country are aggregated regionally, which requires completing missing data for some countries using regional growth rates. The CPB World Trade Monitor covers 96 countries and the Sub-Saharan Africa region, which is treated as a single economy. The global coverage is nearly 99%. The series are generally obtained seasonally adjusted, and when not, the adjustment is made. 65

For Latin America, the following countries are included in the sample: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, Guatemala, Mexico, Paraguay, Peru, and Uruguay.

### Adjustments to the trade estimates for Latin America and the Caribbean

For regional exports, the CPB provides estimates at current and constant prices based on a sample that does not include El Salvador, Honduras, Nicaragua, Panama, and Venezuela. Since the composition of this sample has a significant impact on the estimates, it has been replaced by series obtained according to the methods explained in Methodological Annex 3.

<sup>65</sup> For more detail, see the CPB Ebregt (2016) publication.

# Methodological Annex 2 Estimation of the Volume of World Exports

Table 1 of Chapter 1 presents the year-on-year growth rates of world export volumes for the first half of 2017, disaggregated geographically in bilateral flows among Africa, Latin America and the Caribbean, Asia, Europe, and North America. The composition of the regions follows the location of countries by continent, with the countries of the Middle East included in the Africa region.

Monthly bilateral exports at current prices were obtained from the Direction of Trade Statistics (DOTS) of the IMF. The deflation of the series was undertaken using official and estimated price indices, as follows:

- Exports from Europe to other regions/Exports of other regions to Europe: flows
  deflated using price indices from EuroStat for the EU, disaggregated at the 1-digit
  SITC level. The indices were weighted by the European export/import basket with
  each particular region.
- Exports of North America to other regions/Exports of other regions to North America: flows deflated using the indices reported by the U.S. as published by the BLS, disaggregated at the 2-digit level of the Harmonized System, and weighted by the export/import basket of the U.S. and Canada with each region. Exports to North America were deflated using the indices published by the BLS at the partner level. For Asia, the aggregate price index for the Pacific Basin was used (China, Japan, Australia, Brunei, Indonesia, Macao, Malaysia, New Zealand, Papua New Guinea, the Philippines, Hong Kong, Singapore, Republic of Korea, and Taiwan); for Africa, the Middle East index was used (Bahrain, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Syria, United Arab Emirates, and Yemen). Exports from LAC were deflated using the index published for imports from the region, and for North America the index published for imports originating in Canada was used.
- Exports from Asia to the other regions/Exports of the other regions to Asia: flows
  deflated using a simple average of the manufacturing price index published by
  the WTO for Japan, the Republic of Korea, Taiwan, and Singapore. Exports to

- LAC were deflated with the import price index of total LAC imports estimated with data from 8 countries (Argentina, Brazil, Chile, Colombia, El Salvador, Mexico, Peru, and Uruguay).
- Exports from LAC to other regions/Exports of other regions to LAC: flows deflated with the LAC export price index estimated with data from 10 countries (Argentina, Brazil, Chile, Colombia, El Salvador, Mexico, Paraguay, Peru, Uruguay, and Venezuela). The index for exports to Asia was obtained from the difference in the total estimated change in prices and the change in prices of the remaining regions.
- Exports from Africa to the other regions/Exports of the other regions to Africa: flows deflated with the price index for total exports from LAC. Exports to Asia were deflated using the same price index estimated for LAC's exports to Asia.

### Methodological Annex 3 Indices of Price, Volume and Terms of Trade

This annex summarizes the methodology used to estimate the price and volume indices of exports and imports, and the terms of trade indices used in Chapters 1 and 2 in aggregate form.

### **Formulas**

### Price indices

The price indices correspond to Laspeyres estimates for imports and exports:

$$P_t = \frac{\sum_i p_t^i * q_0^i}{\sum_i p_0^i * q_0^i}$$

Where

$$p_t^i = \frac{v_t^i}{q_t^i}$$
,

the unit value of item i at time t,

- Value,  $V_t^i$ , (thousands of US\$)
- Volume,  $Q_t^i$ , (thousands of kg)

The Laspeyres price index compares the value of a basket of products in the base year with the value of the same basket in period t. When , the basket costs the same as in the base year.

