2024 TRADE AND INTEGRATION MONITOR

BUCKING THE TREND

THE POTENTIAL OF KNOWLEDGE-BASED SERVICES

Coordinated by
Paolo Giordano

November 2024

IDB

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The Trade and Integration Monitor is the outcome of a research effort of the IDB undertaken by the Integration and Trade Sector (INT), under the leadership of Fabrizio Opertti, Sector Manager, and the technical supervision of Christian Volpe Martincus, Sector Economic Advisor.

This edition was coordinated by Paolo Giordano, INT Principal Economist, and written in collaboration with Rosario Campos, Romina Gayá and Kathia Michalczewsky, IDB consultants.

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Foreword

Following the post-Covid recovery, world trade has returned to the sluggish growth path it has followed since the Global Financial Crisis. However, new dynamics are now shaping the global landscape, while other factors already present before the pandemic have intensified. Geopolitical conflicts are multiplying, industrial policies and protectionism are reemerging, and climate change and trade measures to mitigate it are adding to current international tensions. Against this backdrop, trade in knowledge-based services has not only proved resilient but has experienced pronounced growth. Its role in global and regional trade is no doubt set to expand further.

In this external environment, exports of goods from Latin America and the Caribbean have rebounded, outperforming global trade. Growth has been driven primarily by an increase in export volumes, while prices have stabilized. However, the most recent indicators for trade in goods suggest the trend will remain highly volatile, with no clear signs of a sustained recovery in the coming months. In contrast, services exports have continued to trend upward, fueled by tourism-related travel services and knowledge-based services.

The 2024 *Trade and Integration Monitor* analyzes how Latin America and the Caribbean are navigating the new global landscape, comparing the region's performance to the rest of the world and examining the trade performance by country and integration bloc. This edition includes a medium-term analysis of trade in knowledge-based services and the internal and external factors shaping competitiveness in global markets. This is the 12th edition of an annual report published by the Integration and Trade Sector at the Inter-American Development Bank to track Latin America and the Caribbean's changing role in global trade.

The publication concludes that, over the past decade, the region's exports of knowledge-based services have been more dynamic than those of goods and other services. Nonetheless, this growth has lagged behind the global pace, and the sector largely consists of relatively unsophisticated business services that are vulnerable to disruptive transformations like artificial intelligence. An empirical analysis of the key drivers for trade performance points to the crucial role of human capital readiness and regulatory quality, followed by connectivity infrastructure, trade and double taxation agreements, and financial instruments that are tailored to the sector's specific needs.

In many of these areas, Latin America and the Caribbean are still trailing behind the rest of the world. To catch up, the region needs to improve its knowledge infrastructure and implement a new generation of evidence-based policies to support the services sector to integrate better and more thoroughly into the global economy.

We hope that this edition of the *Trade and Integration Monitor* will provide stakeholders across Latin America and the Caribbean with insights they can use to identify, design, and implement policies to boost internal productivity and external competitiveness. Knowledge-based services have the potential to fire up a new phase in export-driven growth, offering the region the chance to buck the trend toward slower global trade.

Fabrizio Opertti
Manager, Integration and Trade Sector

List of Abbreviations

a.a.	annual average
AC	Andean Community
AI	artificial intelligence
ASEAN	Association of Southeast Asian Nations
BaTiS	Balanced Trade in Services dataset
BLS	US Bureau of Labor Statistics
BPO	business process outsourcing
CADR	Central America and the Dominican Republic
CARICOM	Caribbean Community
CIF	cost, insurance, and freight
CPB	Netherlands Bureau for Economic Policy Analysis
CUIPs	charges for the use of intellectual property
DANE	National Administrative Statistics Department, Colombia
DSTRI	Digital Services Trade Restrictiveness Index
DTT	double taxation treaty
EBOPS	Extended Balance of Payments Services Classification
ECFCC	Central American Trade Facilitation and Competitiveness Strategy with an Emphasis on Coordinated Border Management
EF EPI	Education First English Proficiency Index
EFTA	European Free Trade Association
FATS	Foreign Affiliate Trade Statistics
FOB	free on board
FTA	free trade agreement
GATS	General Agreement on Trade in Services
GDP	gross domestic product
ICO	International Coffee Organization
ICTD	International Centre for Tax and Development
ICTs	information and communications technologies
IDB	Inter-American Development Bank
IDBA	Broadband Development Index
IMF	International Monetary Fund
INDEC	National Institute of Statistics and Censuses, Argentina
INT	Integration and Trade Sector, IDB
ITU	International Telecommunication Union

KBSs	knowledge-based services
Kg	kilograms
LA	Latin America
LAC	Latin America and the Caribbean
LAIA	Latin American Integration Association
LATLI	Latin American Trade Leading Index
LATNI	Latin American Trade Nowcasting Index
MERCOSUR	Southern Common Market
MSITS	Manual on Statistics of International Trade in Services
n.d.	no data
NBS	National Bureau of Statistics, China
NCT	national customs territory
OBSs	other business services
OECD	Organization for Economic Co-operation and Development
OPEC	Organization of Petroleum Exporting Countries
OPEC+	Organization of Petroleum Exporting Countries and Associated States
p.p.	percentage points
PA	Pacific Alliance
PCRSs	personal, cultural, and recreational services
PMI	Purchasing Managers' Index
PSA	partial scope agreement
R&D	research and development
SICA	Central American Integration System
SIECA	Secretariat for Central American Economic Integration
SNA	National Customs Service, Chile
STEM	science, technology, engineering, and mathematics
STRI	Services Trade Restrictiveness Index
STRs	special trade regimes
TCISs	telecommunications, computer, and information services
TiVA	Trade in Value Added database
UNCTAD	United Nations Conference on Trade and Development
US	United States
USITC	US International Trade Commission
WTO	World Trade Organization

Executive Summary

The 2024 edition of the *Trade and Integration Monitor* examines the factors underlying the stabilization of global trade and the recovery in exports from Latin America and the Caribbean (LAC). The report finds that although the global trade outlook remains highly uncertain amid a return to the sluggish growth that preceded the pandemic, the region outperformed the global average, but signs of a solid recovery have yet to appear. With knowledge-based services gaining prominence due to their rapid global growth and positive spillover effects, closing the region's competitiveness gap and overcoming barriers to foreign markets is a pressing policy priority for LAC countries.

LAC goods exports recovered, driven by higher volumes against a backdrop of stabilizing prices, while services exports continued to grow. However, forecasts suggest that this trend toward recovery has yet to settle into sustainable growth. Over 2024, the global outlook has begun to show increasing signs of a downturn.

- The value of LAC's goods exports grew by 3.2% year-on-year in the first half of 2024 after contracting by 1.6% in 2023.
- Improvements to the region's performance owed to the stabilization of prices (–0.5%) and a 3.3% increase in export volumes, particularly from South America.
- The region's terms of trade continued to improve (2.7%) as import prices fell more than export prices.
- Services exports from LAC slowed slightly to 9.5% year-on-year in the first quarter of 2024 compared to the 12.2% average for 2023 but still outpaced the global average of 7.1%.
- The latest leading indicators do not yet confirm a consolidation of the recovery phase in LAC exports.
- The outlook is one of significant uncertainty and the balance of risks is tilted to the downside, mainly due to geopolitical tensions, industrial policies and rising protectionism, extreme weather events, and macroeconomic conditions that remain challenging, which may constrain demand and heighten the volatility of international prices.

The recovery in goods exports was fueled mainly by extraregional demand, while trade with partners within the region continued to decline and the intraregional trade coefficient weakened. A multidimensional synthetic indicator reveals a widespread decline in economic integration at both the global and regional levels.

- In the first half of 2024, growth in extraregional exports (4.1%) was partially offset by the drop in intraregional sales (–4.5%).
- Exports to the United States and China continued to grow, although demand from China cooled, and nontraditional markets in Asia and the Middle East came to play a more important role.
- Extraregional trade rebounded in all LAC integration blocs except Central America and the Dominican Republic, which remained in a downturn.
- Trade flows to LAC and within each integration scheme contracted in all the region's blocs except the Andean Community, whose trade with other LAC economies increased, and Central America and the Dominican Republic, which saw a modest rise in intrabloc trade.
- A limited sample of Caribbean nations suggests that the bloc's overall exports recovered, but performances varied widely across economies.
- The share of intraregional trade flows in total LAC trade dropped to 13.7% in the first half of 2024, down 0.9 percentage points from 2023.
- The aggregate indicator for economic integration showed a decline worldwide and a more pronounced drop in LAC.
- Countries in the region have made progress on extraregional negotiations, while their internal agendas have prioritized trade, environmental, digital, transportation, and gender issues.

In the aftermath of the pandemic, the resilience of global trade in services—particularly knowledge-based services (KBSs)—is evidence of the sector's growing relevance in the current phase of globalization. The region's KBS exports were less dynamic than in the rest of the world and remain concentrated in relatively less sophisticated sectors that are more susceptible to disruption by artificial intelligence. To close this gap, LAC must address several competitiveness lags and overcome significant regulatory barriers that hinder access to external markets, particularly within the region.

- Global KBS exports grew at an average annual (a.a.) rate of 7.0% between 2013 and 2023, significantly outpacing global trade in goods and services, which grew at 2.3% and 4.9% per year, respectively.

- Global trade in KBSs has been driven by advances in information and communication technologies, the "servitization" of production, and regulatory changes, including reforms to competition policy, sector-specific support policies, and international trade agreements.
- Over the past decade, exports of KBSs from LAC have grown at 4.7% a.a., faster than exports of goods (2.9% a.a.) and total services (4.3% a.a.), but slower than the global average for KBSs.
- The outlook for KBS exports varies widely across LAC countries. The leading exporters are Brazil and Mexico, followed by Costa Rica, Argentina, and Colombia. In Costa Rica and Uruguay, the sector is particularly large relative to the size of the economies.
- The United States remains the primary destination for LAC's KBS exports, followed by Europe, whereas the potential of the regional market remains largely untapped.
- Business services account for over two-thirds of LAC's KBS exports. Telecommunications, computer, and information services are the most dynamic segment.
- The region's KBS exports are concentrated in medium to low research-and-development-intensive sectors. In the medium term, risks to LAC's supply profile include rising costs and high exposure to technological disruptions like automation and artificial intelligence.
- The region is facing significant market access barriers in key export destinations. While restrictions to enter the US market remain relatively low, those to other LAC markets are higher.
- An empirical analysis of the competitiveness of LAC's KBS exports underscores the importance of educational curricula and regulatory quality. Other critical factors include digital infrastructure, provisions for services in trade agreements, the signing of double taxation treaties, and sector-specific financial instruments.

1 The Stabilization of Global Trade

The decline in world trade began to ease in the first half of 2024 after contracting more than expected in 2023. The value of global trade went from a 5.0% drop in 2023 to a more moderate 0.5% year-on-year decline in the first half of 2024, driven by a smaller decrease in prices and a recovery in volumes. Amid growing fragmentation in global trade and heightened volatility in commodity markets, the value of Latin America's exports rebounded by 2.9% in the first half of 2024 after falling by 1.3% in 2023, outperforming the global average. However, this stabilization remains fragile due to emerging signs of a global downturn in the second half of 2024.

The normalization of world trade

The decline in global trade eased.

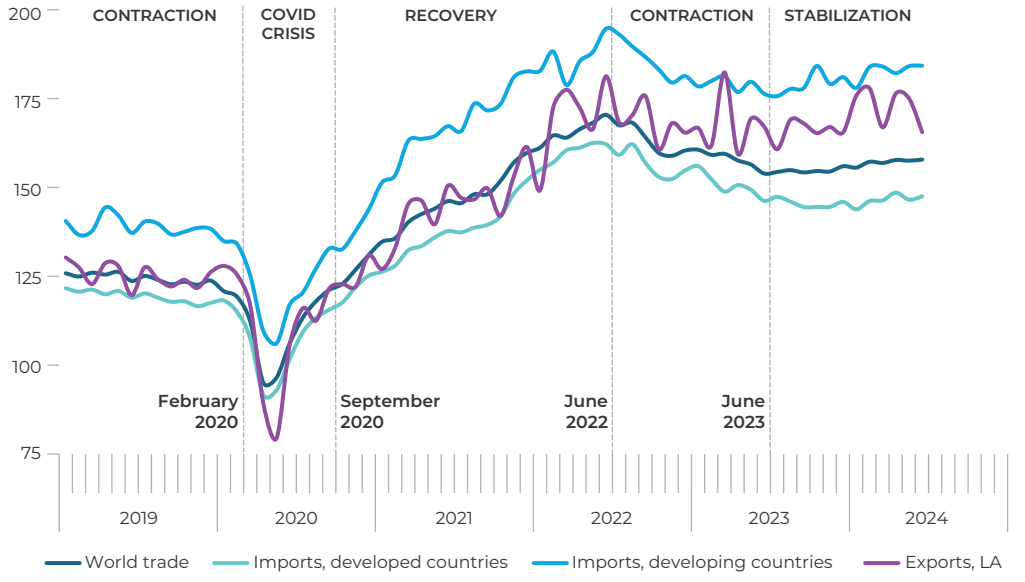
As inflation eased and the prospects for economic growth improved, the downward trend in global trade bottomed out in June 2023. The value of world trade fell by 0.5% year-on-year in the first half of 2024 after falling, more than expected, 5.0% in 2023[1] (Figures 1 and 2). From a long-term perspective, global trade has stabilized above pre-Covid levels following the shock of 2020 and the waning of the recovery cycle in mid-2022. However, growth remains relatively weak, in line with the "new normal" observed since the 2008 global financial crisis.[2] Between 1999 and 2008, the value of global trade grew at an average annual rate of 11.8%, but this slowed to just 2.0% between 2012 and 2021.[3]

[1] Throughout this report, growth is reported as year-on-year rates unless otherwise stated. For ease of reading, the term "year-on-year" has been omitted unless clarification is needed to avoid misinterpretation.

[2] For an analysis of the period after the 2008 global financial crisis, see Giordano and Ramos Martínez (2014, 2015, and 2016).

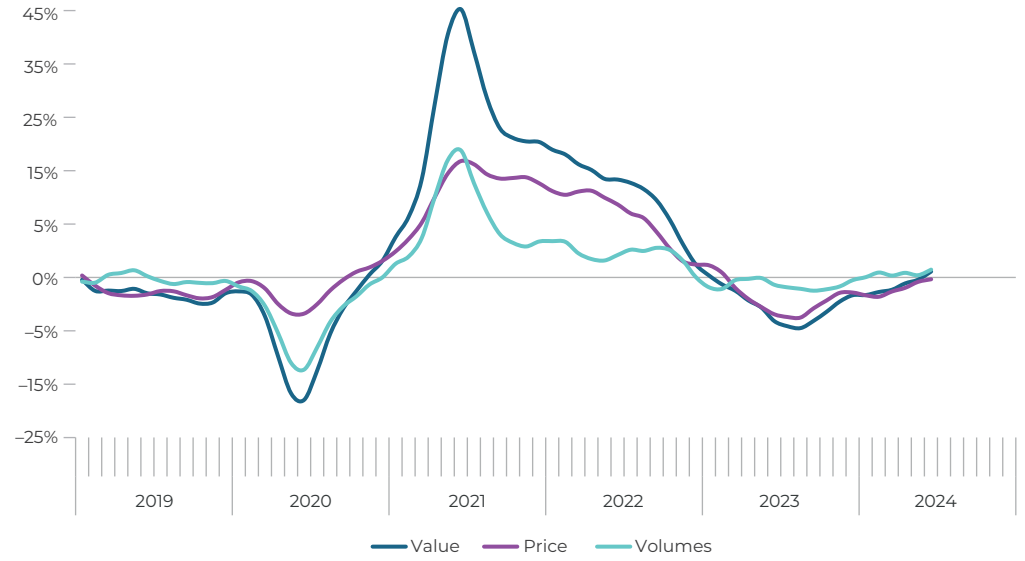
[3] Giordano et al. (2022).

FIGURE 1 • VALUE OF WORLD TRADE IN GOODS
(Index 2010=100, 2019–2024)



Source: IDB Integration and Trade Sector based on the Netherlands Bureau of Economic Policy Analysis (CPB) and authors' estimations.
Note: The value of global trade is the average of the seasonally adjusted series of global imports and exports. The value of exports from Latin America (LA) was calculated by the authors and does not include the Caribbean (see Methodological Annex 1).

FIGURE 2 • TREND IN WORLD TRADE IN GOODS
(Quarterly moving average of the year-on-year growth rate, percentage, 2019–2024)



Source: IDB Integration and Trade Sector based on CPB.
Note: The value and volumes figures are the average of global imports and exports.

Trade was decoupled from economic growth.

Inflationary pressures, contractionary monetary policies, and trade tensions impacted global demand in 2023.[4] The volume of global trade fell by 1.1% in 2023, despite a 3.3% increase in global GDP. This divergence of economic growth and real global trade flows was unusual and owed partly to the normalization that followed the post-Covid rebound in 2021–2022, driven by pent-up demand for industrial manufactures.[5] Global GDP is expected to grow by 3.2% in 2024,[6] supported by lower interest rates. However, risks to global demand remain, linked to geopolitical tensions, the impact of climate change, and the advance of industrial policies,[7] among other factors. Examples of these factors include the United States (US) raising tariffs on imports from China in several sectors[8] and the European Union (EU) tariffs on Chinese electric vehicles,[9] as well as disruptions to two key shipping routes due to various climatic and geopolitical events (Box 1).

BOX 1 • THE RISE IN MARITIME TRANSPORTATION COSTS

Port closures and congestion, supply chain disruptions, and changes to shipping routes and frequencies have driven up the cost of maritime transportation since mid-2020.[a] Although the war in Ukraine affected Black Sea routes, transportation costs began to fall in the second quarter of 2022 due to the slowing of global growth and the gradual return to normal operations at ports. By April 2023, freight costs had returned to pre-Covid levels. However, in early 2024, costs surged again in response to disruptions to two critical shipping routes: the Suez Canal and the Panama Canal, which handle 15% and 5% of the volume of global maritime trade, respectively.[b] Such disruptions are significant, as over 80% of the volume of global trade in goods is transported by sea.

On one hand, the attacks on global shipping in the Red Sea reduced traffic through the Suez Canal (the shortest route between Asia and Europe), forcing vessels to reroute around the Cape of Good Hope, which significantly increased travel times and costs.[c] On the other hand, drought conditions in the Panama Canal reduced the water available for filling locks, slowing traffic and causing long queues and delays from the second half of 2023 onward. The situation began to return to normal with the arrival of the rainy season in April 2024.[d] In August, the canal authority announced a return to normal transit times and water levels.[e]

Two indicators illustrate the impact of these disruptions on global trade. The World Container Index shows that the average cost of shipping a 40-foot container increased from US$1,400 in 2019 to over US$10,000 in September 2021. A sharp decline during 2022 and 2023 brought costs

(continued on next page)

[4] IMF (2024a).

[5] United Nations Conference on Trade and Development (UNCTAD) (2024a).

[6] IMF (2024b).

[7] See, for example, UNCTAD (2024a) and Rotunno and Ruta (2024) for analyses of the global trade impacts of subsidies.

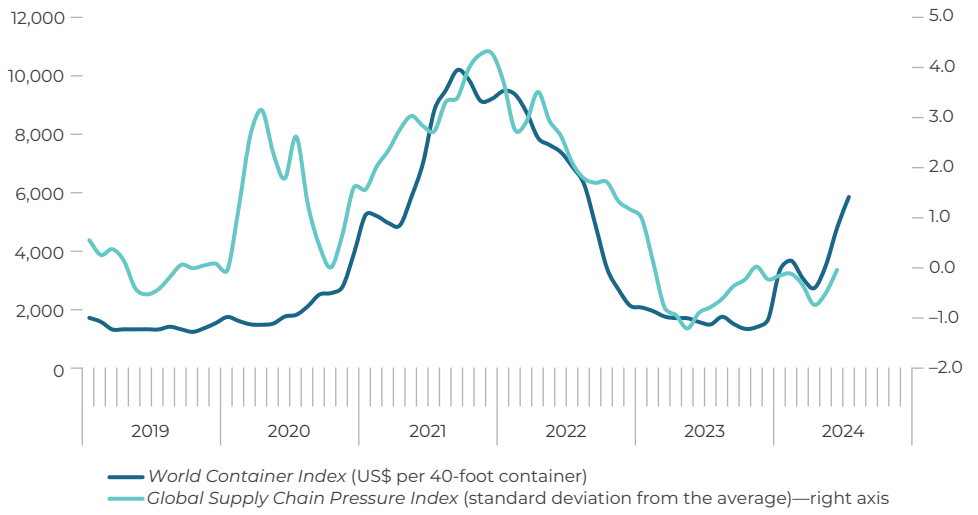
[8] The White House (2024).

[9] European Commission (2024).

BOX 1 • THE RISE IN MARITIME TRANSPORTATION COSTS *(continued)*

back down to around US$1,500 in the last quarter of 2023. However, in the first half of 2024, costs climbed back up to around US$3,500. Likewise, the Global Supply Chain Pressure Index, which tracks global supply chain disruptions, peaked at 4.2 standard deviations above the average in the last quarter of 2021 before plummeting throughout 2022 and early 2023. Since then, the index has shown some volatility, reflecting disruptions to the key maritime routes discussed above, among other factors (Figure).

INTERNATIONAL MARITIME SHIPPING COSTS
World Container Index (cost of a 40-foot container in US$) and Global Supply Chain Pressure Index (standard deviation from the average)



Source: IDB Integration and Trade Sector based on Drewry and the Federal Reserve Bank of New York.
Notes: The World Container Index (Drewry) reports container freight rates for major east–west trade routes. It comprises eight specific route indices and a composite index that tracks the cost per 40-foot container in US$. The Global Supply Chain Pressure Index (Federal Reserve Bank of New York) incorporates data on global transportation costs and indicators from the Purchasing Managers' Index (PMI) to provide an indicator of global supply chain conditions.

[a] Blyde and Volpe Martincus (2022) and Guerrero (2023).
[b] Based on data from Portwatch, IMF, and Oxford University.
[c] IMF (2024c).
[d] National Foreign Trade Association (2023) and Kadoch (2024).
[e] Kadoch (2024).

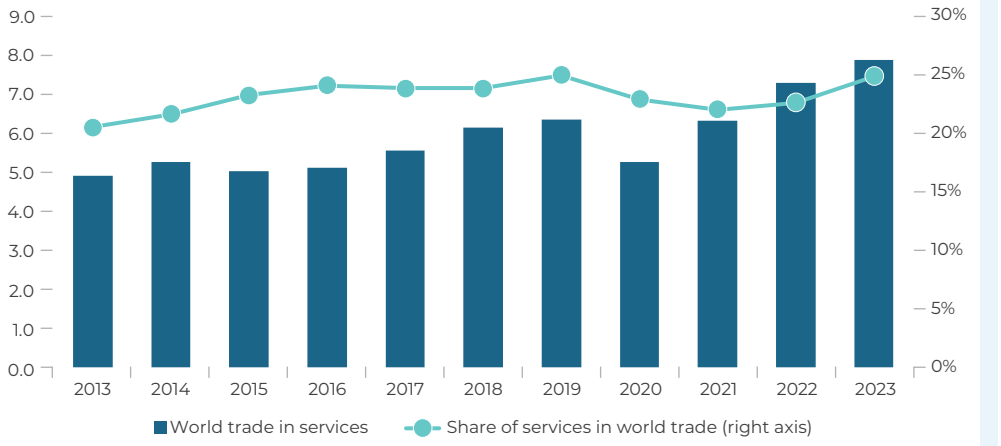
In contrast, global trade in services was very dynamic in 2023, increasing by a robust 9.6%, driven by international travel and, to a lesser extent, knowledge-based services (KBSs),[10] even as the transportation sector declined. Preliminary data for 2024 suggests that this trend is continuing (Box 2). Compared to the stagnation in trade in

[10] Knowledge-based services (KBSs) include other business services (OBS), telecommunications, computer, and information services (TCIS), charges for the use of intellectual property (CUIPs), and personal, cultural, and recreational services (PCRS).

BOX 2 • GLOBAL TRADE IN SERVICES FROM A LONG-TERM PERSPECTIVE

Global trade in services has been particularly dynamic in recent decades. Between 2013 and 2023, world service exports grew at a compound annual rate of 4.9%, to reach US$7.9 trillion,[a] while for goods exports, this rate was 2.3%, totaling US$23.7 trillion. Consequently, the share of services in global trade rose from 20.6% to 24.9%.

WORLD SERVICE EXPORTS: TREND AND SHARE IN WORLD TRADE
(Value in trillions of US$ and percentage shares, 2013–2023)



Source: IDB Integration and Trade Sector based on UNCTAD.

The composition of trade in services has changed significantly over the past decade, particularly since the pandemic. Although traditional service categories have returned to their pre-Covid levels, their market share has decreased. Between 2013 and 2023, travel services went from accounting for a quarter of global service exports to less than a fifth, while the share of transportation services—which are closely tied to trade in goods—fell from 19.2% to 17.0%.

The strongest performance came from KBSs, which grew by a compound average rate of 7.0% between 2013 and 2023. KBSs include business, professional, technical, IT, and creative services, which make intensive use of advanced technology and/or skilled labor to leverage technological innovation. Knowledge plays a key role in value creation. Over the last decade, the share of KBSs in total global service exports grew from 37.5% to 46.0%.

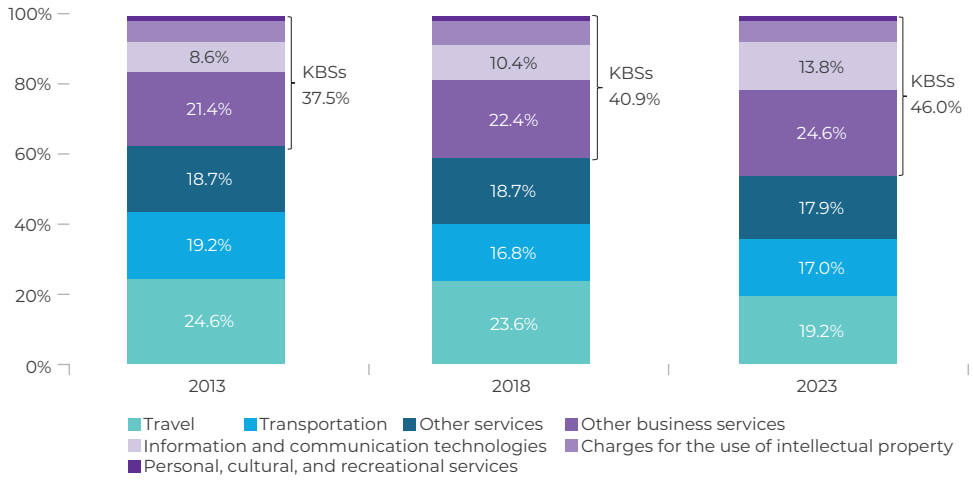
In recent years, despite the slowdown that followed the postpandemic rebound, trade in services has remained more dynamic than trade in goods. It grew by 9.6% in 2023, with nearly two-thirds of this increase driven by travel services (39.0% growth), followed by KBSs (8.9% growth).[b] Preliminary data for the first quarter of 2024 point to continuity in this uptrend, with trade in services increasing at 7.1% year-on-year.

At the regional level, services exports from Latin America and the Caribbean (LAC) grew by 12.2% in 2023 but slowed to 9.5% in the first quarter of 2024, still slightly outperforming the global average.

(continued on next page)

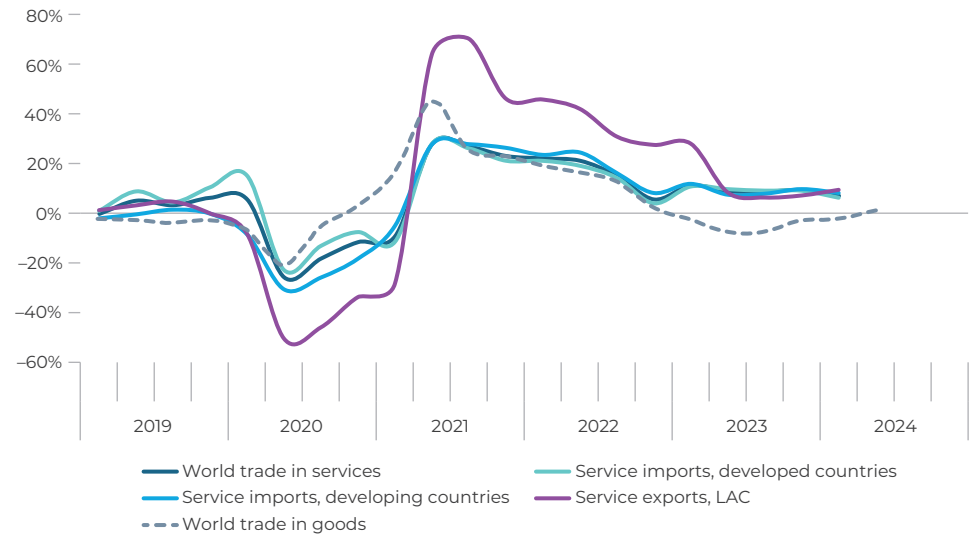
BOX 2 • GLOBAL TRADE IN SERVICES FROM A LONG-TERM PERSPECTIVE *(continued)*

COMPOSITION OF WORLD SERVICES EXPORTS
(Percentage of total exports, selected years, 2013–2023)



Source: IDB Integration and Trade Sector based on UNCTAD.

TREND IN THE VALUE OF WORLD TRADE IN SERVICES
(Year-on-year growth rate, percentages, 2019–2024)



Source: IDB Integration and Trade Sector based on UNCTAD and national sources.
Note: The value of world trade in goods is the average of imports and exports. For services, it is the value of world imports. The data for the first quarter of 2024 are preliminary estimates based on a sample of countries.

[a] In standard US usage, a trillion is one million million, as defined on the short scale. In other words, 1,000,000,000,000, or 10^{12}.

[b] The sample represents 97% of world service imports in 2022.

goods, the resilience of the service sector in the aftermath of the pandemic suggests that a structural change in globalization is underway, driven by KBSs.[11] The dynamism of this sector and its spillover effects on the rest of the economy make it particularly significant. For this reason, the focus of the thematic chapter of this edition of the *Trade and Integration Monitor* delves into the long-term performance of the service sector, analyzing internal and external factors that affect its competitiveness and considering key regulatory matters relevant to policy design in LAC.

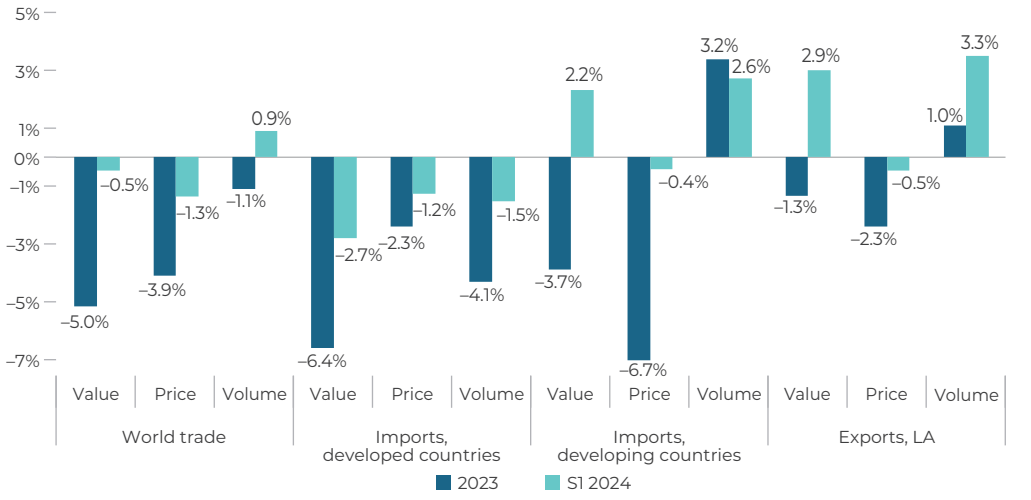
Trade in services was more resilient than trade in goods.

In 2023, the decrease in the value of trade in goods (–5.0%) was mainly due to a drop in international prices (–3.9%), although volumes also contracted (–1.3%). The unusual convergence of these two variables was explained by the impact of extraordinary factors (Figure 3). In the first half of 2024, prices continued to decline (–1.3%), albeit at a slower pace than in 2023, while a slight recovery in volumes (0.9%) offset the contraction.

Prices accounted for most of the contraction in trade in goods.

The value of imports by developing countries had fallen by 3.7% on average in 2023 but rebounded by 2.2% in the first half of 2024. Volumes grew during this period (2.6%), albeit at a slower pace than in 2023 (3.2%). The decline

FIGURE 3 • VOLUMES AND PRICES OF WORLD TRADE IN GOODS
(Year-on-year growth rate, percentages, 2023 and S1 2024)



Source: IDB Integration and Trade Sector based on CPB data and authors' estimations.
Note: The value of world trade is calculated as the average of global imports and exports. LA exports are the authors' estimations and do not include the Caribbean (see Methodological Annexes 1 and 2).

[11] See, for example, Baldwin (2022).

Developing countries have driven the stabilization of global trade.

of import prices also slowed (from –6.7% in 2023 to –0.4% in 2024). Meanwhile, imports by developed countries continued to fall in the first half of 2024, although at a slower pace (–2.7% compared to –6.4% in 2023). This was due to slower declines in prices (from –2.3% to –1.2%) and volumes (from –4.1% to –1.5%). The relative improvement in the global trade outlook has thus been driven by imports by developing countries, while developed countries continue to dampen the momentum of global trade.

In this context of stagnating global trade, the value of goods exports from Latin America (LA)[12] shifted from a 1.3% contraction in 2023 to a strong 2.9% recovery in the first half of 2024. This performance was driven by growth in volumes, which accelerated from 1.0% to 3.3% in this timeframe (Figure 3). Meanwhile, the decline in export prices slowed from –2.3% to –0.5%.[13] Given this context, an analysis of price dynamics is critical to assessing the region's trade performance and future outlook.

Exports from LAC outperformed global trade.

