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ALIDE GENERAL ASSEMBLY

POTENTIAL AND OPPORTUNITIES FOR LATIN AMERICA AND THE CARIBBEAN IN THE CURRENT SCENARIO AND THE SUPPORT OF DEVELOPMENT BANKING



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INTRODUCTION

The new post-pandemic global context is characterized by strong inflationary and recessionary pressures originated by the effect of the large amounts of liquidity that were entered into the markets, as part of the anti-COVID-19 measures. The situation has worsened due to logistical and geopolitical factors that strongly restricted the supply of goods and services, especially during 2022.

At the global level, countries immersed in the dilemma of buttressing economic growth or mitigating inflation have opted for the alternative of sacrificing economic performance to try to curb inflation. These measures come at a stage in which the countries of Latin America and the Caribbean are still facing the aftermath of COVID-19. This difficult scenario is the first great challenge facing development finance institutions. To do this, they will have to address short-term demands and mitigate the economic cycle of deceleration.

On the other hand, the international economy faces more structural problems, such as the growing food and energy insecurity in several countries, resulting from the increase in fuel and food prices in the short term; the foreseeable increase in demand and in the age of the population in the coming years; and far-reaching geopolitical tensions, which indicate greater social conflicts.

As a result of all that, some strategic sectors –agriculture, pharmaceuticals and healthcare industry, semiconductors, fuel and clean energy– emerge with greater force. At the same time, the close linkage of national public policies with international agendas and agreements, such as the Paris Agreement, the Sustainable Development Goals (SDGs), global energy and food security, and the environment, has deepened. This, as indicated by various analyses at the global level, is shaping the beginning of a new era in which government support to strengthen the competitiveness of industries, for reasons of business, national security, public health and the environment, will be more necessary and frequent than in the past.

In this new scenario, Latin America and the Caribbean has before it several opportunities to position itself in the foreign trade scenario, due to its privileged position as a source of raw materials and essential food products. In addition, it is located in an area of geographical influence, with a commercial relationship concentrated in the Asian region. But today the countries of the region have the opportunity to refresh and strengthen said relations with greater closeness to Europe and North America, in order to attract investment, technology and regional provider/supplier companies.

Divided into four chapters, this document analyzes this new post-pandemic scenario. The first chapter describes the global economic landscape, the gaps and trends that are reshaping the environment, and the opportunities arising from this process. The second chapter analyzes the situation in Latin America and the Caribbean in comparison with other regions, in terms of physical infrastructure, especially in the areas of transport and digital connectivity. For its part, the third chapter describes international trade relations and the region's opportunities to attract investment and strengthen trade flows. And the fourth chapter addresses the response of the Development Bank of the region in the financing of exports, as well as support for the development of productive infrastructure.

CHAPTER I

GLOBAL AND REGIONAL ECONOMIC PERFORMANCE: RISKS AND AREAS OF OPPORTUNITY

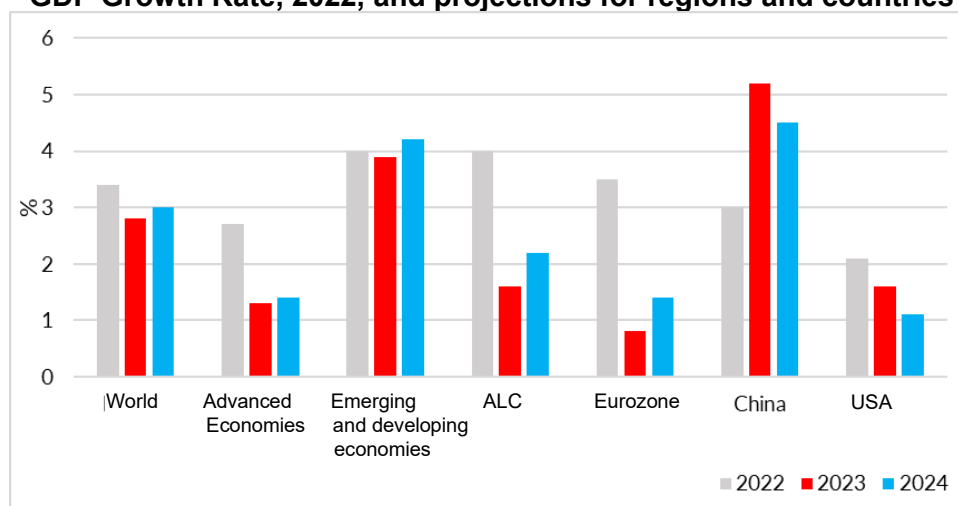
Concerns about the global economic deterioration persist, while policies of raising interest rates to contain high inflation, which seems to have slowed, although remaining at relatively high levels, continue. At the same time, alerts were generated about potential problems in the banking sector, which raised fears of a deterioration in May, especially in the US and Europe. In this context, Latin America and the Caribbean (LAC) is expected to grow weakly by just 1.2% in 2023. However, despite the existing challenges, investment opportunities arise in the region due to its natural capital and its relationship with the main markets.