#### Volume Indices

The Paasche volume indices are estimated for imports and exports:

$$Q_t = \frac{\sum_{i} p_t^i * q_t^i}{\sum_{i} p_t^i * q_0^i}$$

Where

$$p_t^i = \frac{V_t^i}{Q_t^i}$$
,

the unit value of item i at time t,

- Value,  $V'_t$ , (thousands of US\$)
- Volume,  $q_t^i$ , (thousands of kg)

The Paasche volume index compares the value of a basket of goods in period t valued at the prices of period t (current), against the value of a basket in the base year valued at the prices of period t. When  $Q_t = 1$ , the current basket is composed of the same quantities as in the base year.

#### Terms of Trade

Based on the following formula:

$$TI_t = \frac{P_{x,t}}{P_{m,t}} * 100$$

Where  $p_{x,t}$  and  $p_{m,t}$  correspond, respectively, to the export and import price indices of the country in year t.

### Specific methodologies and data sources

To estimate the price and volume indices, two methodologies were employed according to the availability and quality of the disaggregated data. The first made use of the primary microdata available in INTrade/DataINTAL, used to estimate import and export deflators for the countries of South America and the imports of Central America. The second used deflators elaborated by the Bureau of Labor Statistics (BLS) and applied to the exports of Mexico and Central America. The indicators corresponding to imports of Mexico come from the series published by the Bank of Mexico (Banxico). All data were homogenized according to the 1996 revision of the Harmonized System (HS).

### Methodology 1: Trade flows of South America and imports of Central American countries

For exports and imports of Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Paraguay, Peru, and Uruguay, and, and for imports of Costa Rica, El Salvador, Guatemala, and Venezuela, Laspeyres price indices were calculated at the subheading level of the HS (6 digits) with 2005 as the base year. The calculations were based on data at current values and physical volumes reported by national sources to INTrade/DataINTAL as of July of 2017, and from COMTRADE for imports from Venezuela, which were obtained according to the value of exports reported by other countries to Venezuela.

### Methodology 2: Exports of Mexico and Central American countries

This group includes Costa Rica, El Salvador, Guatemala, and Mexico. Problems detected in the data, particularly in the volume data for manufactures, made it advisable to proceed with estimates at constant prices at the chapter level of the HS (2 digits), employing the price indices of U.S imports obtained from the BLS. The disaggregation is composed of 35 chapters of the HS: 02, 03, 07, 08, 09, 20, 22, 27, 28, 29, 30, 39, 40, 42, 48, 61, 62, 63, 64, 69, 70, 72, 73, 74, 76, 82, 83, 84, 85, 87, 90, 91, 94, 95, 96. Calculations were computed using the current values data reported by official national sources to INTrade/DataINTAL as of July 2017.

### Methodology 3: Venezuela's exports

Price indices were estimated using OPEC data regarding Merey crude oil, and from the same source, volume indices were estimated taking primary and secondary data on production volume.

#### **Additional Notes**

At the time of publication complete data were not available for Caribbean countries.

Indicators for the group of countries presented in Figures 7 and 8 (Chapter 1) and 12 (Chapter 2) were obtained from the weighted averages of the price and volume indices of the trade flows corresponding to each country. The relative values of exports or imports of the countries within each group in each year were used as weights.

Data for the most recent years are subject to revision by the respective sources and do not necessarily coincide with figures updated and published subsequently. Therefore, these estimates should be considered preliminary.

Price estimates for the first semester of 2017 were computed based on preliminary data on the export and import price indices published by national sources in Argentina, Brazil, Chile, Colombia, El Salvador, Mexico, Paraguay, Peru, Uruguay, and IDB estimates for Venezuela.

# Methodological Annex 4 Statistics for Goods and Services Exports

The figures for 2014, 2015, 2016, and 2017 provided in Tables 2 and 3 (Chapter 2) are preliminary and subject to change by the national sources.