Commodity prices

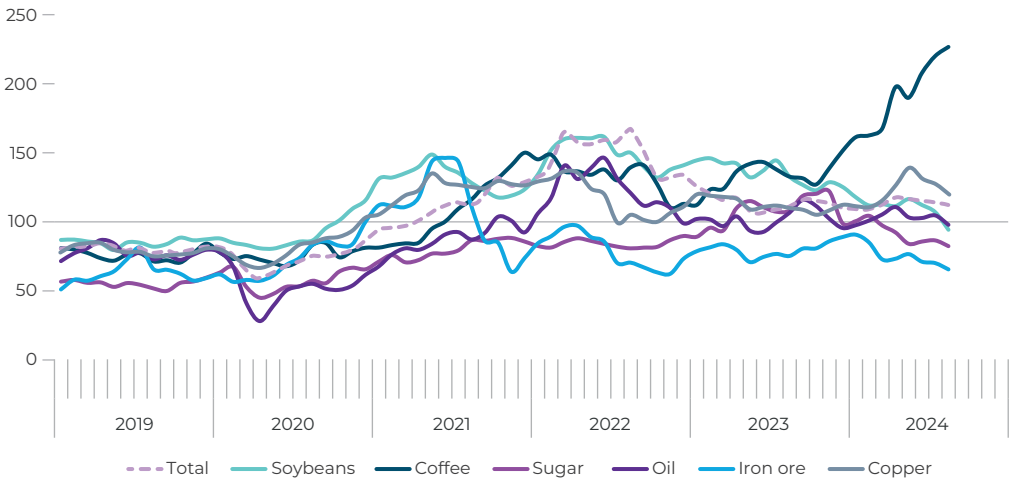
Commodity prices fell due to declining energy prices.

After peaking in 2022 following Russia's invasion of Ukraine, the overall commodity price index fell by 23.3% in 2023, dragged down by the drop in energy prices (–36.7%).[14] In addition to the effect of the previous year's high basis for comparison, restrictive monetary conditions and high interest rates encouraged investors to turn from commodities to other types of financial assets in 2023. Between late 2023 and early 2024, there were signs of a change in the trend, leading to a recovery in the prices of some commodities, such as copper and oil. However, from the second quarter onward, prices began to fall again. As a result, the overall index averaged a year-on-year decline of 2.0% in the first half of 2024, with energy prices falling by 4.8%, largely driven by lower natural gas prices (Figure 4). At any rate, average prices remain at relatively high historical levels.

Oil prices,[15] which fell by an average of 16.7% in 2023, rebounded by 3.2% year-on-year through August 2024. However, price movements have been volatile in recent months. Prices peaked in April 2024 due to escalating tensions in the Middle East and the prolongation of voluntary production cuts by the Organization of the Petroleum Exporting

[12] The Caribbean is not included due to a lack of up-to-date, disaggregated data.
[13] Based on a sample of 10 LA countries that accounted for 92.4% of the region's exports in 2023.
[14] According to the IMF All Commodity Price Index, the IMF Non-Fuel Price Index, and the IMF Fuel (Energy) Index.
[15] This is the average of Brent Blend, WTI, and Dubai Crude.

FIGURE 4 • PRICES OF THE MAIN EXPORT COMMODITIES FROM LATIN AMERICA AND THE CARIBBEAN
(Index 2010=100, 2019–2024)



Note: These six commodities account for about 31% of the region's total exports in 2021–2022 or 64% if Mexico is excluded.
Source: IDB Integration and Trade Sector based on Bloomberg (products) and IMF (total index).

Countries and associated states (OPEC+). This was followed by a decline as growth forecasts weakened in some of the major economies. The trend reversed again in September, when the escalation of the conflict in the Middle East pushed oil prices up again.

Oil prices were volatile.

The metals index saw average fluctuations of 0.6% in 2023 and recorded a cumulative drop of 2.0% through August 2024.[16] However, the behavior of the main metals exported by LAC countries varied. Copper prices, which fell by an average of 3.6% in 2023, recovered by 7.3% through August 2024 due to a lower supply of concentrate and rising demand. Iron ore prices, which grew just 0.9% in 2023, began to fall in early 2024, accumulating a 2.5% year-on-year decline by August. Projections for metal prices are mixed: while demand is expected to grow due to investments in renewable energy, increased supply in several products—such as lithium—is exerting downward pressure on prices. At the same time, there is no consensus among analysts on how China's recent announcements of new economic stimulus measures may impact demand for metals in sectors such as infrastructure, manufacturing, and private construction, the weakness of which has pushed prices down in recent years.[17]

Metal prices stabilized.

[16] According to the IMF Base Metals Price Index.
[17] World Bank (2024), Russell (2024), and The Economist (2024).

Agricultural prices weakened.

After peaking in May 2022 due to the Russian invasion of Ukraine, agricultural commodity prices[18] fell by 15.6% on average in 2023. Although prices rebounded by 4.0% through August 2024, they have trended downward since the second quarter of the year. This decline is expected to continue throughout the rest of 2024 due to increased supply, although climate events could affect this outlook.[19] Soybean prices, which declined by 8.6% on average in 2023, continued to fall, accumulating 21.2% year-on-year between January and August 2024, influenced by rising stocks and strong harvests in the US and South America. International coffee prices remained stable in 2023 but began to climb toward the end of that year, surging by 46.0% through August 2024 due to production declines in Vietnam and Indonesia caused by climatic events. Conversely, favorable weather conditions meant Brazil's most recent two harvests were abundant, and the country's exports helped to meet international demand.[20] Finally, international sugar prices increased 27.7% in 2023 due to reduced global supply as a result of lower shipments from India and Pakistan in response to climate events. Prices then entered a decline in 2024, falling by 11.6% between January and August due to increased supply as a result of strong harvests in Brazil.

Risks and prospects

A recovery in global trade is anticipated, although uncertainty remains high.

Following the impact caused by the war in Ukraine on food and energy prices, and with major economies now entering an expansionary phase in monetary policies, a gradual recovery in global trade is anticipated, driven by the US and developing countries. The World Trade Organization (WTO) projects that the volume of global trade in goods will increase by 2.7% in 2024 and 3.0% in 2025.[21] However, it expects the value of global trade flows to flatten in 2024 due to the downward trend in prices. Looking ahead, the WTO views the balance of risks as being heavily skewed to the downside due to the rise in regional conflicts, which could affect shipping and drive upward oil prices, and high policy uncertainty in some major economies. Moreover, recent months have brought a weakening of some of the variables underlying the WTO Goods Trade Barometer, a leading indicator that anticipates how global trade flows will develop (Figure 5).[22] Although the aggregate index increased

[18] According to the IMF Agricultural Raw Materials Index.

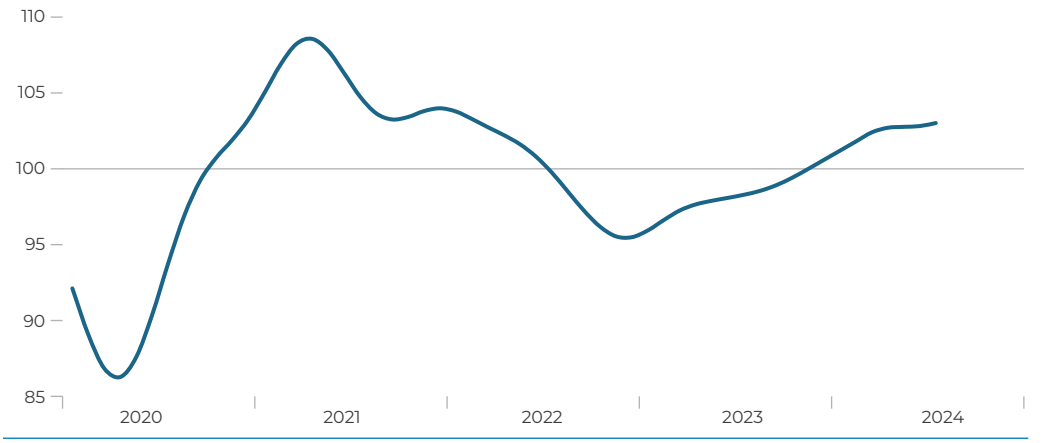
[19] UNCTAD (2024b).

[20] International Coffee Organization (2024).

[21] WTO (2024a).

[22] The Goods Trade Barometer is designed to gauge momentum and identify turning points in world trade growth in real time. Readings of 100 indicate trade growth in line with medium-term trends. Readings greater than 105 suggest above-trend growth, while those below 105 indicate the opposite.

FIGURE 5 • WTO GOODS TRADE BAROMETER
(Index, 2020–2024)



Source: IDB Integration and Trade Sector based on data from WTO.
Note: The index and its components measure the deviation in the medium-term trend, which is standardized at 100.

from 100.6 in March[23] to 103.2 in July,[24] not all the component subindices performed positively. The electronic components subindex remained below trend and continued to decline, the automotive sector subindex lost momentum (although it stayed above trend), and the agricultural raw materials subindex entered a contractionary phase. Although new export orders remained just above trend, the increase that began in mid-2022 has started to decline in recent months.

A closer look at the new export orders subindex reveals that it only climbed above the critical level between April and June 2024, before declining again in July and August. It also showed volatility across major economies and a certain lack of synchronization. The Republic of Korea, the US, and China drove the initial rise above the trend (Figure 6), but China's indicator only stayed above 50 in March and April 2024 before falling back below the threshold.[25]

The indicator for new export orders began to decline.

The Purchasing Managers' Index (PMI)[26] for global manufacturing is a survey-based indicator of operators' perceptions and expectations that provides a broader

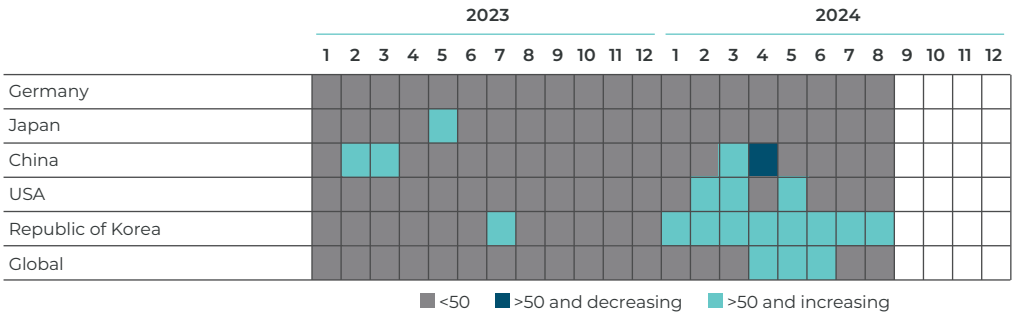
[23] WTO (2024b).

[24] WTO (2024c).

[25] This data is for the official PMI published by China's National Bureau of Statistics (NBS) and differs slightly from the data reported in China's manufacturing PMI, which is sponsored by Caixin and published by IHS Markit. The latter's new export orders subindex only began to decline in August. Given that it uses a smaller sample of firms (650 compared to 3,200) and is more concentrated in private, export-oriented companies, this subindex may be biased. The subindex published by the NBS, which draws on a larger sample of firms, performed more weakly from May onward.

[26] The PMI is made up of five variables: new orders, output, employment, suppliers' delivery times, and stocks of purchases. A reading above (below) 50 indicates an improvement or increase (deterioration or decline) in the

FIGURE 6 • NEW EXPORT ORDERS
(PMI manufacturing subindex, global and selected countries, January 2023–August 2024)

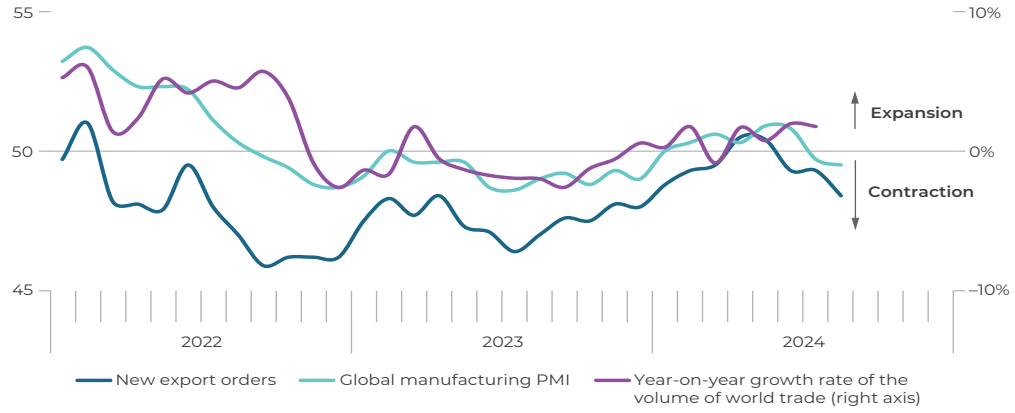


Source: IDB Integration and Trade Sector based on JP Morgan and China's National Bureau of Statistics (NBS).

overview of the global economy. In line with the trade indicators discussed above, the PMI has been recovering since June 2023, reaching the critical level of 50 in January 2024 and remaining there for the first half of the year. However, it dipped back below this threshold in July and August, driven by declines in the subindices for production, new orders, and employment (Figure 7).[27] This deterioration reflects worsening expectations about the global economic climate.

Expectations for the global manufacturing sector have worsened.

FIGURE 7 • PURCHASING MANAGERS' INDEX FOR THE GLOBAL MANUFACTURING SECTOR, NEW EXPORT ORDERS SUBINDEX, AND VOLUME OF WORLD TRADE
(Indices and percentages, 2022–2024)



Source: IDB Integration and Trade Sector based on JP Morgan and CPB.

manufacturing sector compared to previous month. The more the index diverges from 50, the greater the rate of change.

[27] JP Morgan (2024).

In summary, global trade's recent contractionary phase stabilized by mid-2023, following a year of decline. However, the prospects of a return to a solid growth path diminished by mid-2024, and various indicators point to a worsening global outlook in the second half of the year. Trade in goods currently faces significant uncertainty and downside risks, largely as a result of geopolitical tension, advancing industrial policies and protectionist measures, macroeconomic conditions that remain challenging, and uncertainty over potentially extreme weather events. In contrast, global trade in services remained robust, buoyed by the recovery in tourism and the continued growth of KBSs. Overall, weak external demand and volatile international prices create a challenging trade environment for LAC. A detailed analysis of the region's trade flows is presented in the following chapters.

2 The Trade Recovery in the Region

In the first half of 2024, goods exports from Latin America and the Caribbean (LAC) rebounded by 3.2%, reversing the 1.6% decline of the previous year and outperforming global trade. However, the recovery was uneven across the region's countries. Strong performances in Mexico, most South American countries, and some Caribbean nations offset declines in several Central American economies. The recovery was driven by increased export volumes, which were partially dampened by lower prices. Although services exports slowed, they continued to outpace the global average in the first quarter of 2024.

Performance by subregion, country, and sector

The trade recovery was uneven.

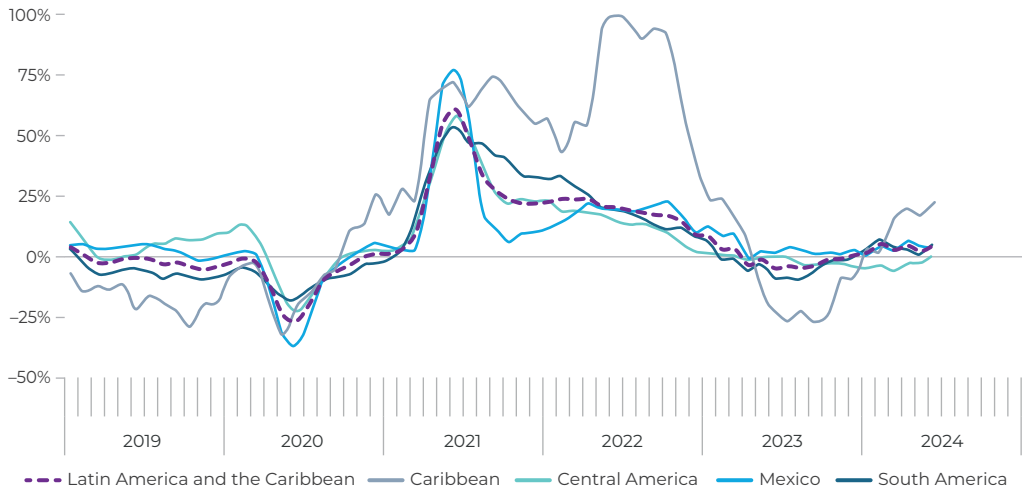
After falling by 1.6% in 2023, LAC's goods exports grew by 3.2% year-on-year in the first half of 2024 (Figure 8).[28] The region's exports outperformed the global average, with Mexico, South America, and the Caribbean driving the trend, while Central America remained on negative ground. This outcome owed to an acceleration in export growth from mid-2023 onward. However, the recovery has shown signs of slowing since early 2024.

In South America, exports rebounded by 3.7% in 2024 after falling by 4.4% in the first half of 2023 (Table 1). Most South American countries saw improvements, except Bolivia and Colombia. The recovery was aided by the slowing of the decline in commodity prices, particularly that of oil. Likewise, the agricultural sector benefited from better weather conditions after being hit by drought the previous year. This was true in

Exports recovered in most South American countries.

[28] The estimate for the first half of 2024 is based on data for 23 LAC countries and differs from the data presented in Chapter 1, which includes LA but not the Caribbean.

FIGURE 8 • TREND IN THE VALUE OF GOODS EXPORTS FROM LATIN AMERICA AND THE CARIBBEAN
(Quarterly moving average of the year-on-year growth rate, 2019–2024)



Source: IDB Integration and Trade Sector based on INTEGRA and national sources.

Argentina, whose improved performance was explained by increased shipments of key crops like wheat, soybeans, soybean byproducts, and maize after the drought of 2023, as well as oil. Brazil's exports were driven by oil, iron ore, and agroindustrial products (sugar, cotton, and coffee) (Box 3). Oil and cacao explained the recovery in Ecuador, and exports of the former also increased in Venezuela. Uruguay's export growth was fueled by agricultural products and cellulose, while Peru saw gains in exports of gold, other mining products, and coffee. Paraguay's exports of soybeans and soybean meal were strong, and Chile saw increased exports of copper concentrate and fruit (grapes and cherries). Conversely, Bolivia experienced declines in exports of gold, soybeans, and soybean byproducts. The decline in Colombia's exports was mainly explained by lower shipments of bituminous coal.

In the first half of 2024, Mexican exports continued to grow at the same relatively high average pace as in 2023 (2.6%), while the rest of the Mesoamerican subregion experienced a noticeable contraction (Table 1). Mexico's performance was mainly driven by exports of automotive sector manufactures to the United States (US), partly offset by reduced oil shipments (Box 3).

The pace of Mexico's export growth remained steady.

In contrast to the situation in Mexico and South America, exports from Central America fell by 3.0% in the first half of 2024 after a 2.0% decline in 2023. The only Central American countries not to experience declines were

TABLE 1 • GOODS EXPORTS FROM LATIN AMERICA AND THE CARIBBEAN
(Billions of US$ and annual growth rate, 2020–S1 2024)

	Billions of US$			Growth rate (%)				
	2020	2021	2022	2023	2021	2022	2023	S1 2024
LATIN AMERICA AND THE CARIBBEAN	**942.0**	**1,206.5**	**1,413.1**	**1,389.3**	**28.0**	**17.2**	**–1.6**	**3.2**
LATIN AMERICA	**928.5**	**1,186.0**	**1,379.3**	**1,361.0**	**27.7**	**16.3**	**–1.3**	**2.9**
MESOAMERICA	**469.4**	**561.7**	**652.2**	**666.0**	**19.7**	**16.1**	**2.1**	**1.9**
Mexico	417.2	494.9	577.7	593.0	18.6	16.7	2.6	2.6
Central America	**52.3**	**66.7**	**74.5**	**73.0**	**27.7**	**11.6**	**–2.0**	**–3.0**
Costa Rica	11.6	14.4	15.7	18.2	23.7	9.4	15.5	6.7
El Salvador	5.0	6.4	7.1	6.5	27.2	11.3	–8.7	–6.7
Guatemala	11.1	13.6	15.7	14.2	22.7	14.9	–9.4	–0.9
Honduras	7.7	10.2	12.2	11.3	33.5	19.9	–7.3	–5.3
Nicaragua	5.3	6.9	7.7	7.5	29.4	12.6	–2.4	–0.9
Panama[a]	1.7	3.6	3.7	3.4	111.3	0.2	–7.8	–73.6
Dominican Republic	9.8	11.6	12.4	11.9	18.3	6.3	–3.6	3.1
SOUTH AMERICA	**459.1**	**624.3**	**727.1**	**695.0**	**36.0**	**16.5**	**–4.4**	**3.7**
Argentina	54.9	77.9	88.4	66.8	42.0	13.5	–24.5	14.0
Bolivia	7.1	11.0	13.6	10.8	54.9	23.8	–20.6	–21.8
Brazil	209.2	280.8	334.1	339.7	34.2	19.0	1.7	1.4
Chile	74.1	94.6	98.6	94.6	27.7	4.2	–4.1	1.4
Colombia	31.1	41.4	56.9	49.8	33.3	37.5	–12.5	–2.9
Ecuador	20.4	26.7	32.7	31.1	31.2	22.3	–4.7	11.8
Paraguay	8.5	10.6	9.9	11.9	24.1	–5.9	19.3	1.2
Peru	41.7	60.9	63.6	64.6	46.1	4.5	1.6	7.2
Uruguay	6.9	9.5	11.2	9.2	38.9	17.3	–17.6	5.3
Venezuela	5.3	10.8	18.0	16.5	103.2	65.9	–8.0	34.6
CARIBBEAN[b]	**13.5**	**20.5**	**33.9**	**28.2**	**51.4**	**65.6**	**–13.7**	**20.0**
Bahamas[b]	0.2	0.5	0.6	0.7	137.3	13.3	19.6	–40.8
Barbados	0.2	0.2	0.3	0.2	8.0	3.5	–4.1	–3.9
Belize	0.2	0.2	0.2	0.2	2.4	10.8	–15.8	–4.6
Guyana	2.6	4.4	11.2	13.0	67.6	157.8	15.8	66.6
Haiti	0.9	1.2	1.2	n.d.	34.2	0.1	n.d.	n.d.
Jamaica[b]	1.3	1.5	1.9	2.0	18.4	28.4	4.9	–4.5
Suriname	2.1	1.4	1.8	1.7	–35.0	30.7	–5.9	11.5
Trinidad and Tobago[b]	6.0	11.1	16.7	10.4	84.6	50.6	–37.8	–19.6

Source: IDB Integration and Trade Sector based on INTEGRA and national sources.
Notes: n.d.: no data available. Methodological Annex 3 describes the geographic coverage and time periods included in the goods export data.[a] The data for Panama does not include exports from STRs.[b] Data is only available for the first quarter for the Bahamas and Trinidad and Tobago, and through April for Jamaica. The aggregate data for the Caribbean and LAC for the first half of 2024 are estimations based on the available data.

Costa Rica and the Dominican Republic. While the factors underlying each country's export performance differed, common trends included weaker exports of commodities and derivatives such as coffee, which accounts for a significant proportion of the

BOX 3 • THE BASIS OF MEXICO AND BRAZIL'S EXPORT GROWTH

LAC's largest economies and main exporters, Mexico and Brazil, accounted for 43% and 24% of the region's total exports in 2023, respectively. Both economies have recorded strong export growth in recent years, allowing them to expand their global market share, despite an unfavorable trade environment that has had the opposite effect on most countries in the region. As was noted in the 2022 edition of the *Trade and Integration Monitor*, Mexico and Brazil were among the few countries that managed to increase their export competitiveness between 2012 and 2021.[a]

MEXICO. The country's strong trade performance stemmed mainly from automotive exports to the US. Mexico's total sales in this sector reached US$593 billion in 2023, 82.7% of which went to the US market. Mexican exports to the US grew faster than its total exports both in 2023 (3.7% vs. 2.6%) and in the first half of 2024 (3.2% vs. 2.6%). As a result, Mexico has continued to consolidate its position as the leading source for US imports, coming to account for 15.9% of the country's total external purchases and overtaking Canada (13.1%) and China (12.7%) in the first half of 2024. Mexico's share of the US import basket increased, while China's declined (Figure). This increase has emerged in parallel with a significant rise in US investment in Mexico, which surged by 46.8% between 2016 and 2023, more than double the overall rate of total US investments abroad (21.0%).[b] Mexico has been gaining US market share in key products such as vehicles and vehicle parts. The automotive sector was also the main target for US manufacturing investment in Mexico in

US IMPORTS FROM MEXICO AND CHINA
(Billions of US$, 2017–2024)

Source: IDB Integration and Trade Sector based on the United States Census Bureau.

(continued on next page)

BOX 3 • THE BASIS OF MEXICO AND BRAZIL'S EXPORT GROWTH *(continued)*

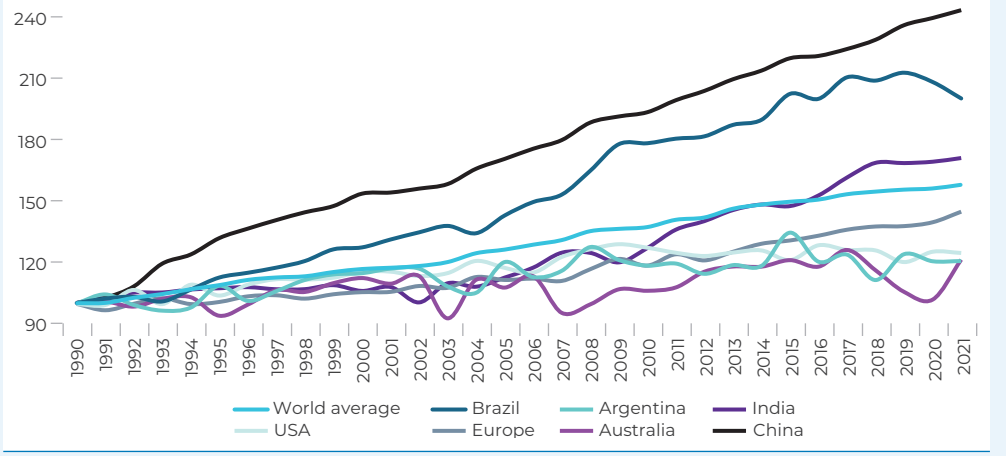
2016–2023, with oil, electronic products, and agriculture among the other notable sectors. Although the empirical evidence is still emerging, it suggests that not only is Mexico's trade resilience rooted in competitive advantages built over the last decade but also that the country is poised to benefit from nearshoring opportunities generated by rising global geopolitical tensions.[c]

BRAZIL. The growth of Brazil's exports since 2021 has been fueled by increased volumes, while prices have had a negative effect since 2023. Recent gains include increased export volumes in the agricultural sector (23.4% in 2023 and 8.8% in the first quarter of 2024), with strong performances for soybeans, maize, and sugar. Export growth was also robust for the extractive industries (15.8% in 2023 and 19.8% in the first quarter of 2024), particularly for iron ore and oil.

Brazil has also seen significant growth in agribusiness, which encompasses agriculture, inputs, services, and the fishing industry. The sector accounted for 24.0% of GDP in 2023, up from 20.0% in 2018.[e] Manufactures of agricultural origin explained half of Brazil's increased export competitiveness between 2012 and 2021.[f] Technological advancements spearheaded by Embrapa[g] (an agency associated with the Ministry of Agriculture) and other agricultural research institutions such as universities have been pivotal in the modernization of Brazilian agriculture. Productivity increases[h] (Figure) were driven by the adoption of innovative practices like no-till farming, crop adaptation technologies, and sustainable intensification. These improvements significantly boosted soybean and maize production, transforming Brazil into a global competitor in these markets. As a result, the country has established itself as the world's leading exporter of major agricultural products, including soybeans, corn, coffee, and sugar, capturing substantial market share in China, which is now its primary export destination.

However, a change in this trend has been evident since 2018, which may suggest diminishing marginal returns on the recent investment cycle. Further evidence for the need for more

TOTAL FACTOR PRODUCTIVITY FOR AGRICULTURE IN SELECTED COUNTRIES
(Index 1990=100, 1990–2021)



Source: IDB Integration and Trade Sector based on US Department of Agriculture (USDA).

(continued on next page)

BOX 3 • THE BASIS OF MEXICO AND BRAZIL'S EXPORT GROWTH *(continued)*

efficient investment strategies to support the agricultural sector comes from Argentina, where productivity has stagnated for over a decade. As a result, the country's competitiveness declined between 2012 and 2021, particularly in primary products and manufactures of agricultural origin.[i] Meanwhile, steady productivity gains in China and India underscore the growing challenges that LAC countries face in maintaining their competitive edge in global markets.

[a] See Giordano et al. (2022 and 2023).
[b] IDB INTAL (2024).
[c] See, for example, Durán Fernández (2024), Alfaro and Chor (2023), Chiquiar and Tobal (2024), and Freund, Mulabdic, and Ruta (2023).
[d] Ministério do Desenvolvimento, Indústria, Comércio e Serviços (2024a).
[e] Centro de Estudos Avançados em Economia Aplicada, and Confederação Nacional da Agricultura e Pecuária (2024).
[f] Giordano et al. (2023).
[g] Gilio (2023).
[h] USDA 2023 data.
[i] Giordano et al. (2023).

Central America's export performance deteriorated.

export supply of various Central American economies (Box 4). Costa Rica's export growth was driven by sales of precision and medical equipment and, to a lesser extent, agroindustrial products like pineapples and bananas. The Dominican Republic saw gains in sales of medical and surgical instruments and appliances from its special trade regimes (STRs), but these were partially offset by a decline in exports of cast iron and steel from the national customs territory (NCT). In Nicaragua, the downturn was explained by lower sales of automotive wiring harnesses and fishing products from the STRs and coffee from the NCT. The Guatemalan exports that fell most were fats and oils from free trade zones and sugar from the NCT, while Honduras saw reduced shipments of coffee, banana, palm oil, and textiles, the latter from its STRs. Exports of apparel, coffee, and paper and cardboard all declined in El Salvador. Exports from Panama recorded the steepest decline in the region, largely due to the closure of a copper mine that had given the country's export performance an extraordinary boost in recent years.

Caribbean exports are estimated to have recovered significantly in the first half of 2024 (20.0%), after declining in the average for 2023 (–13.7%), based on data available for selected countries in the subregion. However, this growth was driven almost entirely by Guyana, which continued to see robust export growth in the first half of 2024 due to increased oil

Export performances varied in the Caribbean.

BOX 4 • THE IMPACT OF THE GLOBAL COFFEE MARKET ON REGIONAL EXPORTS

The international price of coffee increased by 46.0% year-on-year through August 2024, driven by an imbalance between production and global consumption during the last two harvests. Global coffee production stagnated in 2022–2023 due to declines in Asia and Oceania (–4.6%) and Africa (–7.3%) caused by adverse weather events, which were only partially offset by a 4.1% increase in supply from LAC, driven mainly by Brazil. However, improvements to international coffee prices did not necessarily have a similar impact on the export of LAC economies with comparative advantages in this market.

The main coffee-growing nations in LAC are Brazil (38.9% of global production), Colombia, Mexico, and several Central American countries. Together, these produce nearly 60% of the world's coffee, or 168.2 million 60-kg bags in the 2022–2023 season. Arabica accounts for 56% of the coffee grown in LAC, while the remaining 44% is lower-quality robusta.

COFFEE PRODUCTION BY VARIETY AND REGION
(Millions of 60-kg bags, 2021–2023)

Production	2021/22	2022/23	Growth rate	Share
Variety				
Arabica	92.3	94		56%
Robusta	75.7	74.2		44%
Regions				
LAC	96.5	100.5	4.1%	59.8%
South America	77.6	81.3	4.8%	48.3%
Central America, Mexico, and the Caribbean	18.9	19.2	1.6%	11.4%
Asia and Oceania	52.2	49.8	–4.6%	29.6%
Africa	19.3	17.9	–7.3%	10.6%
Total	**168.0**	**168.2**	**0.1%**	

Source: International Coffee Organization (ICO).

South American coffee exports increased markedly in the first half of 2024, particularly from Brazil (49.7%), although the market boom also benefited Peru (63.5%) and, to a lesser extent, Colombia (2.6%) (Table). However, exports from Central America and Mexico dropped sharply. In Guatemala and Honduras, this was mainly due to their being in low-yield periods of their two-year production cycles.[a] Nicaragua was severely affected by the collapse in December 2023 of the firm that exported almost half of the country's production,[b] while El Salvador was hit by coffee rust and climate issues that also impacted Costa Rica. These factors explain why exports from the main coffee-growing countries in Central America dropped despite the price hike in the first half of 2024 (Table).

(continued on next page)

BOX 4 • THE IMPACT OF THE GLOBAL COFFEE MARKET ON REGIONAL EXPORTS *(cont.)*

VALUE OF COFFEE EXPORTS FROM MAIN LAC COUNTRIES
(Millions of US$ and growth rates, 2022–S1 2024)

	Values in millions of US$				Growth rate	
Countries	2022	2023	S1 2023	S1 2024	2023 vs. 2022	S1 2024 vs. S1 2023
Brazil	8,514	7,315	3,258	4,878	–14.1%	49.7%
Colombia	3,962	2,792	1,428	1,465	–29.5%	2.6%
Costa Rica	371	347	228	203	–6.5%	–11.1%
El Salvador	177	147	106	77	–16.8%	–27.7%
Guatemala	1,113	946	672	579	–15.0%	–13.8%
Honduras	1,404	1,393	1,035	909	–0.8%	–12.2%
Mexico	618	394	273	245	–36.3%	–10.2%
Nicaragua	715	607	460	342	–15.1%	–25.7%
Peru	1,236	829	159	260	–32.9%	63.5%

Source: IDB Integration and Trade Sector based on data from national statistics bureaus.

[a] Coffee trees typically follow a two-year production cycle that alternates between high-yield and low-yield years. Crops are smaller during low-yield years because the plants produce fewer flowers and thus fewer beans.
[b] ICO (2024).

shipments, and Suriname, albeit to a lesser extent. Conversely, the preliminary data for the Bahamas, Barbados, Belize, Jamaica, and Trinidad and Tobago point to a decline in export performance.