1.1. Global perspectives

Upon the convergence of the environmental, economic and health crisis, conflicts of a geopolitical nature occurred and the onset of the deceleration in the global economy, aside from a sharp increase in inflation rates, as a result of the monetary and fiscal stimuli used to confront the COVID-19 pandemic in 2020 and 2021, as well as the supply shocks due to the restructuring of supply chains and the increase in the price of energy and food. All this has translated, on the one hand, into substantive changes in different areas at the global level and, on the other, into the weakening of the economic recovery.

In the face of this landscape, much more contractionary monetary policies were chosen, with the consequent negative effect on credit, growth and employment. The International Monetary Fund (IMF) forecasts real GDP growth of 2.8% in 2023, after the 3.4% growth in 2022. Meanwhile, for LAC, it estimates a weak growth, just of 1.8%, less than half of the 3.9% achieved in 2022. However, serious doubts and fears persist that the deterioration of the world economy may be greater.

Chart No. 1: Forecasts of world economic activity
GDP Growth Rate, 2022, and projections for regions and countries



Source: International Monetary Fund (IMF)

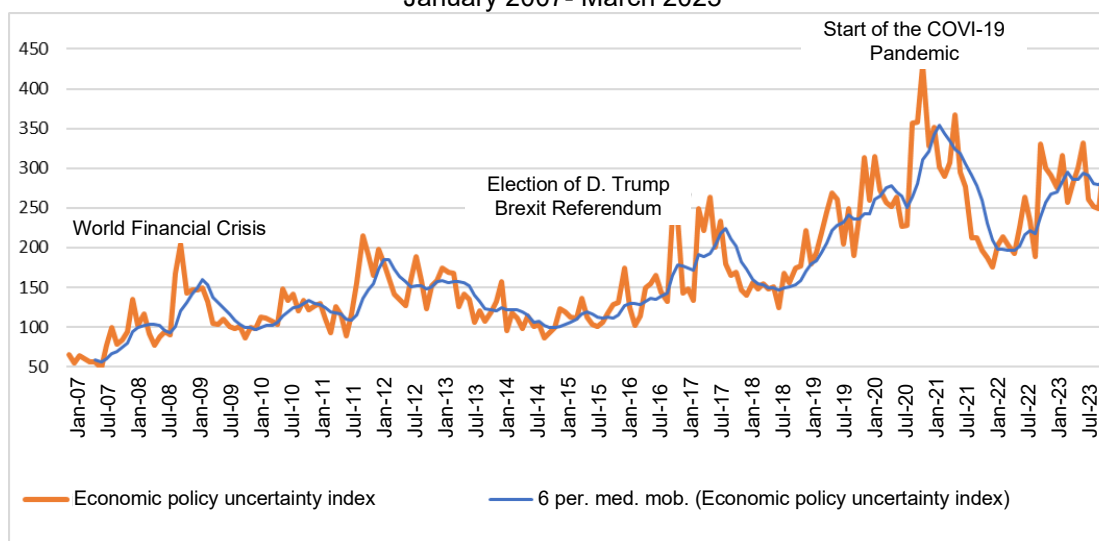
In a longer-term projection, the IMF expects global economic growth to be around 3% per year toward 2028, which represents one of the lowest projections since 1990. The World Bank also forecasts a similar trend, with a growth of 2% in 2023 (Reuters, 2023), and a potential growth of 2.2% per year until 2030, a much lower figure than that recorded in the 2000 decade, which was 3.5%.