#### Table 2

Goods exports are expressed in Free on Board (FOB) values. For Venezuela, the total was estimated based on price and volume data reported by the OPEC. Data for Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, and the Dominican Republic include STR. Data for Panama refer only to national exports and imports. The growth of goods exports through June 2017 is an estimate of the year-on-year change based on monthly data through that month.

### Table 3

The definition of services exports corresponds to the sixth version of the Manual of Balance of Payments. For all years, the series exclude construction, government, manufacturing, maintenance and repair of goods services. The services data for Barbados are estimated based on figures from the WTO. The value of services exports for LAC for the first quarter of 2017 is an estimate that excludes some countries for which no data were available at the time of publication.

## Methodological Annex 5 Classification of Trade Flows by Category

The classification of products is based on the categories defined by the Institute of Statistics and Census (INDEC) of Argentina, but extends them to more accurately describe the degree of processing, particularly of commodities and their derivatives. To the categories in the INDEC classification—primary products (PP), agricultural manufactures (AM), industrial manufactures (IM), and fuels and energy (F&E)—the category of mineral manufactures (MM) was added, incorporating products that, in the INDEC version, were included in the IM category, but correspond to derivatives of mineral products in the initial stages of processing, and whose prices are still highly influenced by the prices of the respective primary products. Furthermore, the category of PP was disaggregated according to origin: agricultural primary (AP), and mineral primary (MP). To illustrate the use of this classification, below are examples of some typical cases for the region, using the HS92 subheadings.

Subheading	Category	Subheading	Category	Subheading	Category	
Soybeans and Derivatives		Coffee		Wood, Cardboard, Paper, and Furnitu		
120100	AP	090111	AP	380400	AM	
120810	AM	090112	AM	380700	AM	
150710	AM	090121	AM	440110	AP	
150790	AM	090122	AM	440121	AP	
210310	AM	090130	AP	440310	AP	
230400	AM	090140	AM	440320	AP	
Fish, Crustacea	ns, and Mollusks	Viticulture		440910	AM	
030613	AP	200920	AM	440910	AM	
030623	AP	200960	AM	440920	AM	
160520	AM	080540	AP	441010	AM	
Hydrocarbons	and Electricity	080610	AP	441090	AM	
270900	F&E	080620	AP	Iron		
271000	F&E	Сор	per	250200	MP	
271111	F&E	260300	PP	253040	MP	
271112	F&E	262030	MM	260111	MP	
271113	F&E	282550	IM	260112	MP	
271114	F&E	283325	IM	260120	MM	
271119	F&E	284810	IM	720110	MM	
271121	F&E	740110	MM	720120	MM	
271129	F&E	740120	MM	720130	MM	
271210	F&E	740200	MM	720299	MM	
271220	F&E	740311	MM	722820	MM	
271290	F&E	Choco	olate	730110	MM	
271311	F&E	180100	AP	730120	MM	
271312	F&E	180200	AP	730240	MM	
271320	F&E	180310	AM	730290	MM	
271390	F&E	Salmon		730300	MM	
271410	F&E	030541	AM	730410	MM	
271490	F&E	030219	AP			
271500	F&E	030310	AP			
271600	F&E	030322	AP			
		030329	AP			

# Methodological Annex 6 Disaggregation of the Growth Rate of Exports

This Annex describes the construction of the indicators presented in Chapter 3 and the data sources used in the estimation.

### Disaggregation of the export growth rate

The method used to disaggregate the export growth rate is known as shift-share. Specifically, the rate can be decomposed into three composition effects (global, product, and partner) and a performance effect (competitiveness),<sup>66</sup> that is,

 $\Delta$ exports =  $\Delta$ global +  $\Delta$ product +  $\Delta$ partner +  $\Delta$ competitiveness.

As a starting point, exports x of country i in year t can be disaggregated as the sum of exports to each destination j of each good k,

$$x_i^t = \sum_i \sum_k x_{ijk}^t,$$

and the growth rate of exports between the periods t and t+1 for country i, g, is expressed as

$$g_i = \frac{x_i^{t+1}}{x_i^t} - 1.$$

<sup>&</sup>lt;sup>66</sup> The shift-share method used in this analysis is similar to the one described in Piezas-Jerbi and Nee (2009). One of the limitations of this methodology is that the magnitudes of the product and partner effects depend on the order in which they are subtracted from the growth of world trade. Thus, instead of first extracting the product effect and then the partner effect, this can be done in reverse. However, the magnitudes of the global and competitiveness effects remain constant. Given that the bulk of the analysis in this report is centered on the competitiveness effect, this limitation is less relevant.