On the import side, LAC's purchases abroad went from a 6.1% decline in 2023 to modest growth of 0.6% in the first half of 2024 (Table 2). The end of the downturn in the region was largely due to a trend reversal in Mexico, where imports grew by 2.2% in the first half of 2024 after a 1.0% decline in 2023. Central America had a similar but smaller effect, with a 2.8% increase after a 4.4% drop. In contrast, South American imports continued to decline in the first half of 2024 (–1.8%), albeit at a much slower pace than in 2023 (–11.7%). However, this subregional aggregate conceals a variety of performances, as countries like Brazil, Ecuador, Paraguay, Peru, and Venezuela all saw increases. A sample of countries in the Caribbean recorded a slowdown in imports in the first half of 2024 (5.0%), following a 9.9% increase in 2023. This shift owes mainly to a dramatic reversal in Guyana (from 118.1% in 2023 to –12.7% in the first half of 2024) and, to a lesser extent, the Bahamas (from 9.1% to 0.0%).

The decline in imports stabilized.

TABLE 2 • GOODS IMPORTS INTO LATIN AMERICA AND THE CARIBBEAN
(Billions of US$ and annual growth rate, 2020–S1 2024)

	Billions of US$				Growth rate (%)			
	2020	2021	2022	2023	2021	2022	2023	S1 2024
LATIN AMERICA AND THE CARIBBEAN	**873.7**	**1,200.6**	**1,452.4**	**1,359.9**	**37.5**	**21.0**	**–6.1**	**0.6**
LATIN AMERICA	**851.7**	**1,172.1**	**1,420.2**	**1,329.7**	**37.6**	**21.2**	**–6.4**	**0.5**
MESOAMERICA	**467.9**	**626.6**	**752.4**	**739.8**	**33.9**	**20.1**	**–1.7**	**2.3**
Mexico	383.0	505.7	604.6	598.5	32.0	19.6	–1.0	2.2
Central America	**84.9**	**120.9**	**147.8**	**141.3**	**42.4**	**22.2**	**–4.4**	**2.8**
Costa Rica	14.0	18.4	21.4	22.5	31.5	16.4	5.0	6.1
El Salvador	10.2	14.6	17.1	15.6	42.6	17.0	–8.5	0.0
Guatemala	18.2	26.6	32.1	30.3	46.1	20.7	–5.6	6.0
Honduras	11.2	16.9	20.7	19.3	50.2	22.8	–6.6	1.6
Nicaragua	5.9	8.4	10.1	10.0	41.8	21.0	–1.3	9.3
Panama[a]	8.1	11.6	15.2	14.5	43.1	31.8	–4.6	–6.2
Dominican Republic	17.3	24.5	31.1	29.0	41.9	26.9	–6.5	1.6
SOUTH AMERICA	**383.8**	**545.5**	**667.9**	**589.9**	**42.1**	**22.4**	**–11.7**	**–1.8**
Argentina	42.4	63.2	81.5	73.7	49.2	29.0	–9.6	–27.6
Bolivia	7.0	9.6	11.9	11.5	38.3	23.4	–3.2	–15.7
Brazil	158.8	219.4	272.6	240.8	38.2	24.2	–11.7	3.9
Chile	59.2	92.4	104.6	85.3	56.0	13.2	–18.5	–5.1
Colombia	41.2	56.6	71.4	59.4	37.5	26.1	–16.8	–3.5
Ecuador	17.9	25.7	33.0	30.9	43.4	28.7	–6.5	13.3
Paraguay	9.5	13.6	15.2	15.8	43.5	11.9	3.8	10.1
Peru	33.8	46.6	54.7	48.8	37.6	17.4	–10.7	1.8
Uruguay	7.6	10.3	12.0	12.5	36.4	16.5	3.9	–5.1
Venezuela	6.5	8.1	10.8	11.2	23.9	34.0	3.1	36.0
CARIBBEAN[b]	**22.0**	**28.6**	**32.2**	**30.2**	**29.9**	**12.8**	**9.9**	**5.0**
Bahamas[b]	2.2	3.5	3.8	4.2	57.9	10.3	9.1	0.0
Barbados	1.5	1.8	2.2	2.1	21.3	18.4	–1.5	2.1
Belize	0.8	1.1	1.4	1.3	31.1	30.2	–2.9	14.6
Guyana	2.2	4.2	3.0	6.6	86.0	–27.0	118.1	–12.7
Haiti	3.9	4.3	4.8	0.0	9.9	10.6	n.d.	n.d.
Jamaica[b]	4.8	6.0	7.7	7.6	25.3	29.5	–1.8	0.5
Suriname	1.5	1.4	1.8	1.7	–9.9	30.7	–5.9	11.5
Trinidad and Tobago[b]	5.0	6.4	7.5	6.6	26.9	17.8	–11.9	31.8

Source: Source: IDB Integration and Trade Sector based on INTEGRA and national sources.
Notes: n.d.: no data available. See Methodological Annex 3. [a] The data for Panama does not include imports through STRs. [b] Data is only available for the first quarter for the Bahamas and Trinidad and Tobago, and through April for Jamaica. The aggregate data for the Caribbean and LAC for the first half of 2024 are estimations based on the available data.

The contribution of prices and volumes

LA export prices fell slightly in the first half of 2024 (–0.5%), following a 2.3% decline in 2023.[29] This relative stabilization was the result of prices growing at a faster rate in Mexico (from 1.2% and 3.6%) and declining more slowly in Brazil and South America, where they fell by 5.9% and 4.6%, respectively, in 2023, and by 4.5% and 2.0% year-on-year in the first half of 2024.

Export prices fell.

In contrast, import prices in LA fell more sharply in the first half of 2024 (–3.1%) than in 2023 (–2.6%). The contraction intensified in response to a steeper decline in Brazil (from –6.0% to –8.8%) but was partially offset by a slight improvement in Mexico (from 0.1% to 0.3%). In the rest of South America, import prices continued trending downward but at a slightly slower pace than in 2023 (from –4.7% to –4.0%).

The prices of imports fell more than those of exports.

As import prices fell more than export prices in both 2023 and the first half of 2024, LA's terms of trade improved in both periods (Figure 9). However, the relative stabilization of export prices meant that this improvement was more pronounced in the first half of 2024 than the 2023 average (2.7% and 0.3%, respectively). External purchasing power increased in all the economies analyzed here. The most significant improvement was in Brazil: after a near stagnation in 2023 (0.2%), terms of trade increased by 4.7% in the first half of 2024 as import prices fell further at a time when the contraction of export prices was slowing. Terms of trade also improved in the rest of South America, increasing by 2.1% in the first half of 2024 after stagnating the previous year, when the decline in the region's oil-exporting economies (Colombia, Ecuador, and Venezuela) offset improvements in other countries. In Mexico, they went from a 1.1% increase to one of 3.9% on the back of higher export prices. Data for Central America is only available for 2023, when the subregion saw a 3.8% increase in its terms of trade due to export prices falling less than import prices (–1.2% and –2.5%, respectively).

Terms of trade improved.

In real terms, LA's exports had already resumed a growth path in 2023, increasing by 1.0%, driven mainly by the momentum of Brazil (8.0%) and Mexico (1.5%)

[29] The breakdown of export prices and volumes is based on a sample of 18 LA countries for 2023, as is detailed in Methodological Annex 2. The methodology used for Mexico differs from previous editions of this report due to substantial inconsistencies in the application of the deflators estimated by BLS at the sector level. Therefore, this edition uses the *All Commodities from Mexico* price index published by the BLS. The sample for the first half of 2024 includes 10 LA countries that account for approximately 90% of the region's exports. For Central America, an estimate is only available for El Salvador. The Caribbean countries are excluded from both periods due to a lack of data.

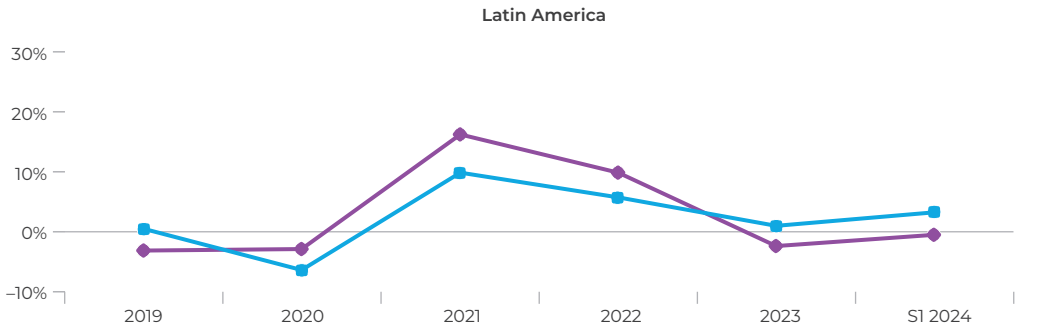
FIGURE 9 • LATIN AMERICA'S TERMS OF TRADE
(Index 2015=100 and annual variation rate, percentages, 2019–S1 2024)

Source: Source: IDB Integration and Trade Sector based on INTEGRA, BLS, and national sources.
Note: Terms of trade were calculated based on 18 countries: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay, and Venezuela. The data for the first half of 2024 was estimated based on a sample of 10 countries (see Methodological Annex 2).

(Box 3). However, volumes continued to contract in the rest of South America (–5.1%), with declines in Argentina, Bolivia, Chile, Colombia, Uruguay, and Central America (–3.1%), where all countries except Costa Rica recorded lower exports. In the first half of 2024, the growth in export volumes accelerated to 3.3%, fueled by increases in Brazil (6.0%) and the rest of South America (8.6%), with gains in Argentina, Colombia, Paraguay, Peru, Uruguay, Venezuela. Conversely, exports from Mexico shrunk by 1.0% (Figure 10).[30] However, high-frequency data indicates that

Export volumes continued to expand.

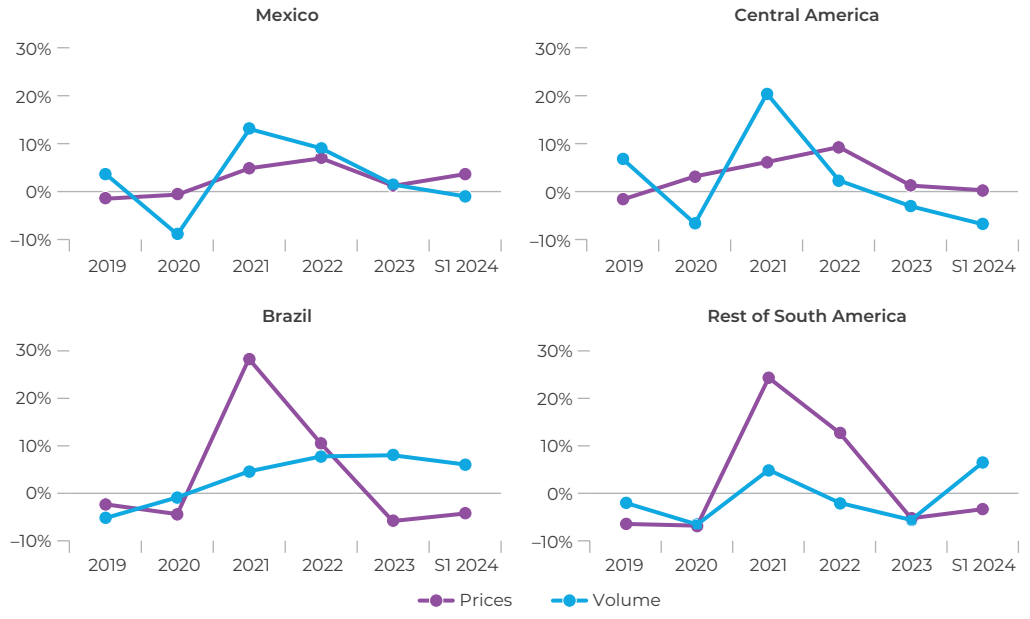
FIGURE 10 • PRICES AND VOLUMES OF LATIN AMERICAN EXPORTS
(Year-on-year growth rate, percentages, 2019–S1 2024)



(continued on next page)

[30] As explained in footnote 29, El Salvador is the only Central American country for which data for the first half of 2023 was available.

FIGURE 10 • PRICES AND VOLUMES OF LATIN AMERICAN EXPORTS
(Year-on-year growth rate, percentages, 2019–S1 2024) *(continued)*



Source: IDB Integration and Trade Sector based on INTEGRA, BLS, and OPEC.
Note: The base year for the indices is 2015. Methodological Annex 2 contains a detailed description of the estimation procedures for the series at constant prices.

this acceleration in export volume growth was concentrated between January and May, when it peaked, before contracting again in June, underscoring high volatility.

In summary, LA's trade in goods rebounded in the first half of 2024, outperforming the global average. This improvement was explained by rallying exports in South America and the Caribbean and continued growth in Mexico, driven by increased volumes in the former and higher prices in the latter. In contrast, exports continued to decline in Central America. The previous year's decline in imports also went into reversal, except in South America, where they continued to fall, albeit at a slower rate than in 2023. The intensification of the decline in import prices brought improvements to the region's terms of trade, amid relatively stable export prices. However, trends in recent months suggest high volatility in the growth path of real exports from May onward.

The resilience of the services sector

Similar to goods exports, LAC's services exports performed better than the global average. However, the growth rate slowed slightly in the first quarter of 2024 (9.5%) compared to the average for 2023 (12.2%) (Table 3). Growth was seen across all LAC subregions in both periods, although performances were more varied in early 2024: while Mexico's

TABLE 3 • SERVICES EXPORTS FROM LATIN AMERICA AND THE CARIBBEAN
(Billions of US$ and annual growth rate, 2020–Q1 2024)

	Billions of US$				Growth rate (%)				
	2020	2021	2022	2023	2020	2021	2022	2023	Q1 2024
LATIN AMERICA AND THE CARIBBEAN	**120.0**	**152.9**	**209.4**	**235.0**	**–36.0**	**27.4**	**36.9**	**12.2**	**9.5**
LATIN AMERICA	**114.8**	**145.0**	**197.7**	**221.5**	**–34.3**	**26.3**	**36.3**	**12.0**	**9.7**
MESOAMERICA	**56.0**	**78.8**	**103.4**	**115.0**	**–36.5**	**40.8**	**31.3**	**11.2**	**11.5**
Mexico[a]	28.5	42.4	52.2	56.2	–35.4	48.7	22.9	7.7	11.0
Central America	**27.4**	**36.3**	**51.2**	**58.8**	**–37.7**	**32.5**	**41.1**	**14.8**	**12.0**
Costa Rica	7.9	8.8	12.8	14.8	–27.3	10.8	45.3	16.3	16.0
El Salvador	2.2	3.1	4.3	5.1	–33.6	41.3	39.3	18.2	35.2
Guatemala[b]	2.0	2.3	3.2	3.6	–31.9	12.9	40.0	13.6	12.7
Honduras	2.0	2.8	3.3	3.7	–33.6	43.6	14.6	14.2	4.3
Nicaragua[b]	0.5	0.6	1.0	1.2	–35.0	7.7	80.6	14.7	15.7
Panama	8.2	10.6	15.3	17.5	–40.4	30.0	43.7	14.2	0.7
Dominican Republic	4.6	8.1	11.4	12.9	–50.8	76.9	40.7	13.1	16.1
SOUTH AMERICA	**58.9**	**66.3**	**94.3**	**106.5**	**–32.1**	**12.6**	**42.3**	**12.9**	**7.6**
Argentina	9.5	9.5	14.5	16.5	–35.9	0.1	52.5	14.1	–0.3
Bolivia[b]	0.4	0.4	0.9	1.1	–71.2	7.6	109.0	18.6	25.3
Brazil	27.5	31.5	40.3	45.2	–16.7	14.4	28.0	12.2	9.9
Chile	5.6	5.8	8.5	9.8	–34.4	5.2	45.7	15.0	–1.3
Colombia	5.9	8.2	13.8	15.6	–44.6	38.3	68.9	13.3	18.1
Ecuador	1.8	2.1	2.9	3.2	–44.5	14.7	40.6	8.5	–15.0
Paraguay	1.4	1.6	2.2	2.5	–37.2	15.4	34.9	13.9	–1.4
Peru	2.7	2.9	5.0	5.8	–59.3	8.1	68.4	17.1	26.9
Uruguay	3.8	3.8	5.6	6.2	–29.8	0.2	47.0	11.5	2.0
Venezuela[c]	0.3	0.4	0.7	0.7	n.d	n.d	n.d	n.d	n.d.
CARIBBEAN	**5.2**	**7.9**	**11.7**	**13.5**	**–58.6**	**51.9**	**47.5**	**15.6**	**6.0**
Bahamas[c]	1.2	2.6	3.9	4.3	–72.3	116.7	45.8	11.3	n.d.
Barbados[c]	0.7	0.8	1.1	1.4	–49.2	n.d	n.d	n.d	n.d.
Belize	0.4	0.6	0.9	1.0	–37.1	45.8	37.1	14.4	8.7
Guyana[c]	0.2	0.3	0.2	0.1	–10.5	34.7	–20.1	–31.9	n.d.
Haiti[c]	0.1	0.1	0.1	0.1	–74.6	6.1	–30.3	n.d	n.d.
Jamaica[d]	2.0	2.9	4.5	5.2	–54.7	46.8	55.5	16.7	4.5
Suriname[b]	0.1	0.1	0.1	0.2	–36.3	–1.9	46.3	20.3	16.2
Trinidad and Tobago[b]	0.4	0.4	0.9	1.2	–46.4	5.4	99.0	30.3	9.0

Source: IDB Integration and Trade Sector based on the IMF, WTO, UNCTAD, and national sources.
Note: Growth rates are approximated based on the sample of available data. This sample is always smaller for 2024 than for previous years. n.d.: no data available. [a] The data for Mexico is from the Bank of Mexico. [b] The data for Barbados, Guatemala, Nicaragua, Suriname, and Trinidad and Tobago are exports of commercial services reported by the IMF (see Methodological Annex 3). [c] The data for the Bahamas, Barbados, Guyana, Haiti, and Venezuela is from the WTO. [d] The 2024 rate for Jamaica was estimated based on the export values of total services published by the IMG and the Central Bank of Jamaica.

growth rate accelerated from 7.7% to 11.0%, Central America's slowed from 14.8% to 12.0% due to lower growth in Costa Rica, Guatemala, Honduras, and Panama. The loss of momentum was more pronounced in South America (going from 12.9% to 7.6%) as several countries recorded declines in services exports in the first quarter (Argentina, Chile, Ecuador, and Paraguay), while growth slowed in Brazil and Uruguay. The exceptions to this trend were Bolivia, Colombia, and Peru, where external sales in 2024 improved relative to the 2023 average. Preliminary data for a sample of Caribbean companies also reveals a slowdown in the early months of 2024 due to weaker export growth in Belize, Jamaica, Suriname, and Trinidad and Tobago.

Trade in services continued to expand in the region.

The 12.2% increase in services exports in 2023 was primarily driven by the travel sector (8.1 p.p.), as tourism continued to bounce back after the pandemic. KBSs[31] contributed more than transportation (2.8 p.p. vs. 0.6 p.p.) as the latter was affected by the fall in the value of trade in goods (Figure 11). Based on data available for a sample of countries,[32] services exports rose by 9.5% in the first quarter of 2024, again driven by positive contributions from the travel sector (6.4 p.p.), followed by KBSs (1.7 p.p.) and transportation (1.3 p.p.).

The travel sector drove export growth.

From a medium-term perspective, exports of KBSs from LAC have grown at an average annual (a.a.) rate of 4.7% over the past decade, outpacing the growth rate of goods exports (2.9% a.a.) and overall services (4.3% a.a.). In 2023, exports of KBSs exceeded 2019 pre-Covid levels by 37.0%, accounting for a third of the region's total services exports. Given the increasing dynamism of KBSs and their spillover effects on the broader economy, the thematic chapter of this edition of the *Trade and Integration Monitor* provides a detailed, long-term analysis of their performance. It examines internal and external drivers of competitiveness and discusses regulatory implications that should be front and center in regional policymaking.

Signs of fragility in the recovery

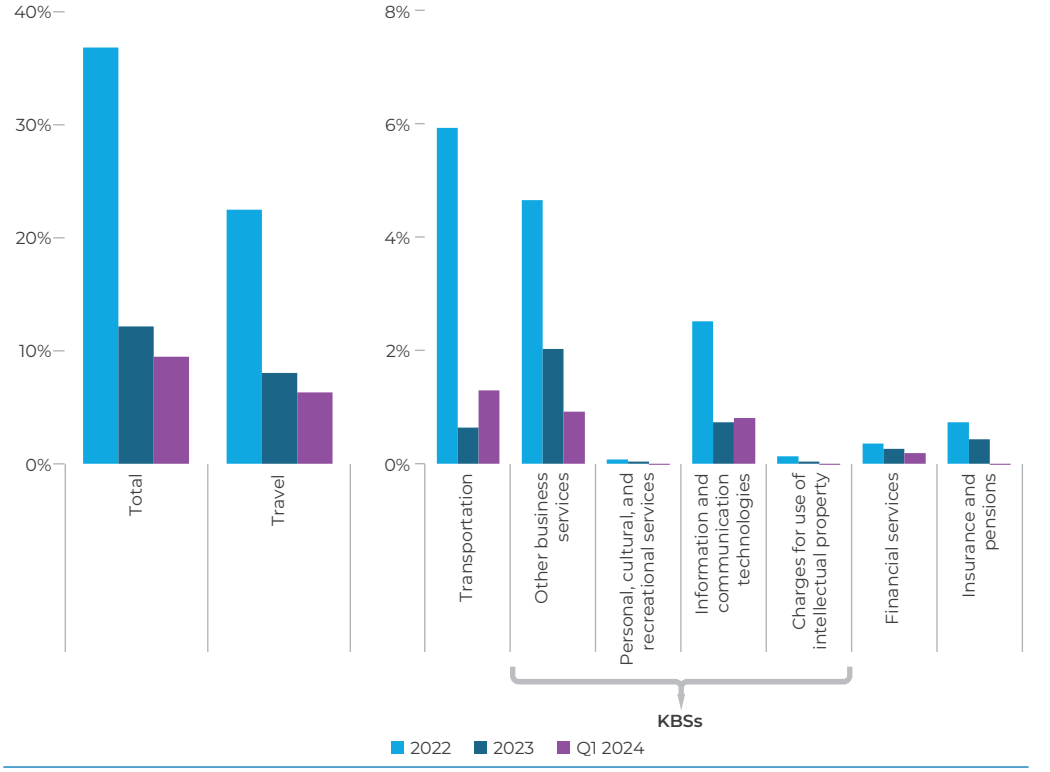
The models presented below provide insights for gauging the trend in LA's exports in the coming months. The first model is the IDB's Latin American Trade Leading Index (LATLI), which forecasts potential turning points in the growth trend for LAC export values (Figure 12). The second is the Latin American

The outlook for trade remains highly uncertain.

[31] This includes charges for the use of intellectual property; personal, cultural, and recreational services; information and communication technologies; and other business services.

[32] The sample includes 18 countries that accounted for 90% of the region's total service exports in 2023.

FIGURE 11 • SERVICE EXPORTS FROM LATIN AMERICA AND THE CARIBBEAN BY SECTOR
(Year-on-year growth rate, percentages and percentage points, 2022–Q1 2024)



Source: IDB Integration and Trade Sector based on IMF.
Note: The total is expressed in percentages, and the sector data in percentage-point contributions to the total variation. The breakdown is based on a sample of countries that provide disaggregated data by sector and that account for around 90% of exports in 2023. KBSs: knowledge-based services.

Trade Nowcasting Index (LATNI), which uses a nowcasting prediction methodology to estimate the instantaneous growth rate of export values in recent months for which no observed data is yet available.[33] Both indicators suggest that the recovery observed in the first half of 2024 is still fragile.

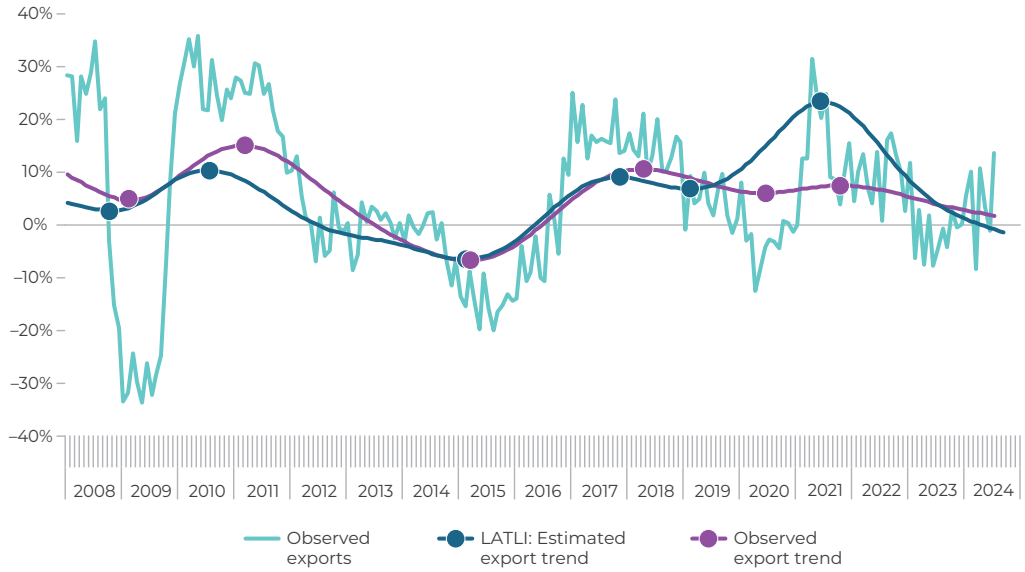
According to the LATLI (Figure 12), the trend in export values is not expected to change until at least March 2025.[34] The latest estimate of the LATLI does not suggest that a turning point will occur in the six months following the last

There are no signs of a solid export recovery.

[33] The nowcasting model provides an estimate of the export growth rate for periods for which official records were not yet available for all countries in the region at the time of writing (in this edition, August and September 2024), as this data is generally released with a one- to two-month lag. For a detailed description of the two indicators and the data and estimation methodology used, see Giordano et al. (2019 and 2021).

[34] The timeframe for which the prediction is valid is the average lead of the index with respect to the variation observed in export data since 2008. In the most recent estimate, which uses data through September 2024, the average lead was six months, so the model allows a change in the trend to be forecast through March 2025.

FIGURE 12 • CHANGES IN THE TREND OF THE VALUE OF GOODS EXPORTS FROM LATIN AMERICA
(Year-on-year growth rate and LATLI index, 2008–2024)



Source: IDB Integration and Trade Sector and authors' estimations.
Note: The leading index series shows the trend after the Hodrick-Prescott filter was applied. The circles indicate the turning points in the trend for the estimated series and the observed value of LAC exports.

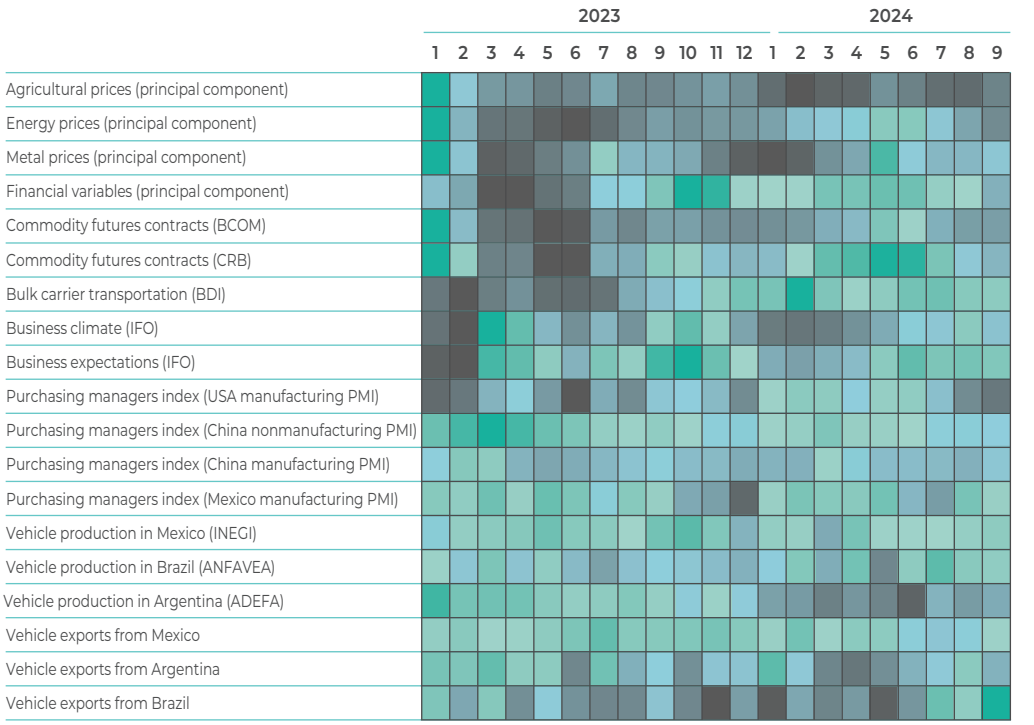
observation of official data in September 2024, predicting that goods exports have not yet returned to a robust growth path. The absence of signs of a solid recovery is consistent with the uneven performance of subindices that are highly correlated with LAC goods exports, which are used as components of the LATLI (Figure 13). These indicators show significant volatility and disparity. For instance, while several commodity price indicators improved in the second quarter, they have deteriorated in recent months. Meanwhile, the automotive industry appears to be recovering, especially in Mexico and Brazil.

On the other hand, the LATNI enables the year-on-year change in LAC exports to be estimated for August and September 2024, months for which official export records were not available at the time of print. The preliminary data suggests that the region's exports may have grown by around 13.5% year-on-year in July, far above the estimates of rates between –1.0% and 0.0% for August and between –1.0% and 3.0% for September (Figure 14). In short, while the LATLI does not predict a change in the trend, the LATNI forecasts a possible downturn in export performance during the third quarter relative to the first half

The export performance is expected to decline in the coming months.

FIGURE 13 • COMPONENTS OF THE LATLI INDEX FOR EXPORTS FROM LATIN AMERICA

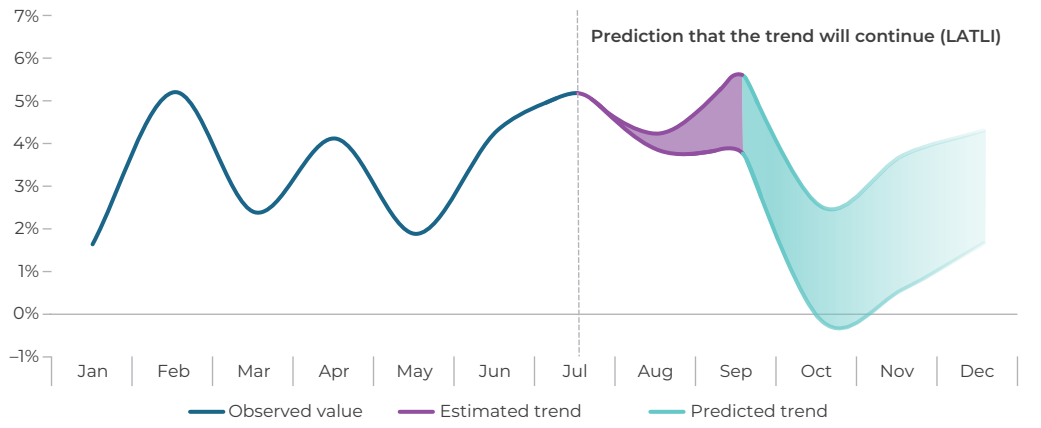
(Year-on-year growth rate, percentages, 2023–2024)



Source: IDB Integration and Trade Sector and authors' estimations.
Note: The colors represent the range of growth rates, from the lowest (gray) to the highest (green), with the midpoint (light blue) at 0%. In the case of the PMI, the midpoint is the critical threshold of 50. For a detailed description of the estimation methodology, see Giordano et al. (2019 and 2021).

FIGURE 14 • ESTIMATED VARIATION IN THE VALUE OF EXPORTS FROM LATIN AMERICA

(Quarterly moving average of the year-on-year growth rate, percentages, 2024)



Source: IDB Integration and Trade Sector and authors' estimations.
Note: The projection of continued contraction is based on the leading index (LATLI), while the estimated growth rate is based on the nowcasting model (LATNI). The projected values assume no extraordinary boosts to export growth.

of the year. As a result, only moderate growth in the region's exports is expected by the close of 2024, driven primarily by the positive performance of the first few months of the year. However, high levels of uncertainty surround forecasts for the coming months.

In conclusion, from 2023 through the first half of 2024, LAC's goods trade rebounded from the previous year's, outperforming global trade. Although the growth of services exports slowed slightly, they nonetheless continued to expand steadily. Goods exports rose, driven mainly by increased volumes, especially from South America, against a backdrop of increasingly stable export prices. However, amid a global environment featuring various types of uncertainties and downside risks, the outlook for LAC trade remains fragile, and forecast models suggest that the recovery has not yet moved on to a path of sustained growth. The next chapter explores the performance of individual LAC countries' exports in both global and intraregional markets and provides an assessment of subregional integration agendas.

3 The Dynamics of Extra- and Intraregional Trade

Following a contraction in 2023, exports from Latin America and the Caribbean bounced back in the first half of 2024, driven by extraregional demand. China and the United States led external demand, while exports to the European Union and within the region itself continued to contract. The recovery in exports to other global markets proved critical: sales were particularly strong to India, several other ASEAN economies, and the Middle East. In contrast, intrabloc trade weakened across nearly all integration schemes, except in Central America. The synthetic integration indicator showed a decline in Latin America and the Caribbean amid a broader global downturn. Progress on the internal and external agendas of the region's main integration blocs came primarily in areas such as trade, the environment, digitalization, gender, and transportation.

This chapter analyzes the evolution of external demand from LAC's main trading partners in 2023 and the first half of 2024. Next, it explores the performance of extra- and intraregional exports[35] from the perspective of the main subregional integration blocs—the Pacific Alliance (PA), Central America and the Dominican Republic (CADR),[36] the Andean Community (AC), the Caribbean Community (CARICOM),[37] and

[35] In this chapter, "intraregional exports" refer to exports to trading partners in LAC, while "intrazone exports" or "intrabloc exports" refer to exports to other members of the respective integration schemes.