This weak growth outlook reflects the policy measures implemented to reduce inflation, the effects of geopolitical events, the deterioration of financial conditions, and the increasing geoeconomic fragmentation. Moreover, alerts have been generated in the US banking sector and in some important financial institutions in Europe, who have warned about the risks in global financial markets. This has led to greater attention being paid to this sector due to the implications that it has on the functioning of the economy at the global level.

Despite these circumstances, the central banks have maintained their intention to tighten monetary policy and continue with interest rate increases in order to contain the persistent inflation that remains at high levels.

Chart No. 22: Uncertainty Index of the global economic policy*

January 2007- March 2023



Source: Policy Uncertainty

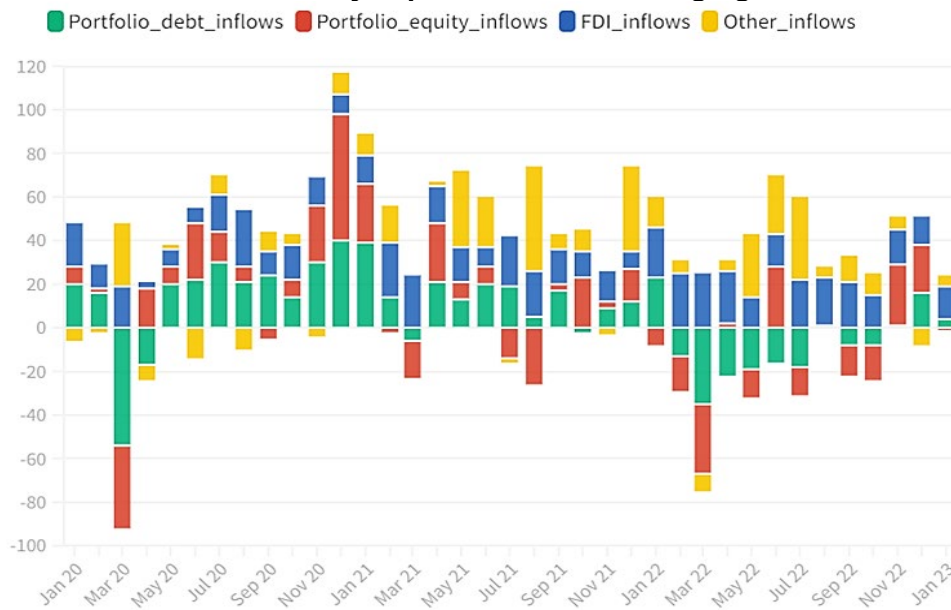
Crafted by ALIDE

(*) The average value of the GEPU index is 60% higher from July 2011 to August 2016 than in the previous fourteen and a half years, and 22% higher than in 2008-2009.

Recent developments, especially in the banking sector, have brought with them a mix of good and bad news for monetary authorities in developing economies. On the one hand, there has been a further hardening of financial conditions, adding to a weak economic outlook characterized by high uncertainty and growing risks (Chart No. 1). On the other hand, it is possible that the cycle of tightening of the monetary policy in major developed economies is coming to an end due to the difficulties that the banking sector has faced. This could imply that central banks may be pressured to be more cautious about rate hikes. A change in monetary policy in the US and other developed economies would further reduce the pressure on the developing country central banks for tightening their monetary policy stances (UN, 2023).

With the constant increase of interest rates at the international level, developing economies have experienced a period of financial volatility and capital flows. In the first half of 2022, portfolio capital flows into emerging economies declined considerably, although from 2023 on they began to recover, maintaining a significant volatility (Chart No. 2).