For simplicity, the time superscript is omitted for the growth rate. The difference between exports in t and t+1 for country i, after algebraic manipulation, can be disaggregated and represented as follows:

$$x_i^{t+1} - x_i^t = gx_i^t + \sum_k (g_k - g)x_{ik}^t + \sum_j \sum_k (g_{jk} - g_k)x_{ijk}^t + \sum_j \sum_k (x_{ijk}^{t+1} - x_{ijk}^t - g_{ijk}x_{ijk}^t),$$

where g represents the growth rate of global exports,  $g_k$  the growth rate of exports of good k and  $g_{jk}$  the growth rate of that good to the specific market j. The first term on the right side of the equation corresponds to the global effect, that is, how the exports of country i would have changed if they had grown at the same rate as the global average. The second component represents the product effect, given by the difference between the growth rate of exports of product k and global growth, which is linked to the product composition of the export basket. The third component is the partner effect, representing the difference between the growth of exports of product k in market j and the mean growth of exports of k, which is linked to the distribution of exports across destinations. The last term is a residual, and can be interpreted as the difference between growth of exports of country i, equivalent to the basket of exported products to each trade partner, and the growth of global exports of those products in those specific markets. If the country exports more or less than the increase in global demand, its competitiveness is higher or lower.

Dividing both sides of the previous equation by  $x_i^t$  produces the disaggregation of the export growth rate into the global, product, partner, and competitiveness effects. Note that the competitiveness effect can also be disaggregated into product and partner components.

Additionally, the market share of country i is measured as the fraction that its exports represent in global exports, that is:

$$s_i^t = \frac{x_i^t}{\sum_i x_i^t}.$$

If the exports of country i grow at a rate greater than that of global exports, the country increases its market share. Note that the market share in the market for a particular good k, in partner country j, or a market share for a product-partner combination, can also be calculated in a similar fashion.

#### Sources and treatment of data

#### **Databases**

The exports used for the decomposition come from the International Trade Database at the Product-Level (BACI) of the Center for Forecasting Studies and International Information (CEPII, both acronyms based on their names in French). The BACI provides the value of trade in current dollars by origin and destination, disaggregated at 6 digits of the Harmonized System (HS 1996). The HS subheadings 7108.12 and 7108.13, corresponding to gold, have been removed from the database, due to the presence of reexports related to financial operations, especially of Great Britain, Switzerland, and Hong Kong. These flows cannot be separated from trade in goods and, thus, distort the indicators. Intra-EU trade is considered part of global trade, while the flows among Macao, Hong Kong, and China are consolidated.

To identify the markets and suppliers used in the analysis of changes in market share (Statistical Annexes 1 and 2) the export supply of LAC countries is restricted in two aspects. First, exports of fuels and energy are eliminated, except for the group specialized in that category. Second, for each group a "core basket" is defined as a subset that includes only the product flows that represent at least 1% of exports.

### Classifications

*Broad categories*: Agricultural Primary Products (AP), Agricultural Manufactures (AM), Mineral Primary Products (MP), Mineral Manufactures (MM), Fuels and Energy (F&E), and Industrial Manufactures (IM). In the analysis of market shares the first five categories are aggregated into one, called Commodities and their Derivatives (C&D), detailed in Annex 5.

Groups of LAC countries: Central America (Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Panama, and the Dominican Republic), the Caribbean (Bahamas, Belize, Barbados, Guyana, Haiti, Jamaica, and Suriname), countries with exports intensive in agricultural products (Argentina, Paraguay, and Uruguay), intensive in fuels and energy (Bolivia, Colombia, Ecuador, Venezuela, and Trinidad and Tobago), and intensive in minerals and metals (Chile and Peru).