[36] Although the Central American countries and the Dominican Republic do not form an institutionalized integration scheme, they are analyzed as a bloc due to the scale of trade flows among them and their shared trade ties with the US, their main trading partner, through the Dominican Republic–Central America–United States Free Trade Agreement (DR-CAFTA).

[37] See Methodological Annex 4 for the countries included in each group. Analyses by country of origin were only conducted for the integration blocs in LA. The Caribbean was excluded as an origin as comparable disaggregated data is not available for most countries. However, LAC as a whole is included as a destination market. A separate analysis is included for CARICOM countries for which data is available, namely Barbados, Belize, Guyana, and Suriname for the first half of 2024; the Bahamas and Trinidad and Tobago for the first quarter; and Jamaica through April.

the Southern Common Market. Finally, it summarizes the progress made on these blocs' institutional agendas.

External demand from trading partners

The global growth forecast stands at 3.2% for 2024 and 2025, amid a context of uncertainty.[38] Growth prospects for LAC's major trading partners generally remain weak, confirming the lack of signs of a sustained recovery in demand for the rest of 2024 and 2025. GDP growth is expected to slow in the US and China, key drivers of LAC exports in recent years, while Europe and LAC itself are poised for modest rebounds. In the US, average growth in 2024 is expected to remain close to 2023's (2.8 and 2.9%, respectively) before slowing to 2.2% in 2025 due to lower private consumption levels and a cooling labor market. GDP growth in China is expected to slow from 5.2% in 2023 to 4.8% in 2024, driven by the recovery in exports, slowing further to 4.5% in 2025. Growth in the Eurozone seems to have bottomed out after stagnating at 0.4% in 2023. It is forecast to reach only 0.8% in 2024 and 1.2% in 2025, supported by a recovery in private consumption, real wages, and investment as financial conditions improve. Finally, after expanding by 2.2% in 2023, LAC GDP is set to slow to 2.1% in 2024—with diverging growth paths in the region's two largest economies, Brazil (3.0%) and Mexico (1.5%)—before climbing to 2.5% in 2025.

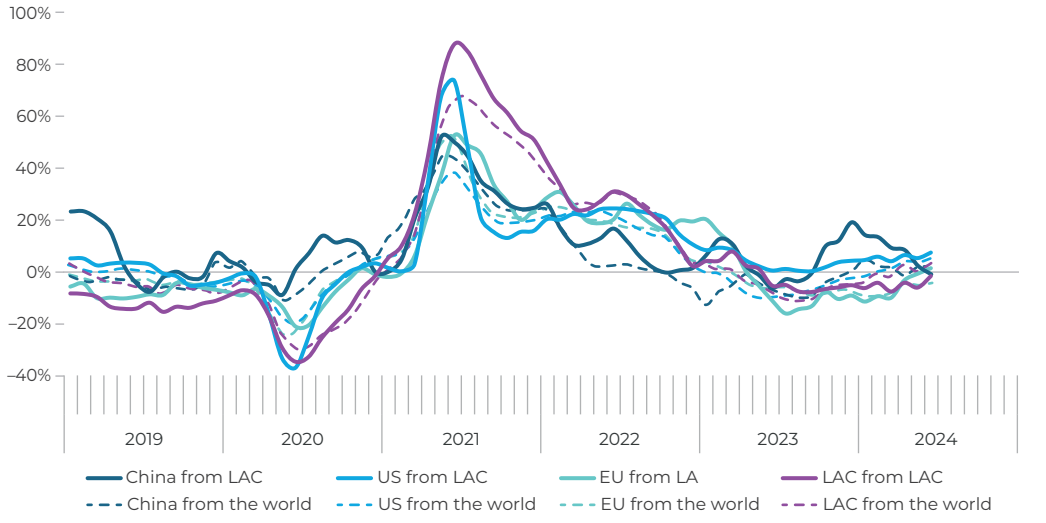
Growth weakened among LAC's main trading partners.

Weak growth among LAC's main trading partners impacted external demand from these economies. In 2023, total imports contracted in the United States (–6.0%), China (–5.6%), the EU (–5.7%), and LAC (–6.1%) (Figure 15). However, the trend reversed in the second half of the year, and data for the first half of 2024 suggests a rebound in the US (3.1%) and China (1.4%), while imports continued to decline in the EU (–6.3%) and stagnated in LAC (0.6%). Nevertheless, these economies' purchases from LAC performed better than those from the rest of the world during both periods, with a few exceptions. US imports from LAC increased by 3.1% in 2023 and 5.4% in the first half of 2024, raising the region's market share by 2.4 p.p. to 20.6%. In parallel, China's imports from LAC grew by 4.7% in 2023 and 3.4% in the first half of 2024, prompting a 0.9 p.p. increase in the region's share of Chinese imports, which reached 9.4% of the total. Conversely, EU imports from LAC saw declines in both periods (–6.8% and –4.4%, respectively) on par with the contraction in overall EU imports, leaving LAC's market share unchanged. Finally, intraregional imports within LAC fell by 3.0% in 2023, a decline that deepened

LAC gained market share in its main trading partners.

[38] See IMF (2024b).

FIGURE 15 • TREND IN THE VALUE OF IMPORTS FROM SELECTED ECONOMIES
(Quarterly moving average of the year-on-year growth rate, percentages, 2019–2024)



Source: IDB Integration and Trade Sector based on the US International Trade Commission (USITC), Eurostat, China Customs, IMF, and national sources.
Note: For China, the US, and LAC, the imports reported are the aggregate for LAC, while for the EU they are the aggregate for LA only.

to –5.1% in the first half of 2024.[39] As a consequence, the region itself was the only destination where LAC lost market share, as is examined in more detail below.

Extra- and intraregional exports

Extraregional demand drove the region's export performance.

Extraregional trade flows account for the majority of overall trade in LA and thus play a crucial role in shaping the region's export trends. After declining in 2023 (–1.3%), LA's exports recovered in the first half of 2024 (2.9%), largely driven by a reversal in the performance of extraregional shipments (from –0.7% to 4.1%). Specifically, exports to the rest of the world[40] surged by 9.7% in the first half of 2024 after plummeting by an average of 11.4% in 2023 (Table 4). The ongoing expansion of exports to the US and China further supported this growth, even as demand from China began to lose steam. In contrast, exports to the EU and within the region itself continued to decline.

[39] The import data analyzed in this section originates in the import records of the countries in question and thus differs from the exports recorded by national sources for the LA countries discussed in the rest of this report, particularly later in this chapter. This difference is due not just to the sources used, but also to the lag between the times that exports and imports are recorded.

[40] The most noteworthy destinations included India, ASEAN countries, and various economies in the Middle East.

TABLE 4 • EXPORTS FROM LATIN AMERICA TO MAIN TRADING PARTNERS BY INTEGRATION BLOC
(Year-on-year growth rate, percentages, 2023–S1 2024)

			Extra-LAC				
Origin	**LAC**	**Extra-LAC**	**US**	**EU**	**China**	**RoW**	**Total**
			2023				
Latin America	**–4.9**	**–0.7**	**3.3**	**–8.0**	**6.4**	**–11.3**	**–1.3**
PA	–8.7	1.5	3.4	–0.8	–0.5	–5.9	–4.6
AC	–12.3	–4.2	–7.7	–5.1	9.0	–10.9	–6.3
CADR	–2.6	–1.7	0.1	–3.3	–14.2	–3.7	–2.0
MERCOSUR	0.8	–4.9	–3.5	–13.2	13.1	–14.6	–3.6
			S1 2024				
Latin America	**–4.5**	**4.1**	**3.4**	**–1.9**	**3.6**	**9.7**	**2.9**
PA	1.5	2.5	2.6	–8.2	3.5	7.0	2.1
AC	6.4	1.7	2.6	–7.5	–1.2	8.8	2.8
CADR	0.0	–4.3	2.2	–8.4	–58.1	–13.5	–3.0
MERCOSUR	–9.5	7.5	11.9	0.4	5.1	11.9	3.5

Source: IDB Integration and Trade Sector based on official national sources.
Note: RoW: Rest of the world.

The US and China supported exports.

While trade with the US and China contributed positively to LA's overall export performance between 2023 and the first half of 2024, the trend varied significantly across LA subregions. In 2023, the US only boosted exports from the PA and CADR. In the first half of 2024, US demand had a positive effect on export growth across all blocs, but its role was only pivotal in the PA (through its effect on Mexico). China was the driving force behind the growth in exports from other PA countries, while also making a smaller contribution to MERCOSUR's performance. However, it fell short of boosting exports from the AC and continued to have a negative influence on CADR. In contrast, the EU's contribution to export growth was negative for all blocs across both periods, except for MERCOSUR, where it remained essentially neutral in the first half of 2024.

Intraregional trade continued to decline.

The intraregional trade coefficient reached 14.6% in 2023 before dropping to 13.7% in the first half of 2024. This outcome was due to a continuous contraction in intraregional flows amid a recovery in trade with extraregional partners (Table 5). However, the decline in intraregional trade in the first half of 2024 owed primarily to the contraction within MERCOSUR and, to a lesser extent, the PA. Conversely, the AC and CADR saw slight recoveries.

Within the subregional integration schemes, the importance of intrabloc trade in 2023 was greater for CADR (22.7%) and MERCOSUR (11.2%) than for the PA (2.1%), due

TABLE 5 • INTRAREGIONAL AND INTRABLOC TRADE COEFFICIENTS
(Share of intrabloc exports and exports to LAC in the total, percentages, 2023 and S1 2024)

	2023		S1 2024	
	Intrabloc	LAC	Intrabloc	LAC
Latin America		**14.6**		**13.7**
PA	2.1	7.6	2.1	7.5
AC	6.0	23.9	5.4	24.3
CADR	22.7	31.3	22.8	31.4
MERCOSUR	11.2	22.7	10.1	20.5

Source: IDB Integration and Trade Sector based on official national sources.
Note: "Intrabloc" refers to exports to other members of the same subregional trade bloc. The Caribbean was excluded as an origin due to the lack of comparable disaggregated data.

to the weight of Mexican exports to the US. Although the AC accounts for only a small share of its own exports (6.0%), LAC as a whole is much more important (23.9%). The intraregional coefficient increased slightly in CADR and remained stable in the AP in the first half of 2024, but weakened in the AC and MERCOSUR.

Intrabloc trade lost momentum in the first half of 2024.

Developments in regional integration

The following section discusses trends in intra- and extraregional trade flows in the various integration blocs and the countries that comprise them (Table 6). It also summarizes progress on regional integration, measured across various dimensions using a synthetic indicator (Box 5), presents the main lines of work of the blocs' internal and external agendas, and evaluates progress therein (Boxes 6 to 10).

Pacific Alliance

PA exports continued to show strong growth outside the region.

The 0.6% stagnation in PA exports in 2023 was due to an 8.7% decrease in shipments to the rest of LAC, which was offset by a 1.5% increase to markets outside the region (Table 6). Noteworthy features included higher sales of vehicles from Mexico to the US and increased shipments of copper from Peru to China, which were partially countered by lower exports of oil from Colombia to the US and of mining products from Chile to China. Intrabloc trade fell by 14.4% in 2023, mainly because of a drop in exports of Mexican manufactures to the three other PA economies and in Colombian oil exports to Chile.

TABLE 6 • EXPORTS TO MAIN TRADING PARTNERS BY COUNTRY AND INTEGRATION BLOC

(Year-on-year growth rate, percentages, 2023–S1 2024)

	Intra-LAC		Extra-LAC					
Origin	**Intrabloc**	**LAC**	**Extra-LAC**	**US**	**EU**	**China**	**RoW**	**Total**
				2023				
PA	**–14.4**	**–8.7**	**1.5**	**3.4**	**–0.8**	**–0.5**	**–5.9**	**0.6**
Chile	–10.7	–4.5	–4.0	5.8	–3.4	–4.8	–8.3	–4.1
Colombia	–8.1	–12.8	–12.4	–9.1	–14.7	15.2	–19.5	–12.5
Mexico	–24.0	–8.9	3.2	3.7	4.0	–7.1	–0.2	2.6
Peru	–8.0	–6.0	2.9	6.6	2.5	9.1	–6.8	1.6
CADR	**–2.3**	**–2.6**	**–1.7**	**0.1**	**–3.3**	**–14.2**	**–3.7**	**–2.0**
Costa Rica	12.1	6.8	19.0	20.3	16.2	19.3	18.4	15.5
El Salvador	–4.0	–2.9	–15.3	–16.2	–17.6	–72.3	16.7	–8.7
Guatemala	–2.6	–3.0	–15.1	–10.2	–6.9	–80.1	–20.3	–9.4
Honduras	–8.0	–8.0	–7.0	–6.1	–12.4	7.7	–2.8	–7.3
Nicaragua	–12.1	–6.6	–0.2	–6.2	–16.0	18.7	62.3	–2.4
Panama	–4.8	5.3	–8.6	17.0	–15.3	10.0	–23.6	–7.8
Dominican Rep.	–16.7	–10.4	–2.9	3.1	–18.3	–12.4	–10.4	–3.6
AC	**–10.8**	**–12.3**	**–4.2**	**–7.7**	**–5.1**	**9.0**	**–10.9**	**–6.3**
Bolivia	–20.7	–26.3	–15.6	–36.2	–36.2	60.9	–24.1	–20.6
Colombia	5.3	–12.8	–12.4	–9.1	–14.7	15.2	–19.5	–12.5
Ecuador	–8.3	–7.8	–3.5	–18.0	10.0	–2.1	10.2	–4.7
Peru	–21.1	–6.0	2.9	6.6	2.5	9.1	–6.8	1.6
MERCOSUR	**5.0**	**0.8**	**–4.9**	**–3.5**	**–13.2**	**13.1**	**–14.6**	**–3.6**
Argentina	–5.0	–5.7	–33.6	–16.0	–36.8	–34.2	–35.8	–24.5
Brazil	8.3	0.8	1.8	–1.3	–9.1	16.5	–4.7	1.7
Paraguay	26.0	23.5	7.6	7.8	18.3	136.4	0.6	19.3
Uruguay	–9.0	6.3	–27.8	–6.5	7.5	54.1	–66.1	–17.6
				S1 2024				
PA	**–0.8**	**1.5**	**2.5**	**2.6**	**–8.2**	**3.5**	**7.0**	**2.5**
Chile	–3.9	1.4	1.4	–10.3	14.3	6.3	–2.3	1.4
Colombia	0.4	5.4	–6.6	8.0	–41.9	9.5	–2.7	–2.9
Mexico	–2.9	–1.4	2.8	3.1	–8.5	–5.6	7.3	2.6
Peru	4.4	2.3	8.1	–12.9	7.7	3.0	27.9	7.2
CADR	**1.0**	**0.0**	**–4.3**	**2.2**	**–8.4**	**–58.1**	**–13.5**	**–3.0**
Costa Rica	3.5	–0.1	9.3	11.0	10.9	40.0	–1.9	6.7
El Salvador	–2.6	–0.8	–13.5	–11.9	–33.0	573.3	–34.0	–6.7
Guatemala	2.7	1.9	–3.6	3.0	–28.8	–38.7	4.1	–0.9

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TABLE 6 • EXPORTS TO MAIN TRADING PARTNERS BY COUNTRY AND INTEGRATION BLOC
(Year-on-year growth rate, percentages, 2023–S1 2024) *(continued)*

	Intra-LAC		Extra-LAC					
Origin	**Intrabloc**	**LAC**	**Extra-LAC**	**US**	**EU**	**China**	**RoW**	**Total**
Honduras	–1.0	–3.7	–5.9	–1.7	–17.6	236.1	–19.5	–5.3
Nicaragua	0.3	3.1	–2.8	–11.0	13.7	81.2	25.1	–0.9
Panama	6.5	0.2	–78.1	28.7	–65.1	–96.6	–77.8	–73.6
Dominican Rep.	–2.4	–5.3	3.9	7.1	4.0	37.3	–6.9	3.1
AC	**–2.9**	**6.4**	**1.7**	**2.6**	**–7.5**	**–1.2**	**8.8**	**2.8**
Bolivia	–16.6	–20.3	–22.9	17.7	51.7	–22.2	–35.6	–21.8
Colombia	–3.6	5.4	–6.6	8.0	–41.9	9.5	–2.7	–2.9
Ecuador	10.6	30.5	6.1	9.8	25.3	–15.7	11.5	11.8
Peru	–1.7	2.3	8.1	–12.9	7.7	3.0	27.9	7.2
MERCOSUR	**–12.2**	**–9.5**	**7.5**	**11.9**	**0.4**	**5.1**	**11.9**	**3.5**
Argentina	7.2	6.6	19.0	9.2	3.4	32.7	22.6	14.0
Brazil	–29.9	–19.3	5.9	11.9	0.5	4.0	8.8	1.4
Paraguay	5.9	3.5	–7.9	27.6	–24.9	–33.4	–5.9	1.2
Uruguay	0.4	–3.2	9.8	28.5	–11.2	–15.9	30.2	5.3

Source: IDB Integration and Trade Sector based on official national sources.

BOX 5 • SETBACKS IN REGIONAL INTEGRATION

The IDB's aggregate regional integration index for LAC measures economic integration and enables comparisons with similar processes in other regions of the world. The indicator encompasses four core dimensions of regional integration: trade, productive, physical, and institutional integration (Table).[a]

In 2023, the aggregate regional integration indicator recorded declines compared to the previous year across all world regions analyzed. However, the most pronounced drop was in LAC (–2.4%). Its aggregate index places it among the least integrated regions in the world, behind Africa, Asia, and especially Europe (Panel a).

The index also fell in Africa (–1.6%), Asia (–0.9%), and Europe (–0.9%), reflecting the increasing global fragmentation of recent years (Panel b). However, the factors underlying this decline varied by region. Improvement in the institutional dimension was a common factor across all regions except LAC, where it remained unchanged. Productive integration, which is measured through the intraindustry trade index and the share of trade in intermediate goods within each region, deteriorated across the board and contributed significantly to the decline in the aggregate measure in Europe. The trade dimension only improved in LAC, and it fell in Asia due to the smaller number of products being traded. Lastly, physical integration was the primary driver of the decline in the aggregate score for Africa, but this dimension also fell in Europe and LAC. This dimension is made up of two indicators: the UNCTAD Liner Shipping Connectivity

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BOX 5 • SETBACKS IN REGIONAL INTEGRATION *(continued)*

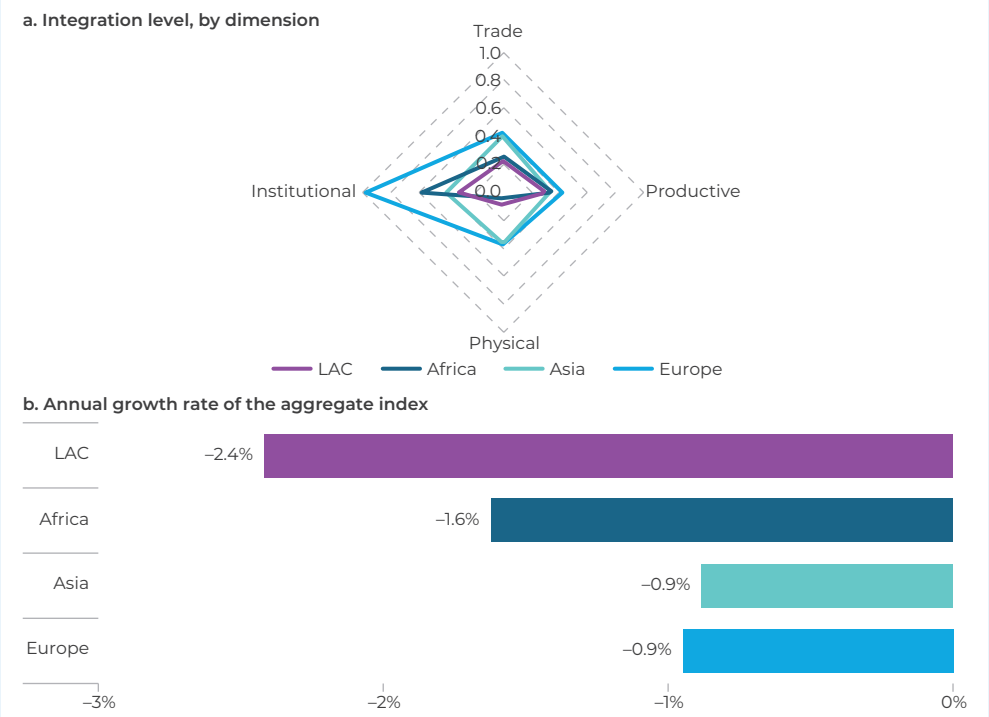
DIMENSIONS AND SUBINDICATORS OF THE ECONOMIC INTEGRATION INDICATOR

Trade	Intraregional share of exports of goods
	Intraregional share of imports of goods
	Intraregional trade intensity index
	Number of products exported intraregionally
Productive	Intraregional intraindustry trade index
	Intraregional share of intermediate goods exports
	Intraregional share of intermediate goods imports
Physical	Liner shipping connectivity index
	Index of the quality and extent of transportation infrastructure
Institutional	Share of LAC countries with which trade agreements are in force
	Share of LAC countries with which investment agreements are in force
	Share of LAC countries with which double taxation agreements are in force

Source: IDB Integration and Trade Sector.

Index and the infrastructure pillar of the International Institute for Management Development's World Competitiveness Ranking. While the former improved across all regions, in the latter, the rankings of most countries in Africa, Europe, and LAC with available data dropped in 2023 compared to 2022.

ECONOMIC INTEGRATION INDEX
(Selected regions, 2023)



Source: IDB Integration and Trade Sector.

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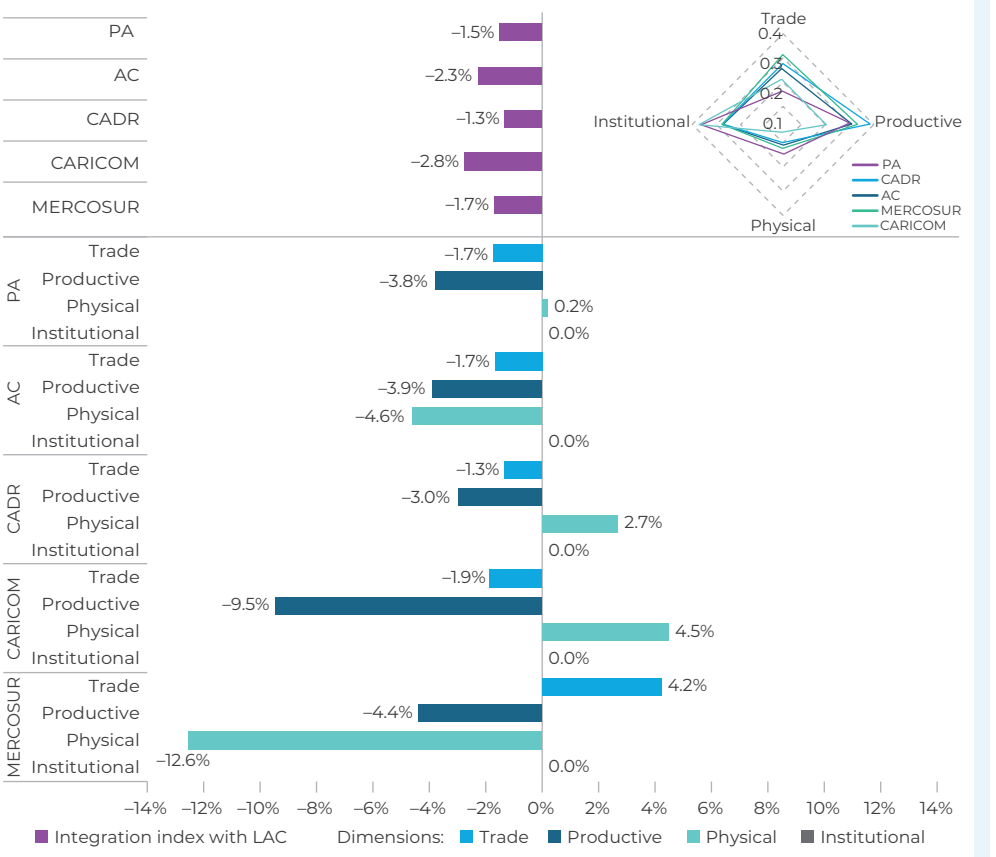
BOX 5 • SETBACKS IN REGIONAL INTEGRATION *(continued)*

The decline in the indicator for LAC is primarily due to a deterioration in the physical and productive dimensions. Starting with physical integration, nearly every country in LAC with available data moved down the infrastructure ranking, despite their maritime connectivity subindicators improving. This indicates that investments in both domestic and international infrastructure did not progress at the same pace as in other regions that LAC competes with in global markets. Turning to productive integration, the region's poor performance was largely driven by a drop in the subindicator for imports of intermediate goods. In the trade integration dimension, there was a modest gain due to increased intraregional imports and, to a lesser extent, trade intensity, but this fell short of offsetting declines in the number of products traded and intraregional exports. There were no changes to the institutional dimension, as the number of new trade, tax, or investment agreements captured by the indicator remained steady.[b] Nevertheless, LAC's subindicators for the institutional dimension are weaker than those of other regions. In 2023, LAC's score for this area was 0.31, while Africa's was 0.58, and Asia's was 0.41. The region is also a

DIMENSIONS OF ECONOMIC INTEGRATION IN LATIN AMERICA AND THE CARIBBEAN BY BLOC
(Growth rate and level, by dimension, 2023)



Source: IDB Integration and Trade Sector.

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BOX 5 • SETBACKS IN REGIONAL INTEGRATION *(continued)*

long way from the European economies' score of 0.98, which reflects the extensive coverage of agreements within the EU.

At the subregional level, there were drops in the integration metrics between all blocs and the rest of LAC,[c] with the most significant declines seen in CARICOM and the AC (Figure). This deterioration in integration across all blocs reflects a widespread decline in the physical, trade, and productive dimensions, with some exceptions. None of the blocs saw institutional progress, as measured by the number of new agreements in force. The productive dimension fell across all blocs due to reduced trade in intermediate goods, while only MERCOSUR recorded an improvement in the trade dimension as a result of higher levels of intraregional exports and trade intensity. The scores for physical integration were more varied. This dimension declined significantly in MERCOSUR, and to a lesser extent in the AC, due to Argentina, Brazil, Colombia, and Peru moving down the infrastructure ranking. Physical integration improved in CARICOM and CADR, driven by better maritime connectivity, but remained stable in the PA, where Chile was the only country to improve its infrastructure ranking, balancing out declines in the other member countries.

[a] The methodology used to construct the indicator is explained in detail in Giordano et al. (2021), which also analyzes its long-term evolution. Specific details on the update included in this edition are explained in Methodological Annex 5.
[b] It should be clarified that the agreements subindicators only track the entry into force of new agreements and thus do not reflect updates and/or the deepening of existing agreements. In other words, the indicator does not show changes to existing trade agreements that further deepen or expand trade relations among LAC countries.
[c] The reading described in this paragraph reflects relations between the member countries of each bloc and all other LAC countries, not just their partners within a specific integration scheme.

In the first half of 2024, total PA exports rose by 2.5%, driven by sales outside LAC (2.5%), while intraregional exports recovered slightly (1.5%). Highlights in the bloc's performance include Mexico's automotive sector sales to the US, Chile's copper sales to China, and Peru's gold exports to India and Japan, while Colombia's oil shipments to the EU declined. Intrabloc trade within the PA fell by 0.8% in the first half of 2024 as a result of Mexico's lower sales to its three PA partners and downturns in Chile and Colombia. Box 6 summarizes key work areas and progress on the PA's internal and external integration agendas.

Central America and the Dominican Republic

The CADR's total exports fell by 2.0% in 2023, with declines in sales to LAC, the EU, China, and the rest of the world. These were only partially offset by increased shipments to the US, particularly of medical inputs and supplies from Costa Rica's STRs. There was a 2.3% decline in sales within the bloc in 2023, as increases in Costa Rica's food exports

Central America's exports contracted despite growing US demand.

BOX 6 • THE PACIFIC ALLIANCE INTEGRATION AGENDA

Internal agenda—Over the past 18 months, the PA's integration agenda has focused on women's roles in leadership positions, rural enterprises, and fisheries and aquaculture. Other core areas include climate policy, digital skills, student mobility, sustainable tourism, coordination between the public and private sectors, and the promotion of micro, small, and medium-sized enterprises (MSMEs). The bloc's most notable developments include the entry into force of the Convention on Double Taxation in January 2024, which was the result of the convergence of existing bilateral agreements among the four countries to standardize the way that pension funds and interest on capital gains from stock transactions conducted within the Integrated Latin American Market are taxed. The new convention seeks to boost institutional investor participation in PA capital markets. A strategy to attract tourism investment was also introduced, along with a 2024–2025 action plan. The bloc also launched its Social Observatory, Public Procurement Observatory, and the PA Digital platform, which were created in collaboration with the IDB. The Social Observatory is an online tool for compiling, organizing, managing, and publishing up-to-date information from the social sector to support the design and strengthening of public policies. The Public Procurement Observatory aims to generate knowledge by gathering data and carrying out analyses, studies, or diagnostic exercises on topics relating to public procurement that are of interest to the private sector, academia, and civil society. The PA Digital platform is a space for business-oriented social networking that enables users to access procurement announcements, business contacts, courses, articles, videos, and other content aimed at fostering the growth and internationalization of MSMEs. Lastly, one notable regulatory change within the PA is that, as of May 2024, Peruvian nationals are required to obtain a visa to enter Mexico for tourism and business purposes.

External agenda—The most significant advances on the bloc's negotiation agenda include the first meeting between representatives of the PA and Costa Rica. The meeting took place in mid-2024 to launch the process of Costa Rica joining the bloc. At the same time, member countries continued to actively pursue their bilateral trade negotiations. Specifically, Chile made progress on updating several of its agreements. It signed a new version of its agreement with the EU, updated its Services Agreement with Hong Kong, and began similar negotiations with the European Free Trade Association (EFTA) and Mexico. It further concluded a free trade agreement (FTA) with the United Arab Emirates, made progress on talks toward an agreement with South Korea and a Partial Scope Agreement (PSA) with Trinidad and Tobago, signed an additional protocol to the existing Comprehensive Economic Partnership Agreement with Indonesia on trade in services, and formally requested entry into the Regional Comprehensive Economic Partnership. Colombia enacted a PSA with Venezuela, signed a Comprehensive Economic Partnership Agreement with the United Arab Emirates, and applied for associate membership in CARICOM. Peru finalized negotiations toward an FTA with Hong Kong and made progress toward similar agreements with China and India.

were outweighed by declines in Honduras, Guatemala, El Salvador, and Nicaragua. Exports of textiles from Guatemala to El Salvador fell, as did Honduras's shipments of goods for processing to El Salvador, Guatemala, and Nicaragua.

In the first half of 2024, CADR exports continued to shrink (–3.0%), driven by a decline in shipments outside LAC (–4.3%) while those within the region stagnated (0.0%). Although exports to the US increased by 2.2% and intrabloc trade rebounded by 1.0%, this was not enough to offset drops to other destinations. The slight uptick in trade within the CADR was mainly due to increased exports from Costa Rica to Guatemala, Nicaragua, and El Salvador, as well as from Guatemala to various partners. Box 7 summarizes key work areas and progress on the CADR's internal and external integration agendas.

BOX 7 • THE INTEGRATION AGENDA IN CENTRAL AMERICA AND THE DOMINICAN REPUBLIC

Internal agenda—The major item on the agenda of the Secretariat for Central American Economic Integration (SIECA) concerned the Regional Master Plan for Mobility and Logistics 2035, which was approved in May 2023 and is now being promoted among investors, international organizations, and various national governments. A significant milestone was reached with the updating of the Central American Trade Facilitation and Competitiveness Strategy with an Emphasis on Coordinated Border Management (ECFCC-2023), which was approved by the Council of Ministers of Economic Integration in December 2023. National and regional workshops were held with support from the IDB to validate the contents and scope of this strategy. The ECFCC seeks to improve the efficiency of border controls through the implementation of a coordinated border management model. The second phase of the Central American Digital Trade Platform was launched within the ECFCC framework, providing technological infrastructure under the auspices and management of SIECA to streamline trade operations and data interoperability in the region. Since March 2024, sanitary and phytosanitary certificates have been transferred electronically among member states, replacing physical documentation requirements at integrated border posts. The Regulations on the Adoption and Recognition of Electronic Signatures were also approved as part of the SICA Regional Digital Strategy.

Progress was also made on the deep integration process between El Salvador, Honduras, and Guatemala, which aims to gradually establish a customs union and implement free movement for residents of the three states. Key advances progression include the implementation of the Advanced Goods Declaration at land border crossings between El Salvador and Guatemala at Las Chinamas–Valle Nuevo, Anguiatú–La Ermita, and San Cristóbal. This initiative allows for electronic processing of paperwork, faster document submission and approval, and streamlined tax payments, significantly reducing response times from Foreign Trade Single Windows and customs authorities. It will also reduce export costs, improve logistics, and enable advanced customs declarations to be filed around the clock from anywhere in the world. El Salvador and Honduras also began joint operations at the integrated border post in El Amatillo.

The IDB-funded integrated control center at Paso Canoas on the Costa Rica–Panama border was also officially opened. Using optimized digital processes, the dual-headquarters facility enables the two countries to carry out joint inspections at a single location. Since its opening,

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BOX 7 • THE INTEGRATION AGENDA IN CENTRAL AMERICA AND THE DOMINICAN REPUBLIC *(continued)*

cargo transit times have been slashed from hours to minutes, passenger processing times have been cut by half, and transportation costs reduced.

External agenda—The most notable achievement on the CADR external agenda was the full entry into force of the Association Agreement with the EU in April 2024, the trade pillar of which had been applied provisionally since 2013. Turning to the bloc's bilateral negotiations, Costa Rica signed trade agreements with Ecuador and the United Arab Emirates and joined the Global Trade and Gender Arrangement. Nicaragua ratified its FTA with China, which Honduras also advanced negotiations with. Meanwhile, Guatemala signed an agreement with South Korea.