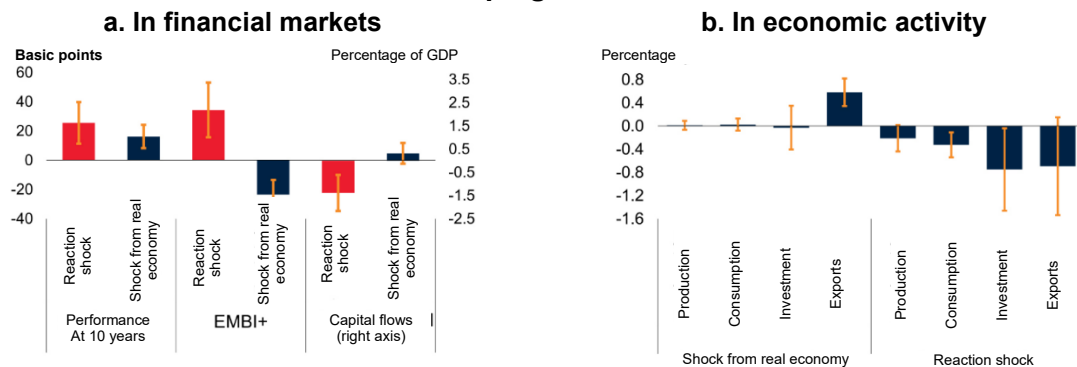
Chart No. 3: Monthly capital inflows in emerging economies



Source: Organization for Economic Co-operation and Development (OECD)

Moreover, the notable rise of interest rates in the US poses a significant threat to emerging markets and developing economies (EMDE). This is due to the fact that said increase discourages investment flows, widens sovereign risk spreads and increases the yield on bonds issued by the EMDE in local currency.

Chart No. 4: Impact of shocks related to interest rates in the US in emerging and developing economies



Source: World Bank (2023)

These increases also entail the depreciation of currencies and the drop in share prices. This impact known as a reaction shock differs from shocks in the real economy and undermines investor confidence¹ (Chart No. 4a). Furthermore, these reaction shocks generate great concern due to their association with a significant reduction in investment and private consumption in EMDE (Chart No. 4b).

¹ Arteta et al (2022).

However, beyond financial instability, the aftermath of the pandemic and geopolitical tensions in Europe have affected the long-term growth potential of the global economy. According to World Bank projections, the world is facing low growth rates, which could be called a "lost decade." The World Bank points out that almost all of the economic forces that drove progress and prosperity over the past three decades are fading. Consequently, it is expected that between 2022 and 2030 the average potential growth of world GDP will be reduced by one third compared to the rate observed in the first decade of this century, standing at around 2.2% per year. In the case of developing economies, the decrease will also be sharp: from 6% per year between 2000 and 2010 to 4% per year for the rest of this decade.

The World Bank (2023) considers that this scenario obligates countries to formulate policies aimed at promoting strong, sustainable and inclusive growth. Therefore, countries could implement policies that contribute to long-term growth, such as aligning monetary, fiscal and financial frameworks, increasing investment in strategic areas such as transport, energy, sustainable agriculture and manufacturing, reducing trade costs associated with transport, logistics and regulations, increasing labor force participation, especially by women, and betting on services that improve productivity.

Challenges and risks

The current inflationary problems are the result, in part, of the monetary and fiscal policies implemented during the crisis caused by the COVID-19 pandemic. They are also due to interruptions in supply chains and the impact of geopolitical issues on the prices of raw materials, such as fuel and food. However, it is considered that there are other factors that could have an even greater impact, and their evolution will condition not only the course of inflation, but also on economic growth in the long term.

Table No. 1: Main challenges, risks and prospects for developed, emerging and developing economies

	Developed Economies	EMDE
Demographics		
In the near future, it is expected that an ever-smaller portion of the population will have to "support" an ever-larger portion of it. This will have policy implications in terms of economic growth, fiscal sustainability, health and long-term care, well-being and social cohesion.	A sharp reduction in the working-age population is projected, while the population aged 65 and over will increase over several decades. By 2050, it is estimated that there will be fewer than two people of working age (15-64 years) for every person aged 65 and over, which is half the proportion recorded in 2001.	In LAC, the ratio is expected to go from more than eight people of working age for every person aged 65 and over by 2020, to more than two people of working age by 2050. For its part, China will experience a similar transition, from having five working-age people supporting adults who have left active production in 2021, to having a little more than one person in the same situation by 2050 (NBSC, 2022).
Decarbonization		
The transition to a low-carbon economy is a crucial aspect that should not be overlooked. Much of today's inflationary problem stems from the world's reliance on fossil fuels for energy production.	Ambitious targets have been set in order to reduce greenhouse effect gases (GHG) emissions. By 2030, the United States has set a goal of reducing its net GHG emissions by 50% to 52% compared to 2005 levels across its economy. For its part, the European Union aims to achieve climate neutrality by 2050 and is currently revising its objectives for 2030.	China, with its long-term strategic interests, has set the ambition to achieve carbon neutrality by 2060. Significant progress has already been observed in this area. In 2021, China accounted for about one-third of wind and solar power installations globally. This shows that China's domestic market has a mature supply chain and has become internationally competitive. In fact, China exports wind turbines to the Southeast Asian and European markets.