*Principal export markets*: LAC, U.S., EU, and Developing Asia (in short Asia), which includes China, India, and ASEAN.

Principal Suppliers: a) Global market share (Figure 20): LAC, U.S., EU, Asia, ANZC (Australia, New Zealand, and Canada, suppliers of agricultural and/or mining products), RGA (Russia, Gulf oil countries, and Africa), Rest of the World (ROW); b) Market share by country or group (Statistical Annexes 1 and 2): OLAC (Other countries of Latin America and the Caribbean) includes countries of the region other than those under analysis, U.S., EU, Asia, ANZC, RGAC (RGA and Canada). Due to the difficulties of identifying a core basket without re-exports for Caribbean countries, the analysis for this group is not reported.

### Methodological Annex 7 International Regulatory Framework on E-commerce

This annex summarizes the methodology employed in the benchmarking analysis of e-commerce provisions. The goal of the analysis is to identify the presence of e-commerce chapters or specific e-commerce provisions in a selected group of PTAs subscribed by LAC countries, including both intraregional and extraregional agreements, using as a reference 12 provisions from Chapter 14 of the Trans-Pacific Partnership (TPP) agreement.

### **Selection of Preferential Trade Agreements**

The analyzed PTAs are those in force as of August 1, 2017, notified to the WTO and classified as free trade areas (FTAs). Based on the criteria, 29 PTAs were selected, of which 16 were intraregional and 13 extraregional. The analysis was restricted to the text of each PTA, available at INTrade.

### Gap analysis

To calculate the gap between actual and potential e-commerce commitments, a matrix m of bilateral relationships was constructed, including p countries, of which r are from the region, and e are extraregional, p = e + r.

		Intra								Extra	
		1	2	3	4	5	6	7	8	9	10
Intra	1	Х									
	2	Х	Х			$B_r$					
	3	Х	Х	Х		,				$B_{\mathit{re}}$	
	4	Х	Х	Х	Х						
	5	Х	Х	Х	Х	Х					
	6	Х	Х	Х	Х	Х	Х				
	7	Х	Х	Х	Х	Х	Х	Х			$B_{e}$
Extra	8	Х	Х	Х	Х	Х	Х	Х	Х		e
	9	Х	Х	Х	Х	Х	Х	Х	Х	Х	
	10	Х	Х	Х	Χ	Х	Х	Х	Х	Х	Х

An example of m with p = 10, r = 7, and e = 3 is as follows:

The total number of bilateral relationships  $Bt = \frac{1}{2}p(p-1)$  can be decomposed into three groups: intraregional bilateral relationships (Br), corresponding to relationships between countries in the region, LAC-extraregional relationships (Bre), corresponding to relationships between LAC countries and the 3 selected extraregional partners, and bilateral relationships among extraregional countries (Be). These aggregates correspond, respectively, to the upper stepped triangle (dark blue), the rectangle (light blue), and the lower stepped triangle (black).

Therefore:

$$Bt = Br + Bre + Be$$

Where  $Br = \frac{1}{2}r(r-1)$ , Bre = re, and  $Be = \frac{1}{2}e(e-1)$ . In these calculations, only commitments assumed in the bilateral relationships involving LAC countries were considered. Thus, the number of bilateral relationships considered is a subset k of the total t:

$$Bk = Bt - Be = Br + Bre$$

If, in this limited sample, the countries of the region agreed on the 12 analyzed provisions of the TPP, they would assume a total of C = 12\*Bk commitments. This value corresponds to the number of potential commitments. The number of actual commitments are those found in the PTAs analyzed, which were assigned to the respective bilateral relationships among the participating countries.

The Trade and Integration Monitor 2017 analyzes the current trade recovery and assesses the capacity of the region to compete in global markets. It argues that, having overcome the longest trade contraction in recent history, Latin American and Caribbean countries face a trade outlook substantially less favorable than the one prevailing before the crisis. The end of the commodity price super cycle signals the urgent need for policies aimed at boosting competitiveness and at taking advantage of the opportunities provided by disruptive technologies such as e-commerce.