Andean Community

Total AC exports fell by 6.3% in 2023, dragged down by reduced sales within and beyond LAC. Exports declined within the region and to the US (as a result of lower exports of oil from Ecuador and Colombia and of tin from Bolivia), the EU, and the rest of the world. In contrast, there was an increase in exports to China from Bolivia, Colombia, and Peru. The 12.3% drop in trade with the rest of LAC was largely explained by lower exports of natural gas from Bolivia to Argentina and Brazil. Intrabloc trade within the AC fell by 10.8% in 2023, driven by a decline in exports of soybean derivatives from Bolivia to Ecuador and Peru and lower sales from Peru: animal feed to Ecuador, iron to Bolivia, and copper to Colombia.

The decline in AC exports within and outside LAC reversed.

In the first half of 2024, total AC exports rallied by 2.8%, buoyed by increased sales outside LAC (1.7%), exclusively from Peru and Ecuador, and an overall rise in sales to the rest of LAC (6.4%). However, intrabloc trade fell by 2.9%, primarily due to lower sales of soybean byproducts from Bolivia to Colombia and Ecuador and animal feed from Peru to Ecuador. Box 8 summarizes key work areas and progress on the AC's internal and external integration agendas.

BOX 8 • THE ANDEAN COMMUNITY INTEGRATION AGENDA

Internal agenda—Among the bloc's priorities were institutional restructuring, convergence with other integration schemes, social and cultural integration, the revitalization of environmental issues, combating smuggling, and promoting tourism and trade. Key AC initiatives included the launch of the Disaster Risk Management Information Platform, which provides member states with information on progress on this matter, the first Andean Air Transportation Forum, and the

(continued on next page)

BOX 8 • THE ANDEAN COMMUNITY INTEGRATION AGENDA *(continued)*

signing of an agreement to establish the Regional Phytosanitary Intelligence Center, with the aim of preventing and controlling pest outbreaks. Members also agreed to reactivate the Andean Committee of Environmental Authorities and the Andean Council of Environment Ministers to promote the bloc's environmental agenda. In August 2023, member states unanimously elected Peruvian ambassador Gonzalo Gutiérrez Reinel as Secretary-General of the AC for the 2023–2028 term. Another milestone in the internal agenda was the renewed interest in electrical interconnection. The AC Commission approved a community regulation amending Decision 816, granting member states a transition period to bring their national laws in line with the new standard and the regulations governing it, paving the way for full electrical interconnection within the AC. This process also included approval of the regulations governing commercial matters, the appointment and functions of the regional coordinator, and operations. The latter stipulates the rules for electricity exchanges and sales, while the commercial regulations establish conditions and procedures for invoicing and settling payments for international electricity transactions, financial guarantees, calculation methodologies, and implementation procedures.

External agenda—Although there was no progress at the bloc level, some member countries saw a surge in bilateral activity. Ecuador implemented its FTA with China, signed agreements with Costa Rica and South Korea, began talks with Canada and the United Arab Emirates, and joined the Global Trade and Gender Arrangement. Colombia enacted a PSA with Venezuela, signed a Comprehensive Economic Partnership Agreement with the United Arab Emirates, and applied for associate membership in CARICOM. Peru finalized negotiations toward an FTA with Hong Kong and made progress toward similar agreements with China and India.

Southern Common Market

Extraregional demand for MERCOSUR exports rebounded.

In 2023, MERCOSUR exports contracted by 3.6% due to lower sales to the EU, the US, and the rest of the world. However, trade within the bloc expanded by 5.0%, driven by increased sales of Brazilian and Paraguayan soybeans to Argentina for processing, following a drought that reduced production in the latter.

In the first half of 2024, the decline in MERCOSUR exports reversed, growing by 3.5% thanks to a surge in shipments outside LAC (7.5%), which was partially offset by a drop within the region (–9.5%). Exports from all four member countries to the US grew, with Argentina and Brazil also increasing their sales to China, and all members except Paraguay expanding exports to other global markets, mainly to the Association of Southeast Asian Nations (ASEAN), the Middle East, and some African economies. In contrast, trade within MERCOSUR contracted by 12.2% in the first half of 2024, mainly because of a reduction in soybean exports

BOX 9 • THE MERCOSUR INTEGRATION AGENDA

Internal agenda—The new MERCOSUR Origin Regime was approved in July 2023, following negotiations that began in 2019. The new rules modernized the framework that had been in place since 2009. April 2024 saw the entry into force of the MERCOSUR Competition Policy Agreement, originally signed in December 2010. The objectives of the agreement are to foster cooperation and coordination in enforcing national competition laws within the bloc, provide mutual assistance on competition policy, ensure that member states consider each other's interests when applying their competition laws, and eliminate anticompetitive practices. In May 2024, nearly five years after the original agreement was signed, Argentina's Congress ratified the Agreements to Eliminate International Roaming Charges for MERCOSUR End-Users. Under this new arrangement, providers of mobile telephone, messaging, and data services must charge MERCOSUR end-users the same rates that apply to local users. Progress was also made on the MERCOSUR Coordinated Border Management project, a working group on intellectual property was created, and the Ad Hoc Working Group on MSMEs was reactivated to bolster the participation of MSMEs in the market. June marked the 10th Meeting of the MERCOSUR–Chile Origin Technical Group, the objective of which is to update the origin regime between the two parties. Talks toward modernizing the instrument began in 2021 with the aim of enhancing the benefits it could bring for industries and investments, better facilitating foreign trade, and simplifying control procedures, including differentiated treatment among member states. Lastly, Bolivia's Congress ratified the Protocol of Accession to MERCOSUR in June 2024, and the country formally joined the bloc 30 days later.

External agenda—Two milestones were reached in MERCOSUR's joint agenda as a customs union: the signing of an FTA with Singapore and a technical round with the European Free Trade Association aimed at concluding negotiations between the two parties.

from Brazil to Argentina, which reflected the high comparative base of the previous year. Box 9 summarizes key work areas and progress on MERCOSUR's internal and external integration agendas.

Caribbean Community

CARICOM's trade performance was weak.

Based on data for a sample of countries,[41] CARICOM exports fell by 13.7% in 2023, except in Guyana, where oil sales drove export growth. In the first half of 2024, the trend reversed, and the bloc's exports are estimated to have expanded by 20.0%, again

[41] At the time of publication, data for Caribbean countries was available for the first half of 2024 for Barbados, Belize, Guyana, and Suriname, through April 2024 for Jamaica, and for the first quarter of the year for the Bahamas and Trinidad and Tobago. The limitations of official records make it impossible to calculate aggregate figures for the Caribbean or distinguish between flows from the subregion to LA and those to the rest of the world.

BOX 10 • THE CARICOM INTEGRATION AGENDA

Internal agenda—CARICOM's priorities centered on the free movement of people, environmental sustainability, digital transformation, harmonization of business laws and mutual recognition, food security, and air and maritime transportation issues. Member countries made headway on negotiations to amend the Revised Treaty of Chaguaramas to guarantee all CARICOM nationals the rights to unrestricted travel, residence, and work in other member states. The CARICOM Secretariat also partnered with the Caribbean Agency for Justice Solutions to fast-track the digital transformation. The collaboration between these two institutions seeks to promote efficiency, cost savings, and accountability in regional administration through digital solutions.

External agenda—Noteworthy developments included Colombia's request to join CARICOM as an associate member and the signing of a Memorandum of Understanding between the CARICOM Development Fund and the African Export-Import Bank. This will create a framework for cooperation between the two organizations and improve the services available to CARICOM member states. There was limited progress on bilateral negotiations: Trinidad and Tobago continued talks toward a PSA with Chile, Guyana signed the CARIFORUM–United Kingdom Agreement, and Barbados joined the Americas Partnership for Economic Prosperity.

buoyed by Guyana's performance. Box 10 summarizes key work areas and progress on CARICOM's internal and external integration agendas.

In summary, increased extraregional demand was the driving force behind LAC's export recovery in the first half of 2024. However, trade flows within the region continue to shrink, causing the intraregional trade coefficient to drop from 14.6% in 2023 to 13.7% in the first half of 2024. The US and China continued to fuel the region's exports, complemented in the first half of 2024 by a resurgence in sales to the rest of the world, particularly India, ASEAN, and some Middle Eastern economies. In contrast, demand from the EU remained on a downward trend. Exports recovered in all LAC integration schemes except CADR, in all cases as a result of sales outside the region. Little progress was made on regional integration: the synthetic indicator declined at the global level and the drop was even sharper in LAC. Progress within the region's integration blocs included advances relating to trade, environmental matters, digitalization, gender, and transportation.

4

The Rise of Knowledge-Based Services

Over the past decade, exports of knowledge-based services from Latin America and the Caribbean have grown faster than those of goods and other services. During the pandemic, they proved resilient and helped to buffer the trade shock. However, over the longer term, the region's growth in this sector has trailed behind the rest of the world, with exports concentrated in less sophisticated segments that are vulnerable to the rise of artificial intelligence. To unlock the sector's potential for growth, Latin America and the Caribbean must address gaps in the main drivers of competitiveness, and overcome significant regulatory barriers that hinder access to external markets, particularly within the region itself.

Knowledge-based services (KBSs) include business, professional, technical, computer, and creative services that make intensive use of advanced technologies and/or skilled labor to leverage innovation. In these activities, knowledge plays a key role in value creation.[42] This chapter explores KBS trade in LAC, starting with a brief overview of global KBS flows before delving into LAC's export performance, looking closely at the specific challenges the region faces in expanding the sector.[43] It analyzes the internal factors underlying competitiveness, including the quality of institutions, human capital, connectivity infrastructure, and access to finance. It then provides an assessment

[42] While the concept of KBSs is widely used in the literature (OECD, 1999; López et al., 2014; Gayá, 2017; López and Ramos, 2017; López, 2018; Rozemberg and Gayá, 2019; Lachman and López, 2022), other terms are also employed to refer to these services or similar set of activities that fall under the "other business services" category in the balance of payments. Common alternative names include "knowledge-intensive services" (Gotsch et al., 2011; López and Ramos, 2013), "modern services" (ECLAC, 2017; Romero, 2018; Álvarez, Fernández-Stark, and Mulder, 2020), and "global services" (Quindimil, 2017; Uruguay XXI, 2017; Bermúdez, Ferreira, and Peña Capobianco, 2018; Peña Capobianco, 2021). These terms are often used interchangeably, but they are also often applied to mean different concepts depending on the availability of information, the country being studied, and the focus of the research in question. See Methodological Annex 3 for the full definition of KBSs used in this chapter.

[43] This chapter complements and updates several recent IDB studies on services in general, KBSs, and digital services. See Giordano et al. (2017 and 2019), Giordano and Ortiz (2021), INTAL/IDB (2022), and Andrian et al. (2024), among others.

of the regulatory obstacles and market access barriers affecting KBS export growth globally and within the region.

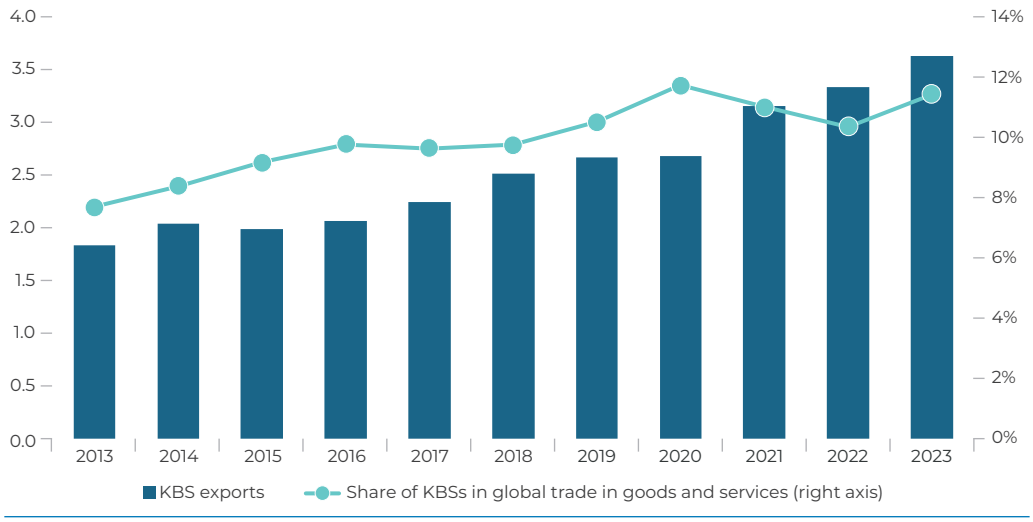
The growth of services in global and regional markets

KBSs have emerged as one of the fastest-growing sectors in the global economy. Between 2013 and 2023, world KBS exports grew at an average annual (a.a.) rate of 7.0%, reaching US$3.6 trillion. Because trade in KBSs expanded more rapidly than overall trade in goods and total services (2.3% and 4.9% a.a., respectively, in the same period), their share in total exports rose from 7.7% in 2013 to 11.5% in 2023 (Figure 16). Likewise, their relative weight in global trade in services increased from 37.5% to 46.0%. However, it is important to recognize that there are significant limitations to international trade in services statistics, particularly KBSs. While this is a challenge across the board, it is particularly acute in developing countries such as those in LAC (Box 11).

KBSs have experienced noticeably strong growth.

International trade in KBSs has been driven by three main factors.[44] First, advancements in information and communication technologies (ICTs) have facilitated the

FIGURE 16 • WORLD EXPORTS OF KBSs
(Value in trillions of US$ and percentage share in total trade, 2013–2023)



Source: IDB Integration and Trade Sector based on UNCTAD.

[44] See, among others, Baldwin (2016 and 2022), Mirodout (2017), WTO (2019), World Bank and WTO (2023), for global trends, and Hernández et al. (2014), Rozemberg and Gayá (2019), Álvarez, Fernández-Stark, and Mulder (2020), and Giordano and Ortiz (2021) for a focus on LAC.

BOX 11 • LIMITATIONS IN INTERNATIONAL STATISTICS ON TRADE IN SERVICES

The lack of robust data on services, particularly KBSs, can be attributed to several factors:

The intangible nature of services makes them hard to measure and record. Since services do not cross borders physically, they often lack the precise, detailed customs information available for trade in goods. Statistics on trade in services comes from a range of sources, but the coverage, accuracy, frequency, and relevance is uneven. Primary sources include business and household surveys, administrative records, foreign exchange transactions, and the operations of multinational companies. The limitations and inconsistencies in these sources and the costs of gathering, processing, and harmonizing data mean that statistics on trade in services are less reliable than for goods.

Disaggregation by sector is limited. The most frequently used statistics derive from the services account of the balance of payments, recorded using the methodology of the Sixth Edition of the IMF's Balance of Payments Manual (BPM6), which includes four KBS categories: charges for the use of intellectual property (CUIPs), telecommunications, computer, and information services (TCISs), other business services (OBSs), and personal, cultural, and recreational services (PCRSs), most of which are broken down into only a few subcategories. While more detailed information can be obtained using the extended balance of payments services classification (EBOPS), these statistics remain far more aggregated than those for goods, and in most economies, EBOPS data is only available for certain segments.

The coverage of statistics varies by country and period. This hampers international and historical comparisons. However, in recent years, many countries have made efforts to improve their service trade statistics by adding categories and increasing the precision of their data. In some LAC countries, detailed information is available using the EBOPS classification (e.g., Argentina), while others have complementary sources that provide more granular data for key EBOPS categories such as call centers (e.g., Colombia's National Administrative Statistics Department, DANE) or extremely disaggregated data using alternative classifications (e.g., Chile's National Customs Service, SNA).

Primary data disaggregated by trading partner is scarce. This is partly due to challenges in accurately capturing the jurisdictions where services are provided from and consumed, often as a result of differences in tax treatment that incentivize providers to register in low-tax locations, or situations where a parent company or multinational subsidiary contract services that are used across multiple countries, among other reasons. Few countries publish data on trade in total services and KBSs disaggregated by sector and partner country. Only three countries in LAC provide such information. Argentina publishes data on imports and exports by partner country disaggregated according to the EBOPS classification. In Colombia, DANE's service trade survey reports on the main origin and destination countries for the most relevant EBOPS categories, while Chile's SNA publishes export data by partner with detailed sector-specific breakdowns using its own classification system. In other cases, counterpart data is only available for total services and/or specific sectors or countries (e.g., Brazil and Costa Rica).

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BOX 11 • LIMITATIONS IN INTERNATIONAL STATISTICS ON TRADE IN SERVICES *(cont.)*

Bilateral data on global trade in services are only available on an experimental basis. Due to the lack of data disaggregated by trading partner, the WTO and OECD have developed the experimental Balanced Trade in Services (BaTiS) dataset, which covers bilateral flows of services for 202 economies across the 12 balance-of-payments categories (four of which relate to KBSs).[b] This dataset was built using data reported by the countries that provide information on services trade destinations, combining the data for each of these countries and their trading partners (mirror data), and using estimates to fill in any gaps and ensure consistency. While this approach provides an approximation of the geographic breakdown of world trade in services, it should nonetheless be used with caution, as there are often significant discrepancies in the primary data reported by official sources. Additionally, BaTiS uses a gravity model to estimate missing flows, assuming the existence of bilateral trade between all countries for all categories of services, which is highly unlikely for KBSs, especially between smaller economies.

A significant share of international trade in KBSs takes place through intrafirm transactions. Transfer prices (the values at which transactions between subsidiaries of the same company are conducted) may not always reflect the true value of traded services, especially given the differences in tax treatment across jurisdictions and the difficulties in capturing digital transactions.[c]

Balance-of-payments statistics fail to capture all modes of supply for trade in services. According to the WTO's General Agreement on Trade in Services (GATS), services can be traded internationally through four modes of supply defined according to the locations of the provider and the consumer.[d] The *Manual on Statistics of International Trade in Services* (MSITS)[e] recommends accounting for transactions across these four modes of supply, which require data on resident and nonresident transfers through EBOPS (modes 1, 2, and 4) and Foreign Affiliate Trade Statistics (FATS) to capture trade through commercial presence (mode 3). In addition to the limitations of EBOPS statistics described above, FATS data is only available for a few countries. In LAC, it only exists for Costa Rica and is out-of-date.

Data on trade in services disaggregated by mode of supply is scarce. Few LAC countries publish these statistics and those that do often only cover certain sectors or release only aggregate figures. Some international organizations estimate trade in services by mode of supply, but these databases also have limitations. For instance, the estimates published by the Latin American Integration Association (LAIA)[f] only cover member countries and are based on transactions recorded in the 12 EBOPS service categories (and some subcategories), such that they only include modes 1, 2, and 4. Transactions are classified using fixed proportions for each mode, which do not vary across countries or over time. Meanwhile, the WTO's Trade in Services by Mode of Supply (TISMOS) database[g] provides estimates for 66 EBOPS categories in 191 countries, disaggregated by all four modes of supply. It uses EBOPS data and assumes fixed proportions in each mode, which do not always coincide with the proportions reported by LAIA[h] and vary by country, as the calculations for some countries rely on data from national sources (e.g., Colombia, Finland, France, India, Spain, and the US). Likewise, mode 3 is derived from the FATS data, available only for some countries.

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BOX 11 • LIMITATIONS IN INTERNATIONAL STATISTICS ON TRADE IN SERVICES *(cont.)*

Firm-level data is limited and is often confidential. The lack of this information complicates microeconomic analysis, making it hard to determine the number and characteristics of exporting firms, the drivers of their performance, the impact of public policies, and so on.[i]

This overview highlights the significant shortcomings in the availability of statistics on international KBS trade. As a result, governments have only a limited ability to conduct diagnostic assessments, design evidence-based unilateral public policies, and monitor and evaluate their impact. These statistical constraints also reduce countries' capacities to negotiate international agreements on services, as many countries enter talks without accurate data on the breakdown of or trends in trade with their counterparts. They also pose challenges to businesses making trade and investment decisions, as they lack robust information for analyzing markets and planning their internationalization strategies. Finally, shortfalls in data restrict academics' ability to conduct research that could enhance understandings of trade in KBSs and inform recommendations for both the public and private sectors.

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[a] IMF (2009) and Loungani et al. (2017).
[b] Liberatore and Wettsetin (2021).
[c] Gayá (2015).
[d] Mode 1 (cross-border supply) involves services provided from the territory of one country to another (e.g., streaming services). Mode 2 (consumption abroad) occurs when a consumer travels to the service provider's country to consume services (e.g., a production company filming a movie in another country, hiring local production services). Mode 3 (commercial presence) covers services delivered through foreign direct investment (e.g., telecommunications services provided in a country by the local subsidiary of a foreign company). Mode 4 (movement of natural persons) entails the service provider traveling to the consumer's country to deliver the service (e.g., an artist travels abroad to give a concert).
[e] See UN, IMF, OECD, Eurostat, UNCTAD, UNWTO, and WTO (2012) and UN, IMF, OECD, Eurostat, UNCTAD, UNWTO, and WTO (2016) for additional information.
[f] ALADI (n.d.)
[g] Wettstein et al. (2019).
[h] For KBSs, both databases allocate the entire reported value in the balance of payments for CUIPs and TCISs to mode 1; they divide other PCRSs and OBSs between mode 1 (75%) and mode 4 (25%), with the exception of trade-related services (mode 1) and waste management (50% to mode 2 and 50% to mode 4). However, for IT services, TISMOS assigns 75% to mode 1 and 25% to mode 4, while ALADI divides their value equally between these two modes. In the case of audiovisual services, TISMOS assigns 70% to mode 1, 10% to mode 2, and 20% to mode 4, while ALADI allocates 75% to mode 1 and 25% to mode 4.
[i] See, for example, Volpe Martincus (2023) and Marra de Artiñano and Volpe Martincus (2023a and 2023b).

tradability of KBSs and thus the internationalization of firms in the sector, enabling new service-based business models. This process intensified during the Covid-19 pandemic, when KBSs were the only category of services that did not contract, as remote delivery allowed continuity at a time when lockdowns severely impacted other sectors. The acceleration of the digital transformation during this period also brought a surge in

Trade in KBSs has expanded in parallel with advancements in ICTs.

demand for software and IT-related services. This prompted digitally delivered services to expand faster than those supplied by traditional means.[45]

Second, services have become critical for value creation and product differentiation across the economy, giving rise to the phenomena known as "servicification" and "servitization."[46] The global influence of KBSs on final demand across all goods-producing sectors has grown in recent decades. According to the OECD's Trade in Value Added (TIVA) database,[47] between 1995 and 2020, the share of KBSs in final and intermediate demand for manufacturing activities increased from 7.2% to 8.4%. Their contribution rose from 7.1% to 8.4% in the mining and quarrying sector and from 3.1% to 3.5% in agriculture, livestock farming, forestry, and fisheries, two sectors that play a crucial role in LAC's export profile. Professional, scientific, and technical services and academic support services represent the largest shares, while IT services have seen the most significant increase in value-added contributions to other sectors.

KBSs are key to value creation in modern economies.

Third, unilateral regulatory reforms in several countries have benefited international KBS flows, particularly through new competition policies that have enabled foreign providers to play a greater role in local markets.[48] Horizontal and vertical sector policies and trade and investment promotion agencies have also played a key role in this process, mainly by addressing market failures relating to incomplete and asymmetric information.[49] Many countries have signed preferential bilateral, regional, or sectoral trade agreements incorporating deeper commitments on national regulations than under the GATS, e-commerce, the cross-border movement of service providers, and so on. These agreements increased transparency and predictability for trade in KBSs. The WTO's Joint Initiative on Services Domestic Regulation aims to achieve the same goal. Nevertheless, the barriers to trade in services remain higher than for goods.[50]

Regulatory reforms have fueled trade in KBSs.

As a result of these structural and regulatory changes, the pattern of global trade in KBSs has changed significantly over the past decade. The largest category is other business services (OBSs), which accounted for 53.6% of the global total in 2023, the most

[45] See, among others, Giordano et al. (2017), Giordano and Ortiz (2021), and ECLAC (2024) for a focus on LAC.

[46] "Servicification" refers to the proportional greater use of services in production, while "servitization" points to the association of services to goods sales. See, for example, Sterher et al. (2012) and Nayyar et al. (2021) for an analysis of the impact of services on productivity and growth in advanced economies and developing countries.

[47] Martins Guilhoto and Yamano (2022).

[48] See WTO (2019) or World Bank and WTO (2023) for an overview.

[49] See Volpe Martincus et al. (2021) for a benchmarking of LAC against best international practices.

[50] See Hoekman and Shepherd (2021) and Benz and Jaax (2022) for a global sample and Giordano and Ortiz (2021) for LAC.

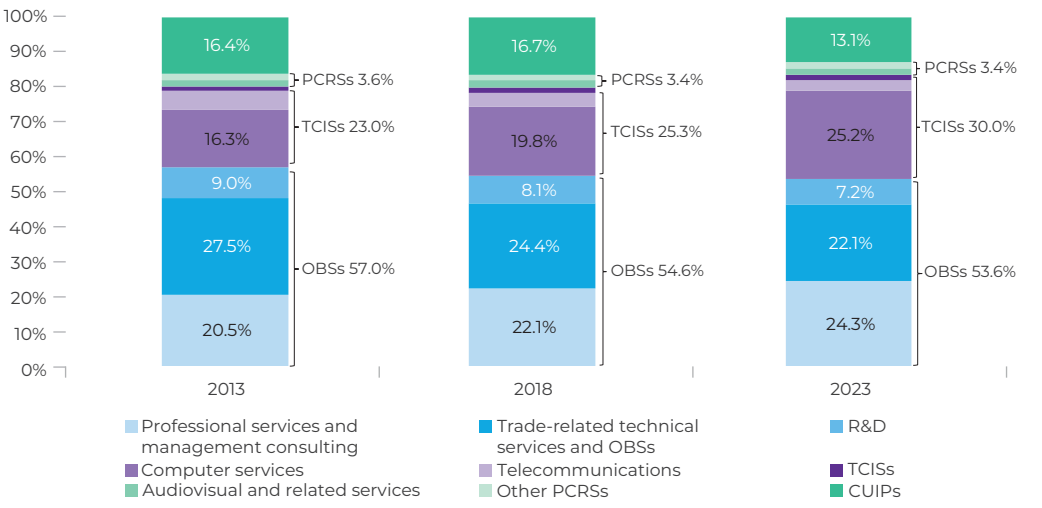
Business and IT services dominate trade in KBSs.

significant of which are professional services and management consulting, followed by trade-related technical services, and research and development (R&D). However, the fastest-growing component of KBSs has been telecommunications, computer, and information services (TCISs). Exports in this category grew by a cumulative annual average of 9.8% between 2013 and 2023, and their share in total KBS exports rose from 23% to 30%, with growth being particularly strong from the start of Covid onward. This growth has been largely driven by computer services and the factors mentioned above. CUIPs make up 13.1% of global KBS exports. This category is dominated by licenses for R&D-derived products and for using and/or distributing software. Audiovisual and related services are the largest component of global exports of personal, cultural, and recreational services (PCRSs) (Figure 17).

The US and Ireland are the global leaders in KBS trade.

The US is the world's largest exporter of KBSs (13.4% of the total in 2023) and the second-largest importer (9.0%). Ireland stood out for its rapid growth in this sector, moving from seventh place in the export ranking in 2013 to second place in 2023 (8.8% of the total) and from fourth to first place in the import ranking (10.2%).[51] Other key players in the global

FIGURE 17 • COMPOSITION OF WORLD EXPORTS OF KBSs
(Share in the total, percentages, selected years, 2013–2023)



Source: IDB Integration and Trade Sector based on UNCTAD.

[51] Ireland's share in the global KBS market owes largely to its tax regime, which has led to global operations being billed from there even if they are actually delivered from other jurisdictions. Initiatives to impose minimum corporate tax rates and/or require large service companies to pay taxes in other EU countries could alter Ireland's relative weight in this market, at least partially. See Santacreu (2023) and Moran (2024), among others.

FIGURE 18 • KEY PLAYERS IN GLOBAL KBS TRADE
(Share in exports and imports, percentages, 2023)

Source: IDB Integration and Trade Sector based on UNCTAD.

KBS market include the United Kingdom, Germany, India, China, the Netherlands, and France (Figure 18).

Against this backdrop, exports of KBSs from LAC have grown at 4.7% a.a. over the past decade, faster than exports of goods (2.9% a.a.) and total services (4.3% a.a.). As a result, the region's KBS exports reached US$72.7 billion in 2023, while imports totaled US$103.7 billion. However, both imports and exports were less dynamic than global trade in KBSs, primarily because of a slowdown in exports and a contraction in imports in South America. All LAC subregions except Central America show a deficit in trade in these services. KBSs account for 4.3% of LAC's total export basket of goods and services, compared to 11.5% in the world total. This relatively low share is explained by the region's specialization in mining and agricultural products, certain manufactured goods, and, within the services sector, tourism. Even when accounting for the structure of trade specialization, LAC's KBSs grew more slowly than the global total between 2013 and 2023 (4.7% vs. 7.0% a.a.). Therefore, during this period, the region's share in world KBS exports fell from 2.5% to 2.0% as the result of a downward trend that reversed somewhat after Covid (Figure 19).

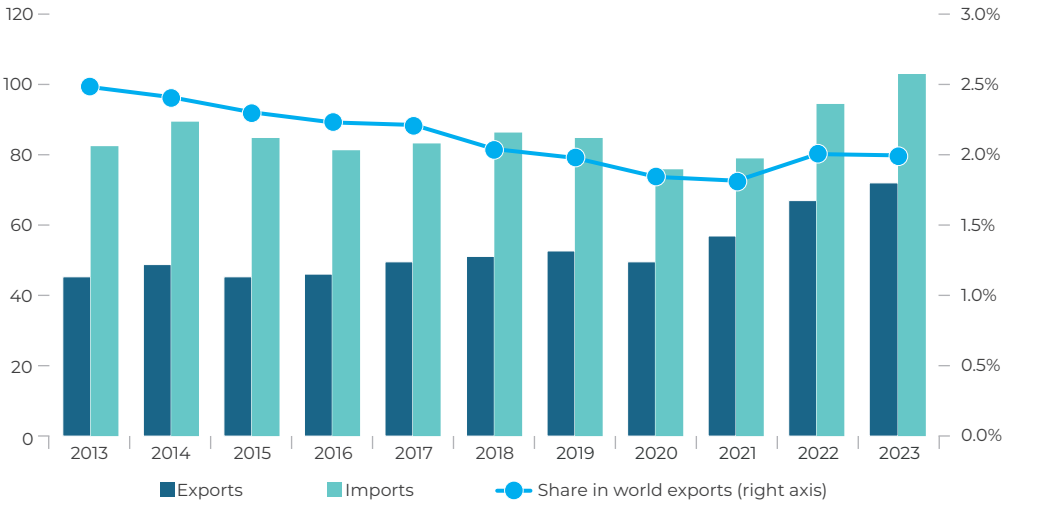
LAC's trade in KBSs grew less than the global average.

There are significant differences in KBS exports from LAC countries in terms of flows, performance over the past decade, and their size relative to each economy (Figure 20 and Table 7). Nearly two-thirds of LAC's KBS exports originate from South America, although these have grown more slowly than those from Mesoamerica over the last decade.

The KBS landscape varies widely across countries.

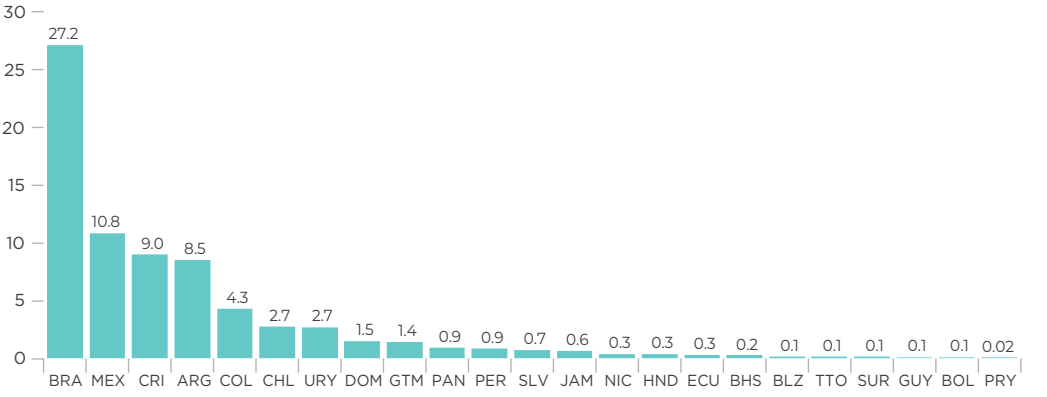
Brazil is the largest exporter of KBSs in the region, accounting for 37% of the total. A second group of countries also export significant, albeit smaller, shares: Mexico (15%), Costa Rica (12%), and Argentina (12%). Colombia (6%), Chile (4%), and Uruguay (4%) form a third group. The remaining countries together account for 10% of the region's KBS exports.

FIGURE 19 • TRADE IN KBS IN LATIN AMERICA AND THE CARIBBEAN
(Value in billions of US$ and percentage shares, 2013–2023)



Source: IDB Integration and Trade Sector based on UNCTAD and Banxico.
Note: Barbados, Haiti, and Venezuela are not included due to incomplete data.

FIGURE 20 • KBS EXPORTS FROM LATIN AMERICA AND THE CARIBBEAN
(Value in billions of US$, 2023)



Source: IDB Integration and Trade Sector based on UNCTAD and Banxico.
Notes: The recent addition of new sources in official statistics for Mexico has enabled more accurate readings of the country's KBS exports and revisions of historical series, such that these values are now higher than earlier data compiled in international sources.