Deglobalization		
<p>The purpose of offshoring and globalization that have dominated recent decades was to reduce labor costs and allow economies of scale to make processes more efficient and less expensive. However, current priorities are changing and focus on ensuring the security and stability of supplies instead of just seeking efficiency and lower costs.</p>	<p>A Barclays Bank study has found evidence that fewer merger and acquisition deals have been recently entered into compared to historical levels. Governments are also undertaking major reassessments of the origin of essential products and are looking for ways to stimulate private sector investments in local manufacturing. Their priorities are health and defense, and measures are being taken to ensure the production of "essential" products and raw materials in the event of emergencies. A good example is the Chips and Sciences Act in the USA, which offers US\$70 billion in support to the local semiconductor industry and up to US\$200 billion for R+D. This, of course, is due to tensions between China and Taiwan, which control more than 50% of the semiconductor market.</p>	<p>The energy sector is another key aspect to take into account, both in terms of globalization and deglobalization. The common incentive to address climate change has been an important source of cooperation in recent years, but the transition to a green economy also requires a local approach. Concerns about energy security and volatile fossil fuel prices have increased interest in renewable energies at the domestic level. It is important to consider solutions at the local and regional level, as the boom of renewable energies will change the trade flows of fossil fuels, and the green transition will require a sufficient availability of minerals to build the necessary infrastructure.</p>
Debt		
<p>Over the past five decades, global debt has increased significantly, going from 46.7% of global GDP to approximately 170% in 2020. During this period, both sovereign and private debt have experienced a sharp increase, twofold and sixfold, respectively. This increase in debt has led to a greater likelihood of a debt crisis, given that a great part of the world has been living beyond its means.</p>	<p>Debt-to-GDP ratios were higher in 2019 compared to 2008 by almost 90% of developed economies, such as the US and Japan, and soared even further in 2020. In the coming decades, the economic costs of population ageing will challenge the public finances of G20 economies, and they will be forced to make difficult choices, such as reducing benefits or raising taxes.</p>	<p>As for emerging markets, average debt ratios in 2019 were comparable to levels seen during the debt crises of the eighties and nineties. According to an IMF assessment in 2019, approximately two-fifths of developing countries were at high risk of facing debt difficulties or were already experiencing them. This indicates that many developing countries are dealing with a worrisome debt situation.</p>
Advanced technologies and digitalization		
<p>Over the next two decades, technological advances are expected to increase in both pace and impact, transforming and improving human experiences and capabilities. These advances will also offer the opportunity to address challenges such as population ageing, climate change and low productivity growth. However, they will also generate tensions and disruptions within society, industries and states alike.</p>	<p>The impacts of automation are changing the demand for labor, capital and technology in traditional industries. It is estimated that 23% of jobs will be different in 2027, which implies the creation of 69 million jobs and, at the same time, the disappearance of 83 million jobs. In terms of investment in R+D, countries such as the USA and Germany allocate around 3% of their GDP to this purpose. China and the US are the major players in the digital realm, with 90% of the top 70 digital platforms*, 78% of artificial intelligence patents, 75% of blockchain technology patents, 50% of global spending on the Internet of Things (IoT), and 75% of the cloud computing market.</p>	<p>Though digital technologies have the potential to promote greater inclusion and connectivity, they can also increase inequality and divisions, both within countries, due to connectivity gaps, as among them. For the digital transformation to be a reality in emerging countries, significant gaps need to be addressed. For example, in Latin America and the Caribbean (LAC), almost 50% of households do not have access to the web, while in sub-Saharan Africa this figure is about 1/3, compared to 9% in the US and 13% in the EU. Furthermore, China invests around 4% of its GDP in R+D, while in LAC this figure is 0.65%.</p>