TABLE 7 • KBS EXPORTS FROM LATIN AMERICA AND THE CARIBBEAN
(Selected indicators, US$ and percentages, 2023)

Region/country	Value, in millions of US$	Average annual growth, 2013–2023 (%)	% of total exports	% of GDP	Per capita, in US$
LATIN AMERICA AND THE CARIBBEAN[a, b]	**72,906**	**4.7**	**4.8**	**1.3**	**132.0**
LATIN AMERICA[a]	**71,619**	**4.8**	**4.9**	**1.3**	**131.2**
MESOAMERICA	**24,962**	**9.6**	**3.2**	**1.1**	**128.6**
Mexico	10,845	8.8	1.7	0.6	82.7
Central America	**14,117**	**10.3**	**11.0**	**3.0**	**224.2**
Costa Rica	8,984	12.4	26.8	10.4	1,702.2
El Salvador	696	12.4	6.0	2.0	109.5
Guatemala	1,397	6.4	7.6	1.4	73.5
Honduras	326	2.3	3.4	0.9	31.1
Nicaragua	343	7.9	3.8	2.0	51.4
Panama	877	1.8	4.2	1.1	196.9
Dominican Republic	1,494	14.0	6.0	1.2	139.3
SOUTH AMERICA[a]	**46,657**	**2.9**	**6.7**	**1.4**	**132.7**
Argentina	8,516	3.2	10.2	1.3	182.4
Bolivia	70	–6.9	0.6	0.2	5.8
Brazil	27,209	2.3	7.1	1.3	133.2
Chile	2,722	3.3	2.6	0.8	136.4
Colombia	4,307	5.6	6.6	1.2	82.6
Ecuador	285	1.9	0.8	0.2	15.6
Paraguay	18	1.8	0.1	0.0	2.4
Peru	853	3.0	1.2	0.3	25.3
Uruguay	2,677	4.4	17.4	3.5	750.5
CARIBBEAN[b]	**1,287**	**2.9**	**3.5**	**1.5**	**199.3**
Bahamas	242	1.0	0.0	1.8	599.0
Belize	146	12.7	12.4	4.7	323.7
Guyana	74	3.1	0.6	0.4	92.6
Jamaica	603	4.4	8.3	3.2	219.5
Suriname	96	8.1	4.2	2.6	150.7
Trinidad and Tobago	126	–5.2	1.4	0.4	88.7

Source: IDB Integration and Trade Sector based on IMF, UNCTAD, and Banxico.
Notes: [a] Venezuela is not included due to lack of data. [b] Barbados and Haiti are not included due to lack of data.

However, the sector is particularly large in Costa Rica and Uruguay relative to the size of these two economies, their total exports, or populations (Table 7). For instance, Costa Rica's KBS exports account for 26.8% of total exports of goods and services and represent 10.4% of GDP (compared to just 1.3% for the region and 3.5% worldwide). The country exports more than US$1,700 per capita in KBS annually, while the regional average is just US$132. Uruguay's per capita KBS exports are worth US$750.5, representing 3.5% of GDP and 17.4% of total exports. In contrast, in some LAC countries like Paraguay and Bolivia, KBS exports account for less than 1% of GDP and/or less than US$10 per capita annually.

Based on WTO (BaTiS) estimates, in 2021, 36% of LAC's KBS exports went to the US, which is the primary KBS market for 24 of the 26 countries in the region. Although there are limitations to this database, as noted in Box 11, including significant differences with official sources,[52] the data disaggregated by partner country available for some LAC countries confirm the importance of the US market as a destination for KBS exports from the region.[53] The significance of the US is explained not only by market size but also by geographic proximity, time zone, cultural similarities, the scale of intrafirm trade by US subsidiaries operating in LAC, and low barriers to trade, which is analyzed in more detail below. According to BaTiS data, the intraregional market absorbs just 8% of KBS exports. However, partial data published by Argentina, Chile, and Colombia indicates that these three countries direct between one-quarter and one-third of their KBS exports to other LAC countries, suggesting that the intraregional market is indeed relevant.

The US and Europe are the main destinations.

In terms of sectors, OBSs are the largest category in LAC's KBS exports. Over the past decade, exports of these have grown at a rate of 4.3% a.a., compared to a global rate of 6.4%. OBSs represented 69.5% of LAC's KBS exports in 2023 (US$50.6 billion), a share that is significantly higher than at the global level (53.6%). As is discussed later, the size of this share points to the lower relative sophistication of the region's KBS exports. OBSs are the largest category of KBS exports in 16 of the 23 LAC countries with available data (Figure 21).

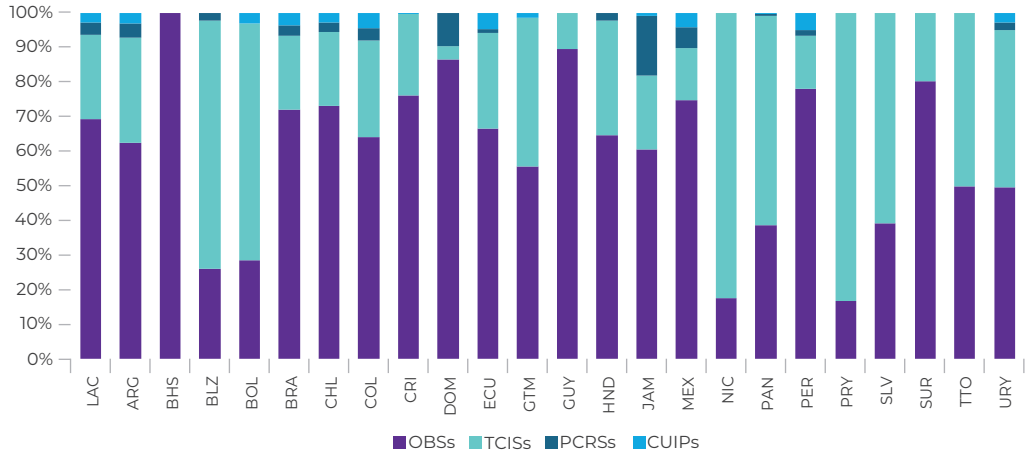
Business services account for over two-thirds of LAC's KBS exports.

Professional and management consulting services predominate in LAC's OBS exports, based on the disaggregated and/or partial data available for certain countries.[54]

[52] For example, based on data for 2021 (the most recent year available from BaTiS), Colombia's exports of TCISs to Argentina totaled US$3.6 million according to DANE (Colombia), while BaTiS data puts this figure at US$22.4 million. Likewise, Argentina's National Institute of Statistic and Censuses (INDEC) estimated that imports of the services from Colombia in the same period were worth US$21.8 million.

[53] The US accounts for between 36% and 46% of KBS exports from Argentina, Chile, and Colombia, the only countries in the region for which official bilateral data is available.

FIGURE 21 • COMPOSITION OF KBS EXPORTS FROM LATIN AMERICA AND CARIBBEAN BY SECTOR
(Percentages, 2023)



Source: IDB Integration and Trade Sector based on UNCTAD and Banxico.

Shared service centers play a leading role in LAC.

The region is home to numerous shared service centers and other types of business process outsourcing (BPO) and knowledge process outsourcing (KPO) arrangements that export services in areas that include finance, human resources, taxes, procurement, customer service, bookkeeping, auditing, business consulting, financial statement reviews, debt management or supplier payments, financial and investment strategy development, and logistics management. Many of these centers have operations in LAC, the US, and the EU. The services they provide are generally delivered by subsidiaries of multinational companies that fall into two groups: firms whose core business is these activities (e.g., KPMG, PwC, Deloitte, EY, and Teleperformance) and companies from other sectors that have located these tasks in LAC to serve their subsidiaries in the region or beyond as part of their global strategy (e.g., American Express, UBS, JP Morgan, BASF, Abbott, Exxon, Fresenius Medical, BHP Billiton, Falabella, and LATAM Airlines). For this reason, the share of intrafirm trade in KBSs is high. Most exports of professional and consulting services are labor-intensive, although the sector also includes other activities, such as legal representation, ship registration, and the incorporation of foreign companies. Some countries have a long-established presence and international renown in areas such as advertising, market research, and opinion polling (e.g., Argentina, Brazil, Chile, and Colombia), while others have only begun to develop these areas recently, particularly

[54] Deloitte (2023), Gayá (2024), INDEC (Argentina), DANE (Colombia), Chilean Customs, Banxico (Mexico) and websites of trade associations and investment promotion agencies in LAC countries.

by focusing on digital design and marketing.[55] In trade-related technical services and other business services, the latter stand out and include other types of business consulting, translation, human resource management, and marketing consultancy services. In architecture and engineering services, LAC-based companies often internationalize through partnerships with local firms in destination countries due to regulatory barriers such as the requirement to have a commercial presence and/or partner with local companies. Most services in this category relate to construction engineering, public works, mining, and industrial activities. LAC's exports include design, technical and environmental feasibility studies, and consulting.

Exports of TCISs from the region grew at a slightly slower pace than the world average (9.1% versus 9.9% a.a. between 2013 and 2023), performing relatively better than other KBS categories. The segment accounts for 24.4% of the region's KBS exports (US$17.8 billion), lower than the global average (30.0%). Its largest component is computer services, which accounted for 63% of the increase in LAC KBS exports over the past decade, although telecommunication services play a more important role in some countries, such as Guatemala, Mexico, Nicaragua, and Panama. According to BaTiS estimates and the data available in some countries, this is the most significant KBS segment in terms of intraregional trade. LAC's computer service exports are provided by major international companies (e.g., Accenture, Microsoft, Softserve, ThoughtWorks, Tata, and Citi Group) and local firms. Indeed, there are various *multilatinas* exporting computer services from various countries in the region, such as Mercado Libre and Globant (Argentina) and Stefanini (Brazil). As with OBSs, LAC is home to various service centers operating in the sector and in other industries that provide network processes, service integration, data governance, technology management, maintenance, and support services.[56] Local companies offer both standardized and tailored services to clients across various sectors (verticals). Data centers for firms such as IBM, AWS, Google, Oracle, Microsoft, Huawei, Ascenty, and GDT are a growing presence in some LAC countries, including Chile, Colombia, Costa Rica, and Panama. For example, hosting services account for 40% of Chile's computer services exports.

Computer services are growing particularly fast.

Exports of PCRSs from LAC contracted by 4.8% a.a. between 2013 and 2023, reaching US$2.4 billion, mainly due to declining sales from Brazil.[57] This contrasts with

[55] Gayá (2017), Barrero Castellanos et al. (2019 and 2021), and websites of trade associations and investment promotion agencies in LAC countries.

[56] Deloitte (2023).

[57] Between 2013 and 2014, Brazil's PCRS exports shrank by 75%. Although there is no detailed information explaining this contraction, it may relate to how exports are recorded, given that the change coincides with the adoption of the BPM6 methodology (replacing BPM5), which ushered in the disaggregation of PCRSs into audiovisual and related services and other PCRSs. Between 2014 and 2023, Brazil's PCRS exports grew at an annual average rate of 11.8%.

the 6.5% a.a. growth that the sector experienced worldwide in the same period. As a consequence, the share of PCRSs in the region's KBS exports fell from 8.8% to 3.3% over the past decade, reaching a similar share to that of global trade (3.4%). This category includes other PCRSs (such as education and health) and audiovisual and related services. In the audiovisual sector, LAC exports preproduction services (e.g., location scouting, casting), as well as production and postproduction services (e.g., dubbing, editing, special effects, subtitling). This sector frequently involves online exports (cross-border supply or mode 1) but also sees international production companies filming in LAC countries (consumption abroad or mode 2), attracted by specific locations and/or tax incentives. In recent years, several countries in the region have also started to develop exports of digital animation services. According to BaTiS estimates, US$7 out of every US$10 in PCRS exports go to the US market.

Exports of personal, cultural, and recreational services have fallen over the past decade.

LAC's exports of CUIPs grew at 5.7% a.a. over the past decade, outpacing the global average by 1.1 p.p. and reaching US$2.0 billion in 2023. The limited data available on the composition of CUIP exports suggests that they primarily consist of licenses for reproducing and/or distributing audiovisual products, as well as franchising and trademark-licensing rights. Although the share of CUIPs in LAC's KBS exports rose slightly from 2.6% to 2.8% between 2013 and 2023, this share remains marginal compared to the world average (13.1%). The relative insignificance of CUIPs as a whole and particularly of licenses for using the results of R&D is linked to the low complexity of LAC's KBS exports. Indeed, although some countries have made strides in some higher-value-added segments, such as regional headquarters for certain R&D activities, many of the region's services remain less knowledge-intensive, as in the case of call centers for marketing or customer support or software factories, which compete mainly on price.

Charges for the use of intellectual property are a marginal but fast-growing sector.

One way to evaluate the sophistication of KBS exports is through their R&D intensity. Based on the OECD taxonomy,[58] 69% of KBS exports from LAC are concentrated in segments with low to medium R&D intensity. This export profile poses medium-term

[58] According to Galindo-Rueda and Verger (2016), activities can be classified as follows based on their intensity in R&D: 1) High intensity: software publishing; scientific R&D; 2) Medium-high intensity: computer programming, consultancy and related activities, information services; 3) Medium-low intensity: publishing of books and periodicals, telecommunications, legal and accounting activities, head office activities, management consulting, architecture and engineering, technical testing and analysis, advertising and market research, other professional, scientific, and technical activities; 4) Low intensity: film, video, and TV production, sound recording and music publishing, broadcasting, and employment activities.

risks, as it is not resilient to rising costs and is more vulnerable to technological developments like automation and artificial intelligence (AI) (Box 12). However, this analysis is limited by the scarcity of detailed data on the significance of each type of service within the region's KBS exports. For example, in the OECD taxonomy, all OBSs except R&D are categorized as having medium-low R&D intensity, but these include services with varying degrees of sophistication, from professional services

LAC's KBS exports are concentrated in sectors with medium-low R&D intensity.

BOX 12 • FRIEND OR FOE? THE IMPACT OF ARTIFICIAL INTELLIGENCE ON KBS EXPORTS

Most KBSs are intensive in human capital, making them particularly susceptible to the effect of AI on employment. In LAC, this is particularly relevant as many countries have promoted these activities for their potential to create quality employment—that is, formal, skilled jobs that earn above-average wages relative to the rest of the economy.[a]

Various studies have examined which activities are most exposed to this technological shift. Recent contributions,[b] including research using data from LAC countries, suggest that KBSs are among the sectors that will be most impacted by AI. Unlike previous technological innovations, which mainly impacted less sophisticated activities, the jobs that are most vulnerable to AI require higher levels of education and are ones where intellectual tasks are more prevalent than physical ones (which are typically more exposed to other types of automation, such as robotics).

Although different methodologies have been used to assess exposure to AI, most studies find that KBSs are particularly vulnerable, especially business and professional services. Some of the most at-risk tasks include those currently performed by call center workers and telemarketers; administrative, accounting, legal, auditing, and HR services; technical draftspeople; industrial designers; tax processors; financial analysts; and software editors. Based on the estimates of exposure to AI in these studies, it is possible to calculate the degree of exposure of LAC's KBSs.

An IDB study[c] developed an AI-generated occupational exposure index to quantify AI's potential impact on various occupations and the tasks associated with them over one-, five-, and ten-year horizons, given that its influence is expected to increase over time. The indicator not only calculates the technical feasibility of AI performing a given task, but also includes ethical, regulatory, and socioeconomic considerations that influence the likelihood of it replacing human labor. The authors calibrated the index using microdata from the US and Mexico. For example, in a five-year timeframe, the results suggest that AI exposure will affect 70% of administrative staff, 45% of business and financial operations staff, 36% of legal personnel, and 38% of those performing IT and mathematical tasks. The study highlights that while AI may replace certain tasks, it is likely that many occupations will not disappear altogether but will adapt to the use of AI, complementing it in tasks where human judgment is crucial. The findings suggest that jobs dominated by routine tasks are the most vulnerable, whereas occupations with higher levels of personal interaction, nonrepetitive activities, and complex decision-making are less exposed.

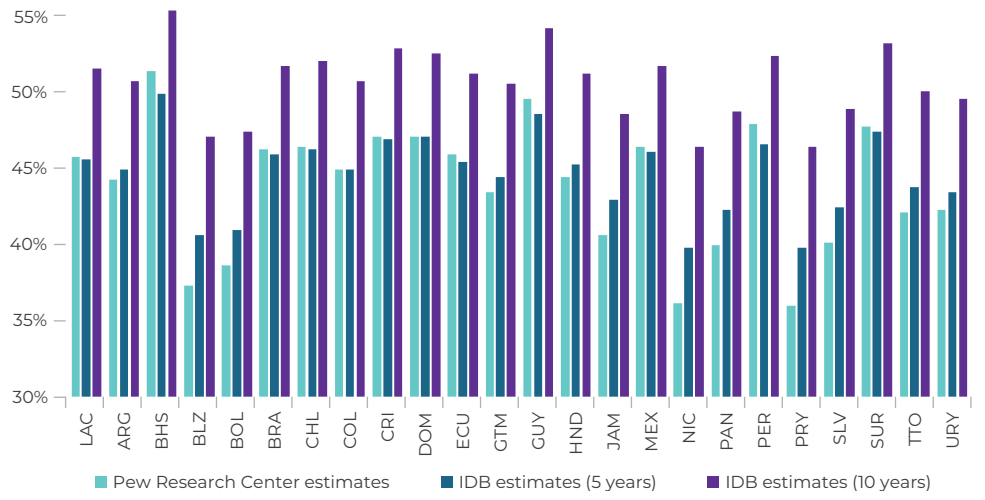
(continued on next page)

BOX 12 • FRIEND OR FOE? THE IMPACT OF ARTIFICIAL INTELLIGENCE ON KBS EXPORTS *(continued)*

Another study by the Pew Research Center[d] measures the extent of AI exposure in US jobs based on the tasks associated with specific activities. According to these estimates, some KBSs are particularly vulnerable: 52% of workers in business, professional, scientific, and technical services are exposed to AI, compared to 33% in information services. Unlike previous waves of automation that focused on repetitive, routine tasks, AI's broader reach relates to analytical skills (such as critical thinking, writing, science, and mathematics) used in skills associated with gathering or processing information, oversight, monitoring compliance, problem-solving, decision-making, creative thinking, and so on. However, the analysis emphasizes that AI's impact on employment may be negative (displacing workers) or positive (enhancing productivity, with humans carrying out tasks to complement AI). Indeed, these studies include surveys of workers regarding the possible impact of AI in sectors like IT and professional, scientific, and technical services, which show a prevailing expectation that the positive effects will outweigh the negative ones.

The findings of the Pew Research Center study regarding exposure of KBS activities to AI are similar to those of the five-year scenario in the IDB study, despite methodological differences between the two. Drawing on the findings of both studies and comparing them with the structure of LAC's KBS exports, the research for this edition of the *Trade and Integration Monitor* found that 46% of the region's KBS exports are vulnerable to AI, rising to 52% in a ten-year scenario. Since OBSs are more exposed to AI than other sectors, the economies most at risk are those in which this category accounts for a larger share (Figure). The similarities between countries can be attributed to the lack of more granular data on exports, which would allow for more precise estimates of AI's impact on different subsectors.

EXPOSURE OF KBS EXPORTS FROM LATIN AMERICA AND THE CARIBBEAN TO ARTIFICIAL INTELLIGENCE
(Estimates, percentage of the total, 2023–2033)



Source: IDB Integration and Trade Sector based on Benítez-Rueda and Parrado (2024) and Kochhar (2023).

(continued on next page)

BOX 12 • FRIEND OR FOE? THE IMPACT OF ARTIFICIAL INTELLIGENCE ON KBS EXPORTS *(continued)*

These findings are complemented by an IMF[e] study on the impact of AI on labor markets in six countries, including Brazil and Colombia. This not only assesses the degree of exposure but also attempts to distinguish between potentially positive and negative outcomes, based on whether AI has the potential to complement or replace human labor in different activities. Complementarity is associated with the combination of experience and the ability to integrate AI into the skills that are inherent to a given job. In both Brazil and Colombia, occupations that are more closely linked to KBSs tend to have larger shares of jobs that are highly vulnerable to AI. However, this exposure varies. Among professionals and management, it is associated with high potential for complementarity, whereas for auxiliary and administrative tasks, it is more likely that AI will replace human labor.

While many of the jobs that are most exposed to AI are currently performed by highly educated individuals, these same workers are the best positioned to acquire the skills needed to leverage AI as a complementary tool for enhancing productivity. Consequently, building skills of this sort through education and training programs is crucial to optimizing AI's impact, which points to the importance of adapting education systems to develop these skills.

[a] For instance, the wages of formal employees in private IT firms in Argentina are 77% higher than average wages in the formal private sector (Observatorio de Empleo, and Dinámica Empresarial, data from June 2024). In Colombia, the wages of workers in the IT and communications sector are 93% above the economy-wide average (DANE, data for 2021). In Mexico, the informality rate among professional and technical workers is 27.6%, compared to a national average of 54.3% Moreover, wages in the professional, scientific, and technical service sectors are more than three times higher than in manufacturing (Secretariat of the Economy, data for the first quarter of 2024).
[b] See Benítez-Rueda and Parrado (2024), Kochhar (2023), Pizzinelli et al. (2023), Levy Yeyati and Judzik (2024), Felten et al. (2021), among others.
[c] Benítez-Rueda and Parrado (2024).
[d] Kochhar (2023).
[e] Pizzinelli et al. (2023).

to call centers. A similar situation arises in the computer services category (medium-high R&D intensity), which includes more complex software. An examination of the disaggregated data for 2022 available for some countries allows each segment's R&D intensity to be defined more precisely and reveals some significant changes compared to estimates based on balance of payment data. For instance, in Argentina, the share of KBS exports with high R&D intensity went from 11% to 14%, while in Colombia, KBSs with low R&D intensity accounted for 34% of the total (up from 2%), as more than half of the country's OBS exports come from call centers.[59]

Given its specialization patterns and performance over the past decade, LAC needs to overcome both internal and external challenges to capitalize on the potential

[59] The data from the two countries cannot be compared because it comes from different sources and uses different methodologies.

of this fast-growing segment of the global market and expand its KBS exports. Domestic constraints are rooted in lags in several drivers for competitiveness, while external barriers stem from obstacles encountered in target markets. The next section explores both of these dimensions through the indicators that are most frequently highlighted in the literature[60] and presents the results of an empirical analysis that gauges the relative impact of the most significant variables affecting the performance of KBS exports in LAC (Box 13).

To develop KBSs, LAC needs to overcome both domestic and external challenges.

Domestic drivers of competitiveness

Successful public policies to support KBSs are multidimensional.

The opportunities for internationalization within the KBS sector have prompted many countries to adopt sector-specific export promotion and investment attraction policies. The most successful global strategies feature a long-term vision, a multidimensional approach that addresses the many drivers of competitiveness, and collaboration between the public sector, the private sector, and academic institutions. The most effective policies have evolved over time to support KBSs to become progressively more sophisticated.[61] Export promotion and investment agencies play a pivotal role in this process as bridging information gaps is particularly effective for KBSs and, in turn, this is one of the sectors where such efforts have had the greatest impact.[62] To remain competitive internationally, KBS providers also require a stable macroeconomic environment, a sound regulatory framework, access to human capital, robust digital infrastructure, access to finance, and persistent development of business capabilities, among other factors[63].

The specific nature of the KBS sector implies that the export competitiveness is influenced by a wide array of factors. Some are structural, over which public policy has

[60] See, for example, Francois and Hoekman (2010) for an early review of the academic literature; Baldwin, Freeman, and Thedorakopulos (2023) for a forward-looking view of the role of KBSs in globalization; WTO (2019) and WTO and World Bank (2023) for policy implications for developing countries; and van der Marel (2011), Mezinova and Shepel (2019), Weresa and Kowalski (2020) and Benz et al. (2022) for specific aspects of the determinants of competitiveness. For a focus on LAC, see López et al. (2014), Rozemberg and Gayá (2019), Peña Capobianco (2019 and 2021), and Giordano and Ortiz De Mendívil (2021), among others.

[61] See López (2018), Rozemberg and Gayá (2019), and Barrero Castellanos et al. (2021), among others.

[62] See Volpe Martincus et al. (2021).

[63] See, for instance, López (2014) for an overview of the determinants of competitiveness and Chanda (2021), Kim et al. (2012), Lennon (2009), Liu et al. (2011), Ramasamy and Yeung (2010), van der Marel (2011) and Weresa and Kowalski (2020) for specific aspects such as institutional framework, infrastructure, human capital, geographic location, and cultural variables.

little or no sway, but there are others in which such interventions may be decisive. Although this challenge is not unique to the region, as highlighted in Box 11, LAC faces severe data shortages when it comes to KBSs. The lack of robust, comparable international data hampers companies' strategic decision-making, limits potential support from investment promotion agencies, and constrains the design, implementation, and monitoring of public policies by authorities. In particular, the lack of information on how KBSs are integrated with other productive sectors makes it harder to identify opportunities for strengthening linkages that would not only boost KBS exports but would also add value to traditional export sectors such as agribusiness, mining, and some manufacturing sectors. Addressing these information gaps is thus an urgent priority for evidence-based policymaking.

Improving the knowledge base for decision-making is a priority.

Among the structural drivers of competitiveness, geographic location and cultural affinity play a critical role. Real-time interaction is often required in the KBS sector, such that time zone alignment is an advantage for exports via cross-border supply (mode 1).[64] Likewise, geographic proximity facilitates service delivery through the physical movement of consumers (mode 2) or service providers (mode 4) and investment attraction (mode 3).[65] Cultural and linguistic similarities are also important, especially in sectors such as audiovisual services.[66] These factors help explain why the US is the main destination for KBS exports from LAC, while also pointing to untapped potential for growth in intraregional trade.

The region could capitalize on geographical proximity and cultural similarities.

One of the areas in which public policy can make a difference is the government's institutional capacity to design, implement, monitor, and evaluate policies. This factor can be gauged using the World Bank's Worldwide Governance Indicators.[67] LAC scores below the global average, about half

Improving quality of governance and regulatory frameworks is critical.

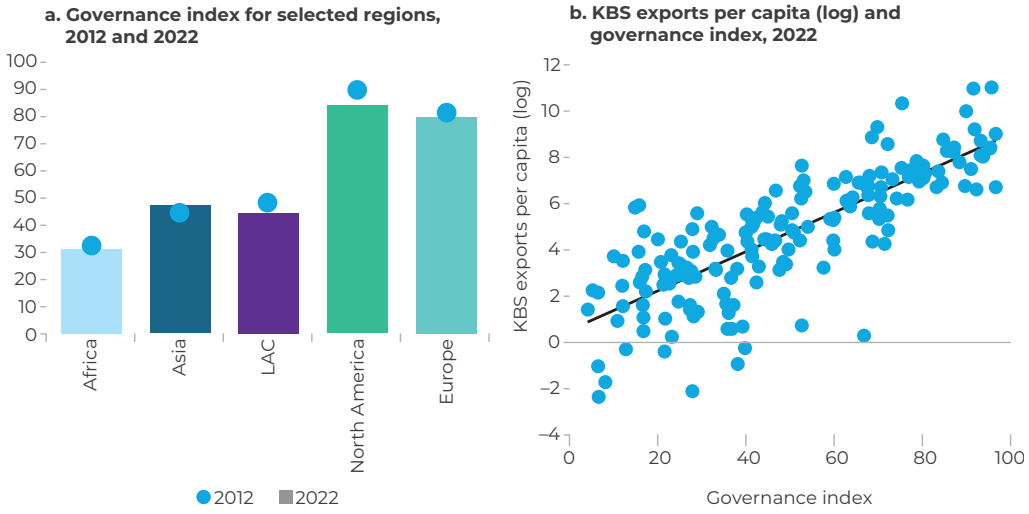
[64] However, a sizable time difference is sometimes specifically sought to ensure round-the-clock service provision.

[65] Proximity to the headquarters of the core business operations is the primary factor influencing location decisions for 46% of service centers in LAC (Deloitte, 2023).

[66] See López (2014), López (2018), Chanda (2021), Barrero Castellanos et al. (2021), Liu et al. (2011), Barrero Castellanos et al. (2021), and Gayá (2024).

[67] The Worldwide Governance Indicators are made up of six aggregate governance indicators that fall into three areas: 1) the process of selecting, monitoring, and replacing governments, which includes voice and accountability and political stability; 2) the government's ability to formulate and effectively implement sound policies, which is made up of an indicator on government effectiveness and another on regulatory quality; and 3) the respect of citizens and the state for the institutions that cover economic and social interactions between them, which

FIGURE 22 • GOVERNANCE INDICATORS
(Index, percentiles, 2012 and 2022)



Source: IDB Integration and Trade Sector based on the World Bank's Worldwide Governance Indicators.

the level of European and North American countries,[68] and only higher than Africa (Figure 22a). Moreover, LAC has seen the steepest decline in the index over the past decade. The LAC country with the highest rating is Uruguay, one of the region's leading KBS exporters in per capita terms, which scored just under the European average. Despite the broad nature of the indicator, Figure 22b shows that higher governance scores tend to be associated with increased KBS exports per capita.

Access to skilled human resources is a crucial factor in the development of KBSs. According to a Deloitte survey of service centers in LAC, the availability of skilled labor is the primary driver for location decisions in 20% of cases.[69] Three aspects of human capital shape competitiveness: the number of available workers, the quality of human talent, and labor costs (including wages and nonwage outlays), which are particularly relevant in less sophisticated market segments. The quality of talent encompasses technical expertise that is specific to different KBSs,

Shortfalls in human capital limit competitiveness in KBS.

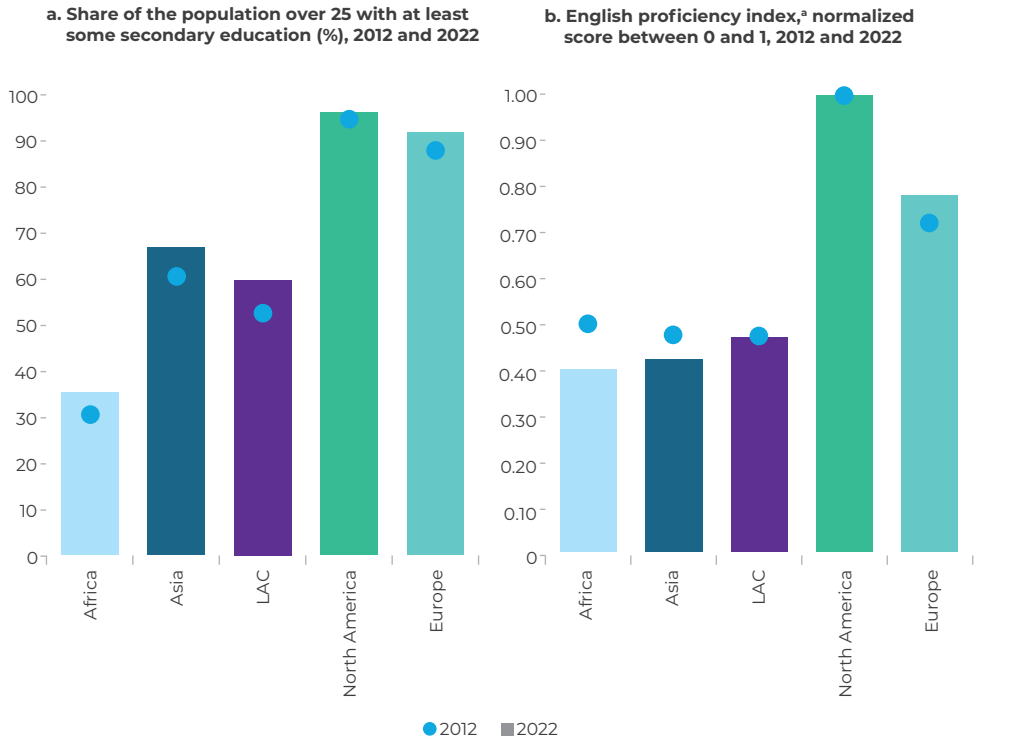
include the rule of law and control of corruption (Kaufmann, Kraay, and Mastruzzi, 2010). Both the composite indicator and its components are expressed as percentile rankings ranging from 0 to 100, with higher values indicating a better performance.

[68] North America includes the US and Canada, and Europe includes the countries of the European Union, the European Free Trade Association and the United Kingdom.

[69] Deloitte (2023).

language proficiency (mainly in relation to English), digital skills, and other soft skills such as management, teamwork, innovation, entrepreneurship, cultural awareness, and resilience.[70] LAC is facing several challenges in this area. The share of the population with secondary education (60% in 2022) is lower than in all other world regions except Africa (35%), although this percentage has grown over the past decade (Figure 23a). However, there is a shortage of human resources specializing in science, technology, engineering, and mathematics (STEM), while digital skills[71] and English proficiency are also lagging somewhat. According to the Education First English Proficiency Index (EF EPI), non-English-speaking countries in LAC outperform those in Asia and Africa but score significantly below Europe (Figure 23b). English proficiency in LAC is generally low to moderate, and while there are differences between countries, none

FIGURE 23 • HUMAN CAPITAL INDICATORS
(Selected indicators and regions, 2012 and 2022)

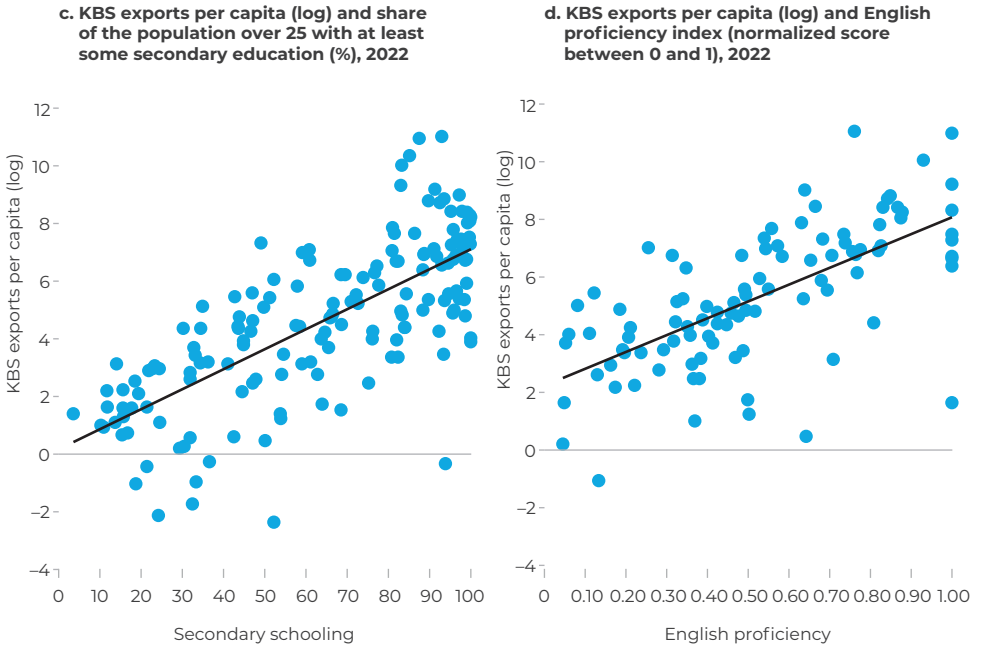


(continued on next page)

[70] For more information, see Patiño, Poveda, and Rojas (2022), Barrero Castellanos et al. (2021), Chanda (2021), López (2018), Weresa and Kowalsk (2020), Mezinova and Shepel (2019), Sethi et al. (2021), Meyer (2007), Py and Hatem (2009), Lassmann and Volpe Martincus (2023), among others.

[71] LAC countries scored an average 46.5/100 on the individuals component of the Network Readiness Index (NRI), compared to an average of 51.4 in OECD countries (Dutta and Lanvin, 2023).

FIGURE 23 • HUMAN CAPITAL INDICATORS
(Selected indicators and regions, 2012 and 2022) *(continued)*



Source: IDB Integration and Trade Sector based on the EF EPI and the United Nations Human Development Report.
Note: [a] A value of 1 was assigned to English-speaking countries that are not included in the EF EPI.

have reached the highest level.[72] Both human capital indicators are associated with higher KBS exports (Figure 23c and d). This outlook reveals the challenges that LAC faces in scaling up exports of these services, both in terms of volumes and sophistication levels. Given how Latin American adolescents score on the Programme for International Student Assessment (PISA) tests across all assessed areas (mathematics, science, and reading comprehension), improvements in this domain are unlikely in the medium term.[73]

Given that KBS exports are largely delivered remotely, the coverage, quality, and affordability of connectivity services are all critical. LAC countries still face significant connectivity gaps in comparison to developed economies, among countries in the region, and within each country (rural vs. urban areas, among different income levels, across companies of varying sizes, etc.).[74]

There are significant digital connectivity gaps.

[72] This indicator evaluates the English proficiency of people who take standardized English tests. Out of a total of 113 countries, those in LAC rank between 28th (Argentina, high) and 99th (Haiti, very low). The index does not include the English-speaking countries in the Caribbean (Education First, 2023).

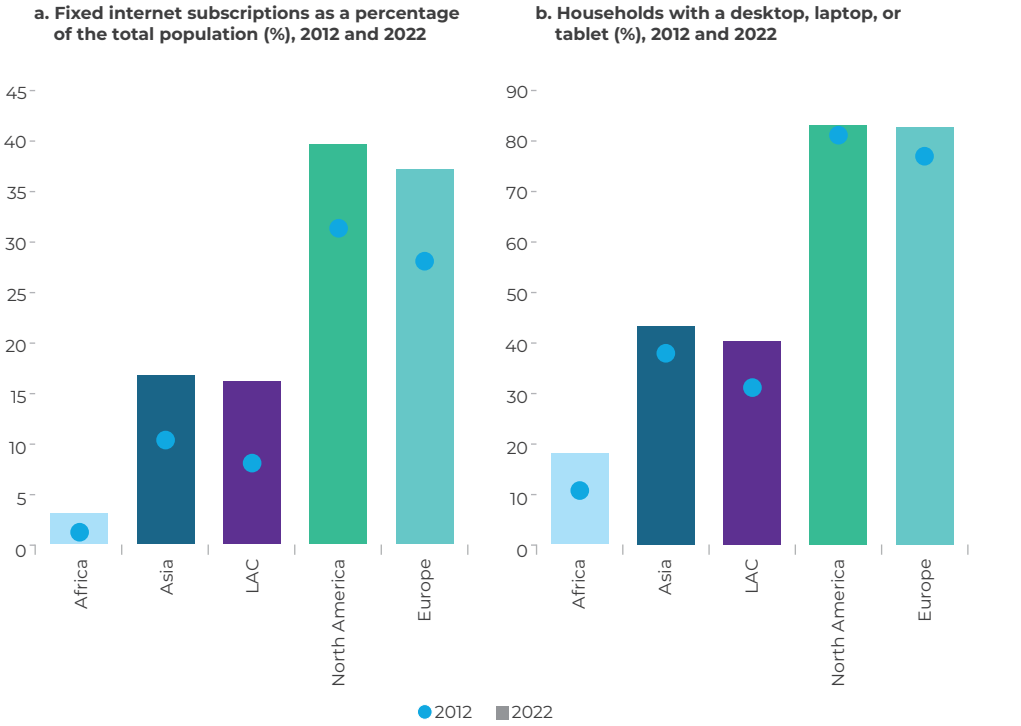
[73] Gayá (2024).

[74] CEPAL and Centro Regional de Promoción de la MIPYME (2022), Weresa and Kowalski (2020), López (2018), Gayá (2024), Ramasamy and Yeung (2010), Chanda (2021), Sethi et al. (2021), and ECLAC (2024), among others.

In LAC, fixed internet subscriptions (measured as a percentage of the total population) are less than half of those of Europe and North America, despite doubling over the past decade (Figure 24a). A similar trend is observed in the share of households with a computer, be it a desktop, laptop, or tablet (Figure 24b). Higher levels of both indicators are associated with greater KBS exports (Figure 24c and d). Further insight into the region's connectivity landscape is provided by the IDB's Broadband Development Index (IDBA),[75] which measures connectivity quality across 30 variables grouped into four areas, one of which is ICT infrastructure. Out of a list of 65 LAC and OECD countries, those in the region rank between 34th (Chile) and 64th (Nicaragua). The variables in the infrastructure pillar highlight not only that a smaller share of the population in LAC has internet access relative to the OECD average, but also that the quality of connectivity is markedly lower.[76]

Internationalization requires significant investment, and KBS exporters often face greater hurdles in securing bank credit compared to other industries. The main reason for this is that their capital is largely intangible and they have limited physical assets to use as collateral. Credit availability in LAC's private sector, measured as a percentage

FIGURE 24 • CONNECTIVITY INDICATORS
(Selected indicators and regions, 2012 and 2022)



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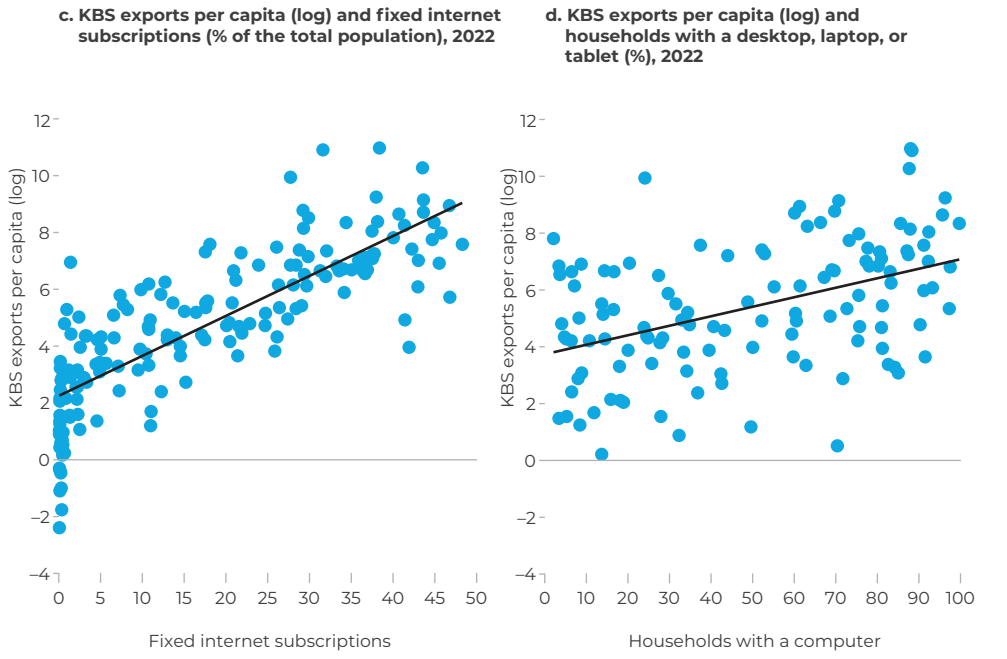
[75] García Zeballos et al. (2023).

[76] The international fixed broadband speed is 55.07 bps in LAC and 108.41 bps in the OECD. These figures are averages weighted by country for each region (García Zeballos et al., 2023).

FIGURE 24 • CONNECTIVITY INDICATORS
(Selected indicators and regions, 2012 and 2022)



Source: IDB Integration and Trade Sector based on ITU.
Notes: Refers to fixed internet subscriptions with download speeds of at least 256 kbps.

of GDP, ranks among the lowest globally (Figure 25a). While this issue is not unique to LAC, the region's underdeveloped capital market and venture capital funds make financing even more challenging.[77] In addition, financial institutions are often unfamiliar with KBS business models, which differ substantially from those of traditional sectors. As a result, they are more hesitant to lend to KBS firms. Despite the positive correlation between credit availability and KBS exports (Figure 25b), the empirical analysis in Box 13 excludes this variable due to its lack of statistical significance, underscoring the need for targeted financing instruments for the KBS sector.

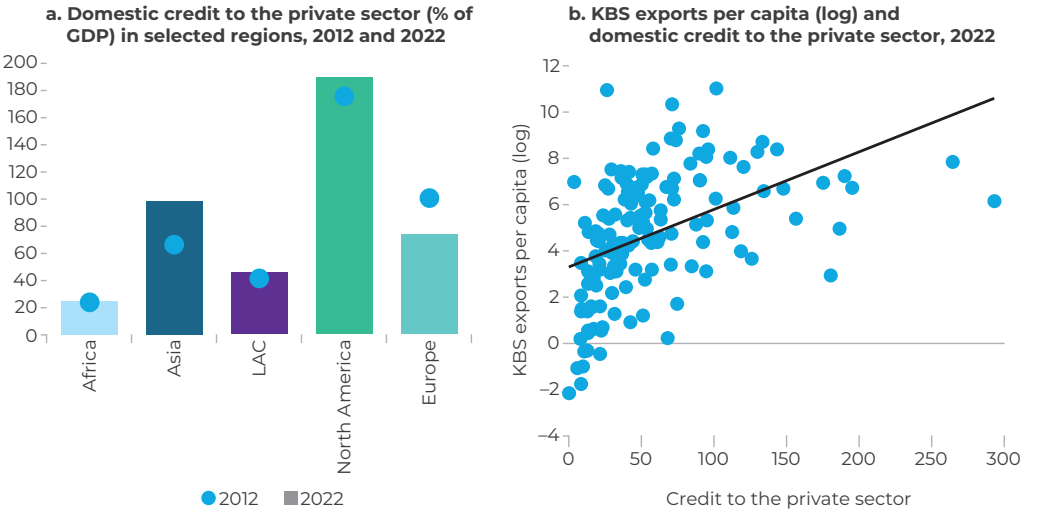
The lack of targeted financing instruments is an obstacle for KBS firms.

Restrictions to foreign market access

In addition to the domestic constraints on the competitiveness of supply, LAC's KBS exports often face regulatory barriers abroad. These include rules specifically designed

[77] See Peña Capobianco (2019 and 2021), Barrero Castellanos et al. (2021), and Barrero Castellanos et al. (2019), among others.

FIGURE 25 • CREDIT INDICATORS
(Credit to the private sector, 2012 and 2022)



Source: IDB Integration and Trade Sector based on World Bank.

Various types of regulatory barriers affect KBS trade.

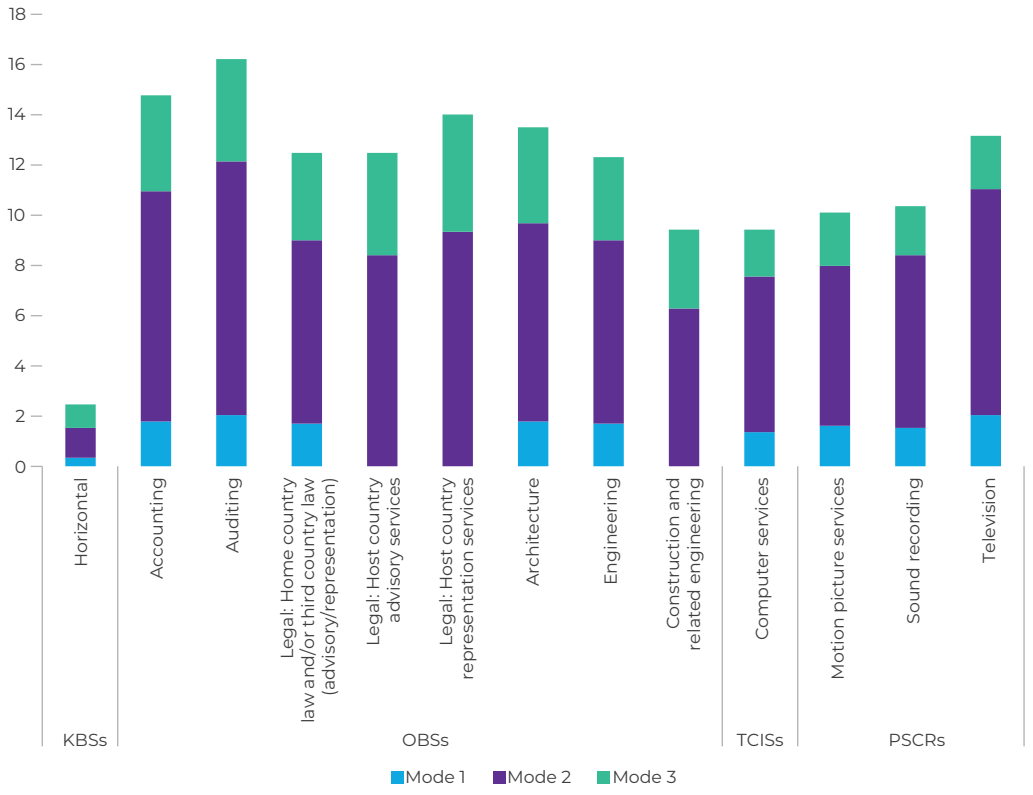
to restrict trade, as well as other requirements and regulations that may hinder exports even if this is not their specific aim.[78] The first group includes quantitative restrictions and measures that favor domestic suppliers over foreign firms. The second encompasses licensing requirements, the regulation of certain professions, and data protection laws, which may hamper market access despite not necessarily being discriminatory. The extent and nature of these barriers vary significantly by delivery mode, sector and subsector, and destination market.

Considering the mode of supply, the World Bank and WTO's Services Trade Restriction Index (STRI)[79] finds that most obstacles impact services delivered through a commercial presence (mode 3)—that is, through foreign direct investment—and through the temporary movement of natural persons to provide services in foreign markets (mode 4) (Figure 26). Mode

Most market access barriers affect supply via modes 3 and 4.

[78] See Nordas and Rouzet (2015), Ciuriak and Lysenko (2016), and Hoekman and Shepherd (2021), among others.
[79] The database is compiled from a collection of regulatory measures that impact trade in services. Using this data, the STRI is calculated for 134 countries (including 13 from LAC), across 34 sectors (12 of which are KBSs). The index evaluates five types of measures: market access conditions, operational requirements, competition-related policies, administrative procedures and regulatory transparency, and other barriers. These measures are classified and weighted based on their impact. The STRI ranges from 0 (completely open to trade) to 100 (closed to trade). Generally speaking, a score of over 75 indicates high levels of restriction, while one under 25 is low. For more details and methodology, see World Bank and WTO (2024).

FIGURE 26 • RESTRICTIONS TO KBS TRADE BY MODE OF SUPPLY
(Average number of restrictions identified per country,[a] most recent data, 2019–2022)



Source: IDB Integration and Trade Sector based on STRI data from WTO and World Bank.
Note: [a] Average number of restrictive measures by mode of supply and export category in 134 countries.

3 barriers are particularly high in some Asian countries, such as Thailand, China, India, and Korea, but they also play a role in LAC's largest market, Brazil. Mode 4 restrictions are most prevalent in some European and Asian economies like Poland, Singapore, Switzerland, Estonia, and China, among others.

The most frequently applied measures impacting KBS trade (including those applied across sectors) according to the STRI are competition-related rules that influence firm behavior (e.g., limitations on price-setting) and requirements affecting service delivery processes. Examples include nationality or residency requirements for directors or managers, local employment quotas, restrictions on cross-border data flows, and requirements to store data on servers located in the destination country as a condition to supply services. Other significant regulatory barriers for KBSs include market entry conditions (e.g.,

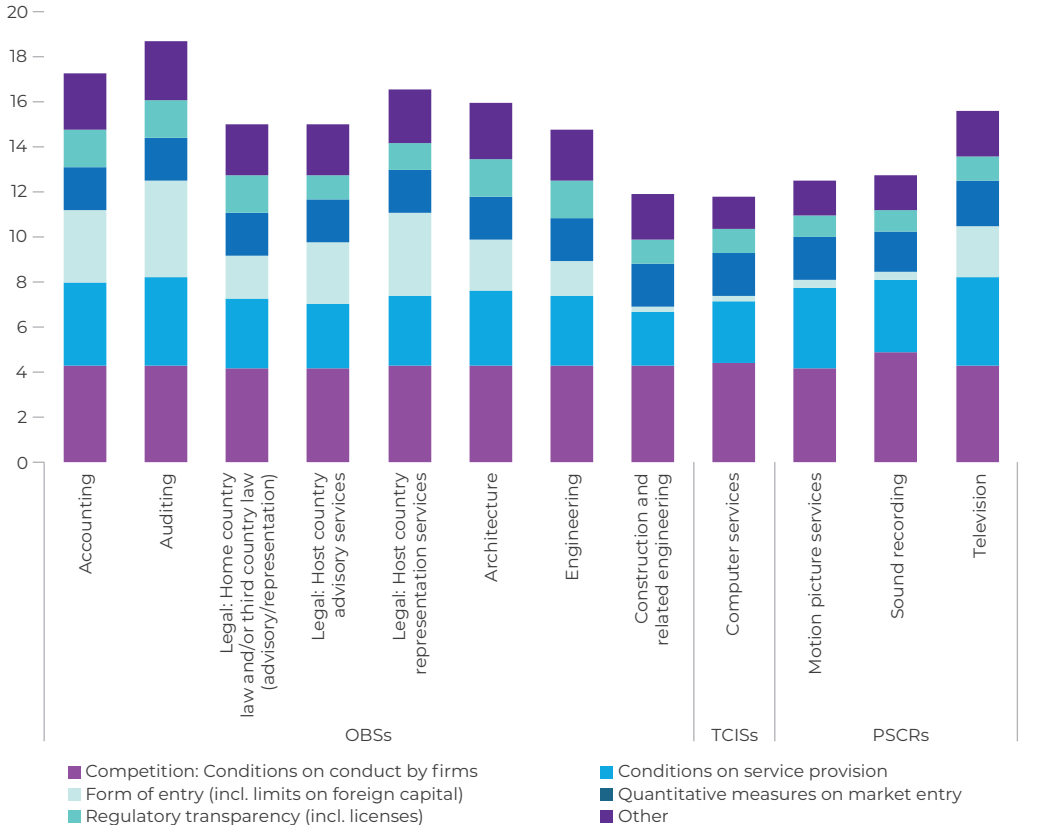
Regulations affect competition and service delivery processes.

restrictions on foreign capital) and other quantitative measures, particularly those affecting services provided by natural persons (Figure 27).

In terms of sectors, the highest barriers to trade in KBSs are in OBSs and primarily affect regulated professions, such as legal, accounting, auditing, architectural, and engineering services (Figure 27). The most common restrictions in the STRI database include caps on foreign capital, commercial presence requirements, mandatory partnerships with local firms to provide the service, or the need for professional licenses, which are often hard for graduates from other countries to obtain. As a result, LAC's OBS exports are concentrated in less restricted segments, such as legal, accounting, and administrative services that do not require professional licenses, while the barriers mentioned above

Professional and audiovisual services are the most restricted.

FIGURE 27 • RESTRICTIONS TO KBS TRADE BY TYPE AND SECTOR
(Average number of restrictions identified per country,[a] most recent data, 2019–2022)



Source: IDB Integration and Trade Sector based on STRI data from WTO and World Bank.
Note: [a] Average number of restrictive measures by type and export category in 134 countries. Data includes horizontal measures.

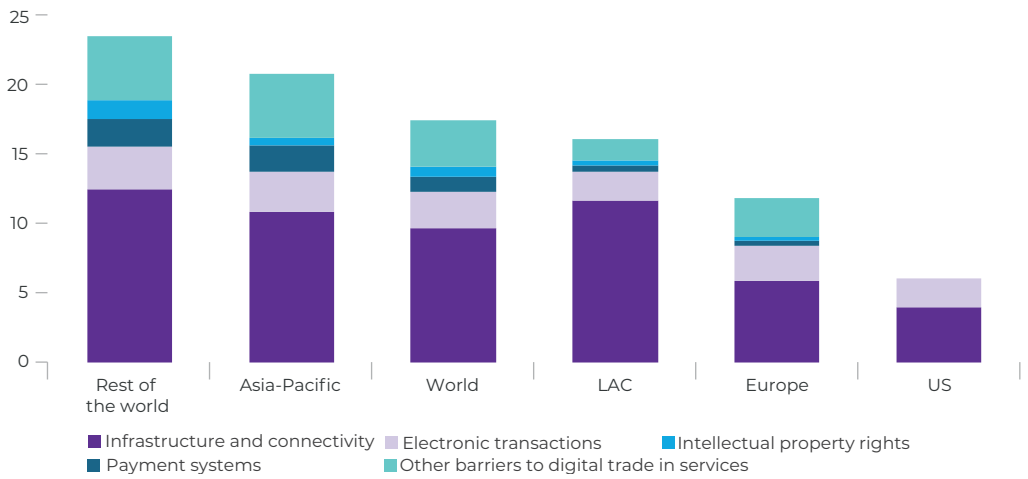
limit the region's participation in other OBS categories. There are also considerable constraints in certain audiovisual segments (e.g., television), in which screen quotas limit the share of foreign content in broadcasting. In contrast, the IT sector faces the fewest hurdles.

Digital trade faces specific regulatory barriers.

While barriers to trade via mode 1 (cross-border supply) are generally lower, the OECD's Digital Services Trade Restriction Index (DSTRI)[80] provides further insight into the specific challenges LAC providers face when exporting services digitally. Throughout the world, the highest barriers are associated with the infrastructure and connectivity area (Figure 28), mainly in relation to competition in telecommunications services and restrictions on cross-border data flows (e.g., only allowing data transfers to countries with certain personal data protection standards).

In terms of destination markets, most KBS exports from LAC are to countries with relatively low regulatory barriers. According to the STRI, the US imposes fewer obstacles than most trading partners, while restrictions are greatest in the Asia-Pacific countries (Figure 29). A similar pattern is evident for trade in digital services as measured by the DSTRI: the US market has the fewest restrictions, while Asia-Pacific and the rest

FIGURE 28 • RESTRICTIONS TO DIGITAL TRADE BY PILLAR AND DESTINATION MARKET
(Index max.=100, simple average of countries in each region, 2023)

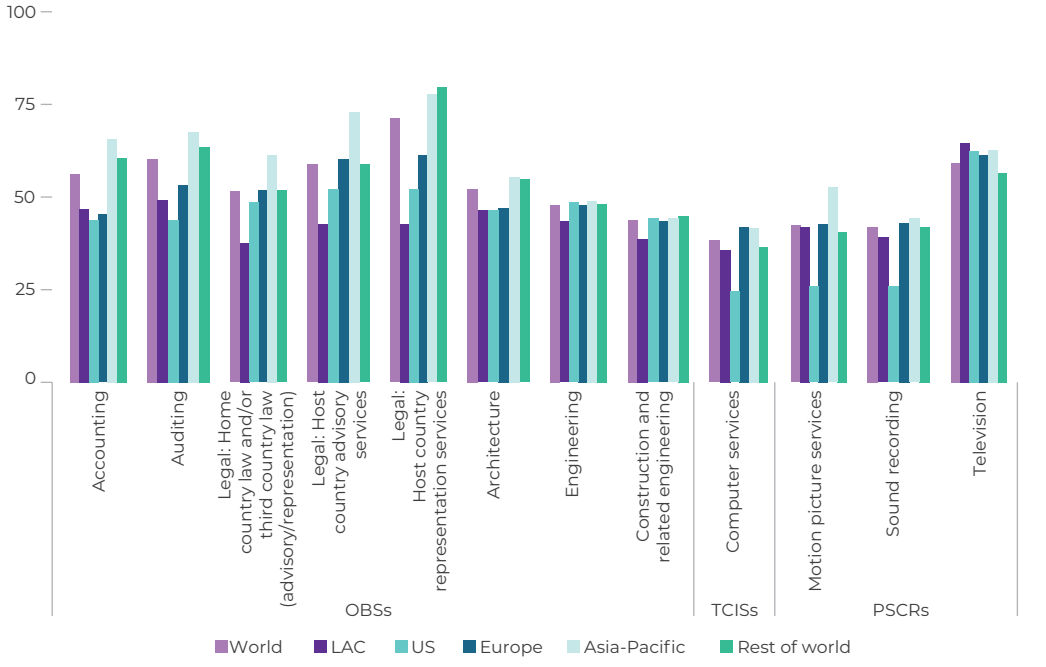


Source: IDB Integration and Trade Sector based on the OECD's DSTRI.

[80] The index is calculated for 90 countries and captures crosscutting barriers that affect all digitally traded services. The methodology and results of the DSTRI are not strictly comparable to those of the STRI. See Ferencz (2019) for methodological details

[81] The geographic coverage of the STRI and DSTRI are different, so the regional figures and global totals are not strictly comparable.

FIGURE 29 • RESTRICTIONS TO KBS TRADE BY DESTINATION MARKET
(Index max.=100, simple average of countries in each region, most recent data, 2019–2022)



Source: IDB Integration and Trade Sector based on STRI data from WTO and World Bank.

The barriers to entry to the US market are relatively low.

of the world group have above-average barriers (Figure 28).[81] The US market is characterized by low barriers to trade in computer services and certain segments of the audiovisual sector but imposes higher restrictions on television and professional services, particularly legal services. There are fewer obstacles when KBSs are delivered via cross-border supply (mode 1) or commercial presence (mode 3), but these increase when exports involve the movement of natural persons (mode 4). The regulatory limitations in European economies are similar to those in the US but tend to be higher across almost all KBS sectors.

LAC imposes fewer restrictions on KBS trade than the global average across all categories except television, although there are significant differences across sectors and countries (Table 8). As in other parts of the world, the sectors facing the highest barriers are television, auditing, accounting, architecture, and engineering, while computer services encounter fewer restrictions. Barriers to KBS trade are lowest in Uruguay and Ecuador and highest in Panama and Brazil. The restrictions tracked by the DSTRI are also lower in LAC than the global average, and South America

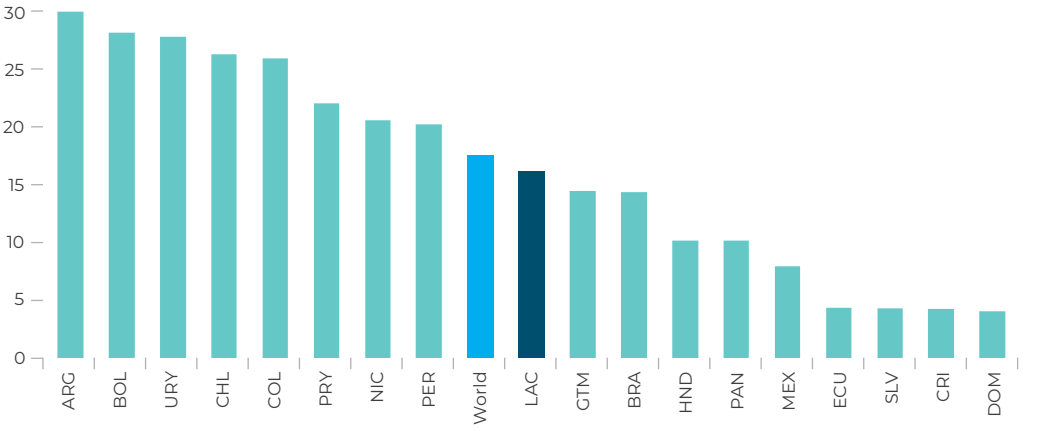
There is potential to reduce barriers to intraregional trade in KBSs.

TABLE 8 • RESTRICTIONS TO KBS TRADE IN LATIN AMERICA AND THE CARIBBEAN
(Index max.=100, most recent data, 2019–2022)

Sector	World	LAC	ARG	BLZ	BRA	CHL	COL	CRI	DOM	ECU	JAM	MEX	PAN	PER	URY
Accounting	56.1	46.9	58.4	41.5	46.2	44.5	41.2	48.3	60.1	39.3	37.2	38.5	100.0	37.0	17.9
Auditing	60.1	49.5	59.6	29.1	48.6	44.5	51.3	65.0	60.1	51.3	37.2	40.2	100.0	38.5	17.9
Legal: Home country law and/or third country law (advisory/ representation)	51.4	37.8	34.4	28.4	58.1	44.5	30.0	30.9	35.8	30.9	33.0	38.5	71.0	35.2	20.6
Legal: Host country advisory services	59.0	42.8	33.9	55.4	47.6	54.1	25.0	38.8	32.2	26.0	48.0	35.5	100.0	33.8	26.0
Legal: Host country representation	71.3	42.8	33.9	55.4	47.6	54.1	25.0	38.8	32.2	26.0	47.7	35.5	100.0	33.8	26.0
Architecture	52.3	46.6	37.1	42.1	51.2	50.5	35.2	41.0	56.4	30.9	100.0	38.5	67.6	37.0	17.9
Engineering	47.7	43.5	37.1	41.3	52.3	50.5	41.4	41.0	56.4	30.9	53.5	38.5	67.6	37.0	17.9
Construction and related engineering	44.0	38.8	32.3	33.3	48.6	45.3	33.8	41.9	54.2	26.0	39.9	37.3	56.4	35.6	19.3
Computer services	38.3	35.8	38.4	25.4	47.1	45.9	38.9	44.3	38.4	33.0	14.2	41.1	42.5	40.3	16.3
Motion picture services	42.4	41.9	57.6	47.9	54.1	42.1	52.1	38.9	35.7	30.8	25.0	53.2	38.8	54.8	13.8
Sound recording	42.0	39.3	54.7	45.6	47.2	55.1	38.4	35.3	35.7	30.8	20.7	40.3	38.8	54.3	13.8
Television	59.3	64.7	67.2	53.7	77.8	68.8	84.8	55.8	45.7	57.7	20.7	84.5	64.5	95.6	63.8
Simple average for KBS sectors	52.0	44.2	45.4	41.6	52.2	50.0	41.4	43.3	45.2	34.5	39.8	43.5	70.6	44.4	22.6

Source: IDB Integration and Trade Sector based on WTO.

FIGURE 30 • RESTRICTIONS TO TRADE IN DIGITAL SERVICES IN LATIN AMERICAN COUNTRIES
(Index max.=100, 2023)



Source: IDB Integration and Trade Sector based on the OECD's DSTRI.

generally poses greater constraints than Central America (no data is available for the Caribbean) (Figure 30). This scenario suggests that there is potential to develop intra-regional trade in KBSs by facilitating digital trade and reducing regulatory barriers, particularly in certain audiovisual and professional segments.[82]

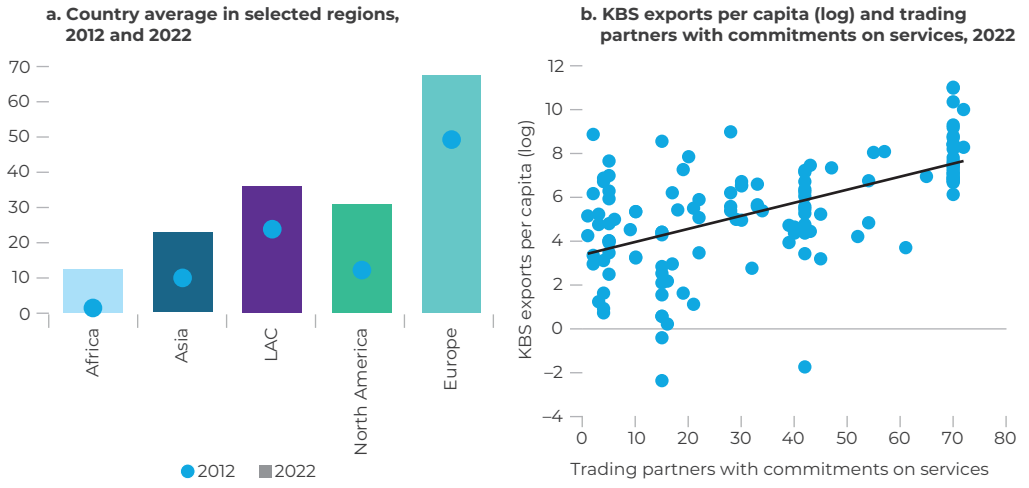
Regional or preferential trade agreements can help reduce market access barriers through specific commitments in services beyond those of the GATS. Specifically, they can do so by including more sectors in positive lists and/or adding commitments in areas such as investments (relevant for mode 3), intellectual property, e-commerce (which affects mode 1), and public procurement (by establishing the conditions under which suppliers provide their services to government agencies).[83] However, trade agreements do not exempt foreign service providers from complying with certain regulatory requirements in the destination markets that apply equally to local providers (e.g., having a license to practice a regulated profession or adhering to competition policy provisions). Likewise, they do not eliminate other obstacles such as immigration regulations that limit the provision of services

Trade agreements increase transparency and predictability.

[82] However, the estimates in Giordano and Ortiz De Mendívil (2021) (using 2015 data) show that the ad valorem cost of trade in LAC in all sectors is higher than the average for other regions. The cost of trade is higher than the world average in all Latin American countries included in the analysis (Argentina, Brazil, Chile, Colombia, Costa Rica, Mexico, and Peru) in OBSs and TCISs (except in Argentina). The data indicates the existence of other costs that are not exclusively related to barriers determined by regulations in destination markets.

[83] See Mattoo et al. (2020) and Borchert and Di Ublado (2021), among others.

FIGURE 31 • TRADE AGREEMENTS WITH SERVICE PROVISIONS
(Number of partners with agreements in force, 2012 and 2022)



Source: IDB Integration and Trade Sector based on data from the WTO Regional Trade Agreements Database.

via the movement of natural persons (mode 4). Therefore, the main contribution of trade agreements is enhancing transparency and predictability around the rules affecting trade in services, consolidating multilateral commitments, and preventing the emergence of new barriers in the future.[84]

LAC is relatively well-positioned when it comes to trade agreements: according to data from the WTO's Regional Trade Agreements Database, LAC's economies have agreements that include service commitments with 36 countries,[85] higher than the averages for Africa, Asia, and North America (Figure 31). However, the coverage of service agreements across the region is uneven in terms of both the number of agreements signed and the extent of the commitments each includes. Panama, Costa Rica, the Pacific Alliance countries, and those in the Caribbean have agreements in force containing service provisions with a larger number of partners, whereas the MERCOSUR countries have signed very few such agreements, and Bolivia and Venezuela have none in effect. Most of LAC's agreements with service commitments are with the US, the UK, Korea, Canada, EFTA, and some partners within the region. However, the scope and depth of provisions of these agreements on services in general

The region has numerous trade agreements with service provisions.

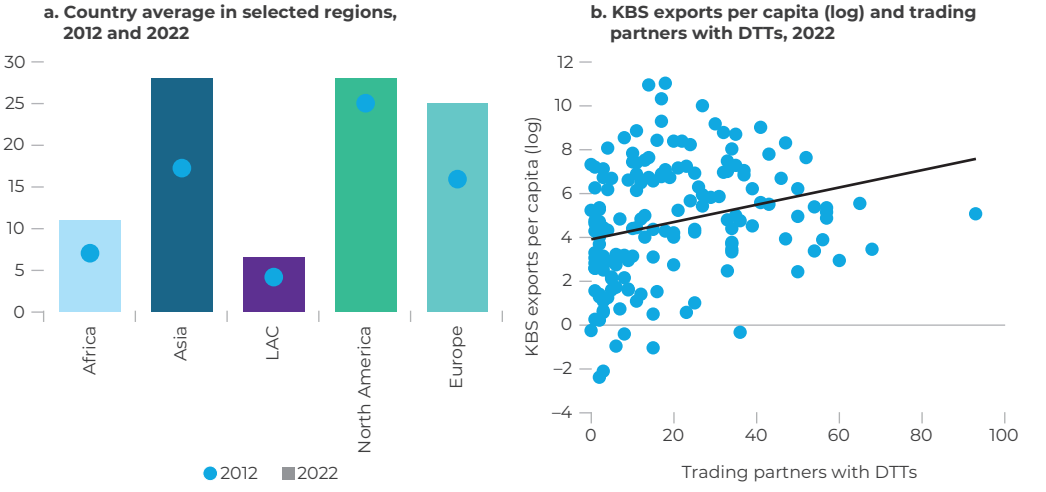
[84] See Shingal (2010), Barrero Castellanos et al. (2021), López (2018), Guillin, Rabaud, and Zaki (2023), among others.
[85] A single agreement may involve more than one counterpart (e.g., agreements with the EU cover 27 partners).
[86] See Giordano and Ortiz (2021) for a general analysis and Giordano et al. (2017) for the coverage and depth of the digital trade provisions in the region's agreements.
[87] See Mattoo et al. (2020).

and digital trade in particular[86] fall short of the levels of best international practices.[87]

Double taxation is one of the main obstacles to intraregional trade in services.

In addition to traditional barriers to trade, one major obstacle in the case of KBS exports (particularly via mode 1) are the income taxes many countries impose on service imports, which typically range between 10% and 35% of the amount invoiced. This becomes a more significant constraint when export earnings are also taxed in the country of origin, as occurs in some of the larger LAC economies.[88] Double taxation is one of the most significant barriers to intraregional trade and also helps explain why such a large share of LAC KBS exports are to the US market, which does not apply taxes to service imports (although it does so on intellectual property royalties). Trade agreements do not address double taxation, which is dealt with through double taxation treaties (DTTs), which establish mechanisms through which parties tax income in a single country, reduce foreign taxes, and/or allow full or partial offsetting of the tax owed in the country of origin. As Figure 32 shows, there is a positive correlation between KBS exports per capita and the number of DTTs a country has signed. In this sense, a recent study based on a survey of tax specialists in 10 LAC countries underscores the importance of DTTs for trade in IT services.[89]

FIGURE 32 • DOUBLE TAXATION TREATIES
(Number of partners with agreements in force, 2012 and 2022)



Source: IDB Integration and Trade Sector based on International Centre for Tax and Development (ICTD).

[88] See Peña Capobianco (2024).
[89] See Trachtenberg (2022).

On average, LAC countries have DTTs in place with just seven countries, the lowest level globally and roughly four times less than the average in Asia, North America, and Europe (Figure 32). Mexico, Barbados, Brazil, and Chile are the LAC economies with the most DTTs in force, while some Central American and Caribbean countries have yet to sign any. In some countries, such as Ecuador, Panama, Paraguay, and Uruguay, service exporters are not jeopardized by double taxation thanks to unilateral schemes to avoid it or because they do not tax income from exports. Most of LAC's DTTs are with extraregional trade partners, notably Canada and European economies like Spain, the UK, Switzerland, France, and Italy. Mexico, Brazil, and Chile are the LAC countries with the highest number of intraregional DTTs.

LAC has a negligible number of double taxation treaties.

Unilateral reforms and international agreements are needed to promote KBS exports.

The statistical evidence presented above suggests that governments could support the private sector in increasing KBS exports by implementing unilateral reforms that address the factors underlying the region's lag in competitiveness while also negotiating agreements that aim to reduce market access barriers. Box 13 summarizes the findings of an empirical analysis of the impact of variables associated with domestic and external barriers to KBS trade, with the aim of assessing the extent to which these factors influence global KBS export performance. The results emphasize the importance of educational standards and the quality of the regulatory environment. Other significant factors include digital infrastructure, service provisions in trade agreements, and, in particular, the existence of DTTs.

In conclusion, despite the growth in KBS exports over the last decade, LAC economies have yet to fully unlock the potential of this fast-growing segment of global trade. To scale both the volume and sophistication of KBS exports, attract more investment, create more high-quality jobs, and address the challenges posed by the rise of AI, the region must fast-track public policies that aim to address certain critical challenges. These include developing human capital, enhancing the quality of institutions and regulatory frameworks, investing in connectivity infrastructure, and developing financing instruments tailored to the specific needs of the service sector. These unilateral initiatives should be rooted in an improved knowledge base on the service sector and be accompanied by preferential and multilateral initiatives to remove barriers preventing access to foreign markets, particularly within the region itself.

BOX 13 • EMPIRICAL ANALYSIS OF COMPETITIVENESS DRIVERS IN KBS EXPORTS

This section uses a panel data model to empirically assess the impact of various factors described above that influence countries' KBS exports, during the 2012–2022 period. The selected variables are listed in the following table.

DRIVERS OF KBS EXPORTS
(Selected indicators, 2012–2021)

Component	Variable	Description	Source
Dependent variable	KBS exports per capita	KBS exports per inhabitant, in US$	UNCTAD and IMF
Connectivity	Internet	Fixed internet subscriptions with download speeds of at least 256 kbps, as a proportion of the total population	ITU
	Computers	Proportion of households with a desktop, laptop, or tablet computer.	ITU
Human capital	Education	Average of Share of the population over 25 with at least some secondary education and English Proficiency Index	United Nations Human Development Report and EF EPI
Quality of institutions	Governance	Worldwide Governance Index, which takes the value of 1 if the country score is above the average, and 0 otherwise.	World Bank Worldwide Governance Indicators
International regulatory framework	Trade agreements	Number of trading partners with which each country has trade agreements that include specific commitments on services.	Authors based on data from the WTO Regional Trade Agreements Database
	Double taxation treaties	Number of trading partners with which each country has double taxation treaties in force.	ICTD

Source: IDB Integration and Trade Sector based on ITU, EF EPI, UN, World Bank, ICTD, UNCTAD, WTO, and IMF.

The proposed panel data model is as follows:

$$Log\ KBS\ per\ capita_{it} = \alpha + \beta_1\ internet + \gamma_1\ computers_i + \delta_1\ education_i + \vartheta_1\ governance_i + \mu_1\ trade\_agreements_i + \rho_1\ taxation\_treaties + v_i + \varepsilon_{it}$$

where:

- i refers to the countries included in the regression
- t refers to the years analyzed
- v_i represents time-invariant, specific unobservable effects for each unit
- ε_{it} are idiosyncratic errors with standard properties

(continued on next page)

BOX 13 • EMPIRICAL ANALYSIS OF COMPETITIVENESS DRIVERS IN KBS EXPORTS *(continued)*

After applying the tests needed to choose between the different specifications described in Methodological Annex 6, the model was estimated using the fixed-effects specification based on the within transformation. The regression results are shown in the table below. As expected, the results confirmed that all the variables of interest have a positive impact on KBS exports, with a high level of statistical significance.

RESULTS
(Estimates using a fixed-effects model)

Dependent variable	Explanatory variables	Coefficient	Standard error	P value	
KBS exports per capita (log)	Fixed internet subscription	0.023	0.007	0.002	***
	Computers per household	0.011	0.005	0.046	**
	Education	1.250	0.546	0.025	**
	Quality of institutions	0.129	0.078	0.100	*
	Trade agreements	0.005	0.003	0.062	**
	Double taxation agreements	0.016	0.007	0.034	**
	Constant	3.019	0.517	0.000	***

Source: IDB Integration and Trade Sector based on ITU, EF EPI, UN, UNCTAD, World Bank, ICTD, and IMF.
Notes: n=667; R^2=0.3835; Sigma u=1.3885; Sigma e=0.2218; Rho=0.9751. Huber/White robust standard errors.
*** Significant at the 99% confidence level (highly significant), ** significant at 95% (significant), * significant at 90% (marginally significant).

Connectivity (measured as the share of the population with fixed broadband subscriptions and the percentage of households with a desktop, laptop, or tablet computer) has a highly significant positive association with KBS exports per capita. The value for the parameter for the first variable indicates that a 1-percentage-point (p.p.) increase in fixed broadband subscriptions would raise KBS exports per capita by 2.3%, *ceteris paribus*. The results for the second variable show that a 1-p.p. increase in the share of households with computers would boost KBS exports per capita by 1.1%, *ceteris paribus*. Since the dependent variable is expressed in log, the coefficients for the continuous variables suggest that an absolute change in these variables would have a multiplicative (percentage) effect on the dependent variable.

Similarly, human capital, measured as the share of population over 25 with at least some secondary schooling and English proficiency, contributes significantly to growth in KBS exports per capita. The values for the parameter imply that a 1-p.p. increase in this indicator (normalized between 0 and 1) would lead to a 12.5% rise in KBS exports per capita, *ceteris paribus*.[a]

The variable for the quality of institutions (measured through the Worldwide Governance Index) shows that improvements to this indicator that pushed a country above the average level would bring an increase in KBS exports per capita of around 12.9%.

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BOX 13 • EMPIRICAL ANALYSIS OF COMPETITIVENESS DRIVERS IN KBS EXPORTS *(continued)*

Finally, trade agreements and DTTs also prove critical to KBS export performance, with a high level of significance. The implementation of a trade agreement that includes service commitments with a new partner would increase KBS exports per capita by 0.5%, while the signing of a DTT would raise them by 1.6%. However, it should be noted that such agreements only boost bilateral trade between signatories, while the variables mentioned above have a broader impact on total KBS exports. As a result, their coefficients are not strictly comparable.

In conclusion, this empirical analysis suggests that two key dimensions significantly influence KBS exports: education (particularly English proficiency) and the quality of institutions. Looking at infrastructure, high-speed fixed broadband connections are crucial, while other variables such as mobile internet connections proved insignificant. Lastly, the results on commitments on services in trade agreements and the signing of DTTs reveal that the latter play a more prominent role in driving KBS exports.

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[a] Since the dependent variable is logged and the independent variable has been normalized between 0 and 1, the coefficient of the latter must be interpreted differently. In this case, the independent variable *education* has been normalized between 0 and 1, with 0 representing the minimum original value and 1 the maximum. The coefficient δ reflects the effect of the unit change in the normalized variable (*education*)—that is, the effect of *education* moving from the minimum (0) to the maximum (1). This means that if *education* moves from 0 to 1, the dependent variable log *KBS exports per capita* would increase by 125%. Put differently, a 0.1 increase in *education* (10% of the total range) would lead to a 12.5% increase in log *KBS exports per capita* (1.25 x 0.1 = 0.125, corresponding to a 12.5% increase).

Conclusions

Following a series of shocks in recent years, 2024 saw global trade in goods shift back to the sluggish growth path that prevailed between the Global Financial Crisis and the outbreak of Covid. This return to what was then referred to as "the new normal" has unfolded in a global landscape fraught with uncertainty over the factors that will shape the economic outlook in the months ahead. At the same time, new forces are redefining globalization and Latin America and the Caribbean's patterns of international integration in the coming years.

After reaching record highs due to the war in Ukraine, the prices of the region's main export commodities fell somewhat before stabilizing at relatively high historic levels. While the impact on individual countries varied due to differences in trade patterns, the region's overall terms of trade and trade balances improved as a result of import prices falling more sharply than export prices. However, throughout the year, the factors underlying price volatility have become more pronounced: the conflict in the Middle East in the case of oil; uncertainty over the impact of China's economic stimulus program on metals; and the effect of extreme weather events on agricultural products. Given this context, the price channel is unlikely to provide significant, consistent, long-term support for export values.

Although the region's goods exports grew at higher rates than the global average in real terms, the factors underlying this trend remain fragile and are concentrated in a handful of economies. Predictive models do not yet foresee a turning point that would put the region on a path to sustained recovery. Throughout 2024, growth forecasts for Latin America and the Caribbean's trading partners were downgraded, trade operators once again became pessimistic, and high-frequency data pointed to trends weakening amid a volatile trade environment. Looking ahead, the outlook is marked by downside risks associated with geopolitical tensions, the rise of industrial policies, a resurgence of protectionism, and ongoing macroeconomic challenges in several advanced and emerging economies that may suppress demand for the region's exports.

In contrast, global trade in services has shown remarkable resilience. Despite a slight slowdown compared to 2023, service exports from Latin America and the Caribbean continued to grow robustly, outperforming the global average. The travel

sector continues to recover from the impact of Covid, and its growth underscores the region's dependence on traditional services. All the same, the growing importance of knowledge-based services should not be overlooked.

From a long-term perspective, global trade's return to a low-growth path calls for reflection on the environment in which Latin America and the Caribbean's trade relations will operate in the future. How will the increasing fragmentation of the global trading system impact the region's pattern of international integration? What costs and benefits will it bring? More importantly, what factors will drive competitiveness in the new phase of globalization that is emerging?

The export sector played a crucial role in the development of Latin American and Caribbean economies, both during the boom years of globalization, and the slowdown, turbulence, and repeated shocks of recent years. It is therefore paramount to continue driving growth through international trade. Achieving this goal will require targeting the reforms and investments needed to keep the region internationally competitive in the global marketplace, supporting the adaptation to shifting agricultural and industrial value chains, and seizing emerging opportunities in the rapidly changing services market.

During the so-called new normal of the past 15 years, global trade has followed a different pattern than in earlier decades. Amid heightened volatility, the average growth rate for trade in goods has slowed, while the opposite has been true for trade in services, particularly knowledge-based services. The growing market for trade in tasks has opened up new opportunities, driven by advances in information and communication technologies and the dematerialization and digitization of trade. Other key influences have included the "servicification" and "servitization" of production processes and regulatory changes. The latter have encompassed both domestic sectoral support policies and international agreements in various domains.

However, as this report documents, in Latin America and the Caribbean knowledge-based service exports have grown less than in the rest of the world. They are also concentrated in relatively less sophisticated segments that are more vulnerable to advances in artificial intelligence. To close this gap, the region must address lags in various internal drivers for competitiveness while also overcoming the significant regulatory barriers that hinder access to external markets, particularly intraregional ones. To sustain these labor-intensive exports and catalyze their spillover effects on productivity, governments will need to push complex, broad-reaching domestic agendas.

To enable the design of effective, evidence-based policies, countries in Latin America and the Caribbean must urgently invest in creating a solid knowledge base that aligns with international standards and best practices. Data initiatives that would provide a more granular view of the sector include adopting next-generation classification criteria, tracking the origin and destination of trade flows, including commercial

presence as a mode of supply in statistics, and gathering firm-level transaction data. Such approaches would give rise to better policy tools and enable the effects on production and trade to be monitored and evaluated. There is room to expand and strengthen cooperation initiatives and the exchange of best practices among countries in Latin America and the Caribbean and with more advanced economies outside the region.

Given the highly dynamic nature of services, policy interventions must be designed in close coordination with the private sector. Export promotion and investment attraction agencies have a key role to play in this process. Not only can agencies help to address the information gaps and asymmetries that plague the internationalization strategies of services-exporting firms, but they can also provide authorities with insights into the public policies needed to address the most pressing priorities for the private sector.

The situation varies significantly from country to country, such that individual assessments are warranted. However, in general, the region has an opportunity to undertake unilateral reforms to improve the quality of its regulatory regimes. Achieving this goal entails two complementary components of an effective governance of the services sector. The first is strengthening institutions by developing the technical and financial capacities of the relevant authorities, reducing the fragmentation of regulatory regimes across various legal instruments, and promoting coordination among public agencies and between these and the private sector. The second is modernizing regulatory frameworks in various areas, including by simplifying administrative procedures; improving the formalization, flexibility, and efficiency of the labor market; eliminating tax distortions; streamlining incentive programs; protecting intellectual property; and promoting innovation, digitalization, and competition.

Human capital is one of the key factors shaping competitiveness in services, and policy priorities span different areas and time horizons. Latin America and the Caribbean needs to close the significant gap in primary and secondary education, with a focus on digital literacy, STEM subjects, English proficiency, and soft skills. At the level of higher and continuing education, education systems need to be aligned with demand from businesses and adapted to keep up with technological change, so as to transform threats like AI into levers for productivity gains. Success in this area depends on a clear understanding of the responsibilities of the public and private sectors and opportunities for systemic collaboration.

The dematerialization of trade in goods and the growing tradability of services through information and communication technologies mean that digital infrastructure is necessarily at the heart of the agenda. Public networks, enabling conditions for private investment, and regulatory reforms to improve the availability, coverage, speed, and affordability of broadband access are all critical for developing connectivity.

Infrastructure availability and access must be complemented by cutting-edge regulations on matters as varied as data protection, server localization, service provision standards, and corporate codes of conduct to ensure that digital markets can function efficiently.

Because service firms have limited physical assets and their capital is largely intangible, they need specific financial instruments to help them start, grow, and internationalize. Governments must build a competitive environment, foster innovation ecosystems, support the development of territorial clusters around enabling technologies, and promote modern entrepreneurship and start-up development policies. In the financial sector, efforts should focus on the development of seed, venture, and private equity capital, along with the provision of guarantees through innovative schemes that are fit to the services sector's specific needs. Another important line of action is raising awareness of the importance and nature of trade in services among traditional financial institutions.

In addition to domestic reforms that governments can implement unilaterally, progress must also be made on the external front through multilateral, bilateral, and sector-specific negotiations. Here too, the situation in Latin America and the Caribbean varies considerably. Despite the large number of agreements in place in the region, some countries have pioneered next-generation agreements while others have trailed behind. Similarly, while some trade agreements are cutting-edge, others have become outdated. Broadly speaking, current priorities include the need for more active participation in WTO negotiations on key issues for trade in services; the modernization of preferential trade and investment agreements; access to instruments targeting digital trade; the reduction of regulatory distance with major partners; mutual recognition of professional qualifications; protocols to facilitate the movement of natural persons; expansion of the network of double taxation treaties; and more sector-specific agreements, such as those on audiovisual coproductions.

From a broader perspective that extends beyond factors specific to service exports, Latin America and the Caribbean must position itself strategically in the current global landscape. Trade tensions among the major economies are proliferating, while new pockets of protectionism are emerging in relation to trade, technology, energy, and environmental matters. At the same time, public opinion is leaning toward nationalism and away from economic openness. In the face of these challenges, the region needs to advance national reform agendas while reinforcing mechanisms for international cooperation and regional integration. As the analysis presented in this report shows, progress toward greater integration has stalled at both the regional and global levels.

Intraregional trade in final goods and intermediate inputs could be fostered by regional policy initiatives geared towards trade liberalization and facilitation, customs cooperation, regulatory convergence, and the design of programs to support productive

integration, in tandem with policies to stimulate productivity and enhance the quality of the export supply. Similarly, advancing regional digital agendas would facilitate new forms of trade in goods and enable the region to access the most promising services markets. Greater convergence of the trade architecture, stronger regional value chains, and deeper trade in services would not only favor export diversification but would also help make the region more attractive to global investors. Ultimately, a more flexible, pragmatic, effective, and visible approach to regional integration would enable countries in Latin America and the Caribbean to build a critical advantage in the next phase of globalization.

At the same time, to compete in foreign markets, Latin America and the Caribbean needs to take a regionwide approach to closing its infrastructure gap. Reducing transportation costs is essential for local firms to be able to export directly and become efficient suppliers of goods and services within global supply chains. Expanding regional road networks, streamlining ports and airports, and modernizing logistics systems are now more critical than ever. At the same time, the competitiveness of goods and services industries will depend on investments as diverse as expanding the regional fiber optic network, building infrastructure for cross-border electronic payment systems, and extracting, transporting, and processing minerals that will see increased demand as the world transitions to cleaner energy. In turn, developing the extractive industries of the future could generate new skills and knowledge-intensive services exports, as has already happened in the traditional agriculture, fishing, and mining sectors.

These are just some of the challenges that Latin America and the Caribbean is facing in the new phase of globalization, in the aftermath of the shocks of recent years. In a global environment of moderate trade growth amid increased turbulence and fragmentation, the region must prioritize and revitalize policies to support internal productivity, external competitiveness, and regional integration, leveraging emerging opportunities in the fastest-growing segments of global trade, such as knowledge-based services.

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Methodological Annex 1

Estimation of the Value of Global and Regional Trade

This annex summarizes the main aspects of the estimation of the world trade series published by the Netherlands Bureau for Economic Policy Analysis (CPB) and the export series for Latin America used in this publication.

CPB World Trade Monitor

The CPB compiles monthly series on trade flows for each country, drawing on selected sources that publish information online. Once collected, this data is standardized in terms of frequency and currency (US dollars). This allows for the construction of consistent series of values, prices, and volumes. Different techniques are used to estimate the missing observations at the country level for the most recent months. The country data is aggregated regionally, which entails completing missing data for some countries using regional growth rates. The CPB Monitor covers 81 countries. Seasonally adjusted series provided by the primary source are generally used, but when these are not available, seasonal adjustments are made to other available data. The base year for the series is 2021.

Estimates of Latin American Exports

The series of seasonally adjusted exports covers the 18 countries in LA: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay, and Venezuela. This series was constructed using national sources and IDB estimates for Venezuela (see Methodological Annex 2). The Caribbean is not included, as up-to-date monthly data is not available.

Methodological Annex 2

Price, Volume, and Terms of Trade Indices

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

Monthly Series

The decompositions of variations in the price and volume of LA exports in the first half of 2024 presented in Figure 3 (Chapter 1) and Figures 9 and 10 (Chapter 2) come from a monthly aggregate volume index that includes ten countries: Argentina, Brazil, Chile, Colombia, El Salvador, Mexico, Paraguay, Peru, Uruguay, and Venezuela. The export volume indices were calculated using data from official sources for Argentina (National Institute of Statistics and Censuses), Brazil (Center for Foreign Trade Studies Foundation), Chile (Central Bank of Chile), Colombia (Bank of the Republic), Peru (Central Reserve Bank), and Uruguay (Central Bank). The series for El Salvador was deflated using the monthly import price index for BEA end use excluding fuels from the US Bureau of Labor Statistics (BLS). The series for Paraguay was calculated using data on export volumes for the country's main products as reported by the Central Bank and aggregated according to the export structure of 2010. For Mexico, the export values series was deflated using the import price index published by the BLS. Venezuela's export volumes were calculated using data from OPEC on Merey-type oil prices. The national series were geometrically aggregated based on countries' shares in total exports valued in US dollars in 2015. For imports, the price and volume indices published by the official sources in the list above were used, except for Venezuela.

Annual Series

The price indices are Laspeyres estimates for imports and exports: The methodologies used to calculate these indices are explained in detail in Giordano et al. (2023). The methodologies were adapted based on the quality and availability of disaggregated data, as described below.

Methodology 1: South American Trade Flows and Central American Imports

The first methodology draws on the primary microdata available from the INTEGRA information system, which was used to estimate import and export deflators for South American countries and Central American imports. For the exports and imports of Argentina, Bolivia, Brazil, Colombia, Ecuador, El Salvador, Paraguay, Peru, and Uruguay and the imports of Costa Rica and Guatemala, Laspeyres price indices were calculated at the HS 6-digit subheading level, taking 2015 as the base year. These calculations were based on data for current values and physical volumes reported to INTEGRA by national sources as of September 2024 and on COMTRADE data for imports from Venezuela, which were obtained based on the value of exports to Venezuela reported by other countries. Exceptionally, the Central Bank of Chile's price index was used in this edition for Chile due to inconsistencies in volume records.

Methodology 2: Exports from Central American Countries

The second methodology used deflators developed by the BLS, which were applied to Central American exports.

This group includes Costa Rica and Guatemala. Issues with the data—particularly the microdata on physical volumes of manufactured goods—made it advisable to use estimates at constant prices at the HS chapter (2-digit) level, using BLS price indices for US imports. The disaggregation includes 31 chapters of the HS 2, 3, 7, 8, 9, 22, 27, 28, 29, 30, 38, 39, 40, 42, 48, 62, 63, 64, 72, 73, 74, 76, 82, 83, 84, 85, 87, 90, 94, 95, and 96. These calculations were based on data for current values and physical volumes reported to INTEGRA by national sources through September 2024.

For Mexico, the export values series was deflated using the All Commodities from Mexico import price index published by the BLS.

Methodology 3: Venezuelan Exports

Price indices were estimated using OPEC data on Merey crude oil, while volume indices were based on primary and secondary OPEC data on production volumes.

Additional Notes

At the time of publication, complete data was not available for Caribbean countries, so the subregion was excluded from the calculation.

The aggregate indicators for the region and groups of countries presented in Figure 3 (Chapter 1) and Figures 9 and 10 (Chapter 2) were obtained from weighted

averages of the price and volume indices for each country's trade flows. The relative values of the exports or imports of the countries in each group each year were used as weights.

Data for the last two years is typically subject to revision by the respective sources and does not necessarily coincide with the figures that are subsequently updated and published by these sources. These estimates should thus be considered preliminary.

Methodological Annex 3

Statistics on Goods and Services Exports

The figures for 2020 to 2024 in Tables 1, 2, and 3 (Chapter 2) are preliminary and are subject to changes by national statistical offices.

Tables 1 and 2

Goods exports are expressed in free-on-board (FOB) values and goods imports are expressed in values that include cost, insurance, and freight (CIF). For Venezuela, exports were estimated based on price and volume data reported by OPEC (see Methodological Annex 2), and imports were estimated based on IMF mirror data (exports to Venezuela recorded by trade partners). For Peru, shipped exports published by SUNAT were used. The data for Costa Rica, the Dominican Republic, El Salvador, Guatemala, Honduras, and Nicaragua include STRs. The data for Panama refers only to exports and imports from the NCT. At the time of publication, data for the Caribbean countries was only available for the first half of 2024 for Barbados, Belize, Guyana, and Suriname, for the first quarter for the Bahamas and Trinidad and Tobago, and through April 2024 for Jamaica.

Table 3

Service exports are defined as per the sixth edition of the IMF Balance of Payments Manual. The data for Mexico is from the Bank of Mexico. The data for Bolivia, Guatemala, Nicaragua, Suriname, and Trinidad and Tobago are exports of commercial services reported by the IMF. The data for the Bahamas, Barbados, Guyana, Haiti, and Venezuela are from the WTO. The 2024 rate for Jamaica was estimated based on the export values of total services published by the IMF and the Central Bank of Jamaica. The value of service exports for the first quarter of 2024 was estimated excluding some countries for which no data was available at the time of publication.

Chapter 4: Definition of Knowledge-Based Services (KBSs)

KBSs include business, professional, technical, IT, and creative services that make intensive use of advanced technologies and/or skilled labor to leverage technological innovation. They include charges for the use of intellectual property; personal, cultural, and recreational services; telecommunications, computer, and information services; and other business services.

Methodological Annex 4

Data Treatment in the Analysis of Intraregional Trade

Country Groupings by Integration Groups and Blocs

Pacific Alliance (PA): Colombia, Chile, Mexico, and Peru.

Andean Community (AC): Bolivia, Colombia, Ecuador, and Peru. Colombia and Peru, which are members of both the PA and the AC, are included in the estimates for both blocs. However, they are included only once in the totals for LA or LAC to avoid double counting.

Central America and the Dominican Republic (CADR): Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Nicaragua, and Panama. Dominican Republic is included because it belongs to the Central American Integration System (SICA) and has trade agreements with the other members of the group. Belize is not included because although it belongs to SICA, the only Central American countries with which it has trade agreements are Guatemala and Costa Rica.

Caribbean Community (CARICOM): Antigua and Barbuda, Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Haiti, Jamaica, Monserrat, Saint Lucia, Saint Kitts and Nevis, Saint Vincent and the Grenadines, Suriname, and Trinidad and Tobago.

Southern Common Market (MERCOSUR): Argentina, Brazil, Paraguay, and Uruguay. The analysis does not include Bolivia, which formally joined the bloc in August 2024.

Latin America and the Caribbean (LAC): includes all the countries mentioned above and Venezuela.

Database and Estimates

The following official data sources were used: Argentina: National Institute of Statistics and Censuses; Barbados: Barbados Statistical Service and Central Bank of Barbados;

Belize: Statistical Institute of Belize; Bolivia: National Institute of Statistics; Brazil: Ministry of Development, Industry, and Foreign Trade; Chile: Central Bank of Chile; China: National Bureau of Statistics; Colombia: National Administrative Department of Statistics; Costa Rica: Central Bank of Costa Rica and PROCOMER; Dominican Republic: Customs Authority; Ecuador: Central Bank of Ecuador; El Salvador: Central Reserve Bank of El Salvador; European Union: Eurostat; Guatemala: Bank of Guatemala; Guyana: Bureau of Statistics; Honduras: Central Bank of Honduras; Jamaica: Statistical Institute of Jamaica; Mexico: Bank of Mexico; Nicaragua: Central Bank of Nicaragua and Ministry of Development, Industry, and Commerce; Panama: National Institute of Statistics and Censuses; Paraguay: Central Bank of Paraguay; Peru: Central Reserve Bank of Peru and National Customs and Tax Administration; Suriname: Suriname: Central Bank of Suriname; United States: US International Trade Commission; Uruguay: Central Bank of Uruguay; Venezuela: OPEC, IMF, and Central Bank of Venezuela.

Methodological Annex 5

Update of the Economic Integration Indicator

The aggregate integration indicator comprises four dimensions: trade, production, physical infrastructure, and institutions. Each dimension is made up of indicators that measure different aspects of integration by country on an annual basis. Giordano et al. (2021) provide details of the methodology and databases used for the calculations. The modifications to this calculation method for this edition are explained below.

For physical infrastructure, the calculation was limited to a simple average of two indicators: the ratio between the average score for the maritime transport connectivity index and an index tracking infrastructure quality and coverage. The trade cost indicator was excluded because there were no 2023 updates for the ESCAP-World Bank Trade Cost Database. The connectivity index is based on the UNCTAD Liner Shipping Connectivity Index, consulted in August 2024. Unlike the index used by Giordano et al. (2021), it does not include bilateral records. The second indicator is based on the infrastructure factor from the IMD World Competitiveness Center's World Competitiveness Ranking. This replaced the infrastructure pillar from the World Economic Forum's Global Competitiveness Report, which was used in earlier editions of this report but has not been updated. While the former encompasses various dimensions—from basic to technological and scientific infrastructure, as well as factors relating to healthcare, the environment, and education—all these factors influence countries' international integration. As it is evident that efficient transportation infrastructure enables countries to better connect with international markets, thus facilitating trade in goods and services, domestic infrastructure also needs to be taken into account. When deciding where to establish operations, foreign investors often consider the quality of infrastructure (such as transportation, energy, and communications) as this allows countries to integrate into global value chains, making it easier for them to align production processes with those of other economies. Moreover, better access to basic services, education, and health care improves the population's quality of life and creates an environment that is conducive to developing human capital, which is essential for competing in international markets.

Tariff costs were excluded from the institutional dimension because there was no 2023 update to the ESCAP-World Bank Trade Cost Database.

Methodological Annex 6

Empirical Analysis of Knowledge-Based Services Exports

The database is structured as a panel for 76 countries and covers 2012 to 2021. The proposed model was estimated using fixed effects, using the within transformation. Following Wooldridge (2009), the starting point is generally the following panel data model:

$$Y_{it} = \beta_0 + \beta_1 x_{it1} + \beta_2 x_{it2} \ldots\ldots . + \beta_k x_{itk} + v_i + \varepsilon_{it}$$

where v_i represents the unobserved time-invariant effect specific to each unit and ε_{it} is the idiosyncratic error with the usual properties ($E(\varepsilon_{it}) = 0$: homoscedastic, not autocorrelated, uncorrelated with X, uncorrelated with v_i).

The within-group or fixed-effects specification is expressed as:

$$(Y_{it} - \bar{Y}_i) = \beta_1 (x_{it1} - \bar{x}_{i1}) + \cdots \ldots\ldots . + \beta_k (x_{itk} - \bar{x}_{ik}) + (\varepsilon_{it} - \bar{\varepsilon}_i)$$

The choice of a fixed-effects model over pooled and random-effects specifications is based on the application of the Breusch-Pagan LM test and the Hausman test. The Breusch-Pagan LM test is used to determine whether a random-effects model is necessary over a pooled specification. In this context, the test provided evidence in favor of a random-effects specification that accounts for unobserved individual heterogeneity, unlike the pooled model. However, after applying the Hausman test, these heterogeneities were addressed using the fixed-effects specification. The Hausman test examines whether the differences between the estimators for the fixed- and random-effects models are not systematic (in which case, it would be preferable to use the random-effects model), that is, ifi $Cov\ (v_t, x_{it}) = 0$ (null hypothesis). In this study, the null hypothesis was rejected, leading to the conclusion that fixed effects was a more appropriate specification than random effects, as it remains consistent in comparison with the latter.

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