Geopolitical tensions		
Rising geopolitical tensions, shifting alliances and changes in the flow of foreign investment threaten to gradually modify global trade patterns.	Between 2017 and 2022, the US has experienced a 26% increase in imports by container from Asia. However, China and Singapore, two of the region's leading economies, recorded a much more modest growth of 7% in their exports by container, compared to the impressive 156% growth recorded by Vietnam. This trend is also reflected in the market share in terms of imports by container coming from Asia. In 2022, 56% of all imports under this modality came from China, which represents a decrease of 10% compared to 2017. On the other hand, Vietnam has almost doubled its share in the same period, going from 6% to 11%.	The Russia effect: In the first quarter of 2023, a reduction in exports from China to the US was recorded, which translated into US\$3,600 million less in trade. Despite this drop, China's total exports achieved an impressive 15% year-on-year growth rate in March. With its trade possibilities hampered by international sanctions, Russia increased its imports from China by US\$5,200 million annually, allowing the latter to more than make up the U.S. deficit. The IMF reports that in the second half of 2022 FDI in China fell to its lowest level in almost two decades, 73% year-on-year, to reach US\$42,500 million. Conversely, Vietnam has seen FDI grow by 61.2% year-on-year in the first three months of 2023.

Source: World Bank, Barclays Bank, ECLAC, IMF, NBSC of China, UNESCO, WEF and Xeneta.

(*) Alibaba, Apple, Amazon, Alphabet, Facebook, Microsoft and Tencent.

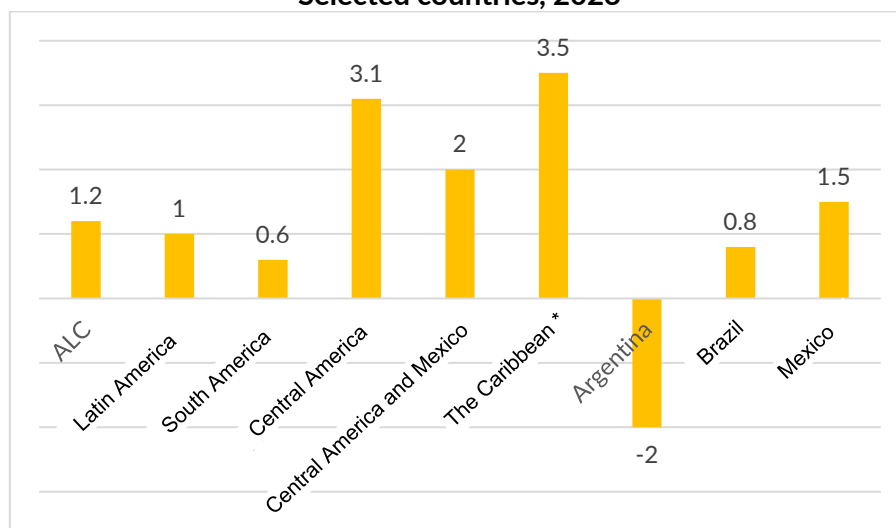
1.2. Landscape of Latin America and the Caribbean

The external scenario in LAC is complex, with a reduction in economic activity and world trade. Monetary tightening in developed economies and problems in the US banking sector have increased uncertainty and volatility in financial markets. Although inflationary pressures have eased, the strength of the US labor market could prompt the Fed to keep interest rates high for longer. According to the Economic Commission for Latin America and the Caribbean (ECLAC, 2023), growth in LAC is expected to be 1.2%, with limitations in fiscal and monetary policies. The region shows a downward trend² in inflation, and the process of interest rate increases in several LAC countries is expected to have stronger effects this year on consumption and investment. The authorities have little fiscal leeway due to high levels of public debt, so measures will be required to strengthen the collection and redistributive capacity throughout the region. As for poverty, the pandemic has worsened the situation, with an increase from 24% to 26.5% between 2019 and 2021.

² But it will remain at elevated levels compared to pre-pandemic levels.

Inflation, excluding Argentina, is expected to decrease to an average of 5% in 2023, after having reached 7.9% in 2022, according to the World Bank (2023).

Chart No. 5: Economic growth projections for the region, subregions and Selected countries, 2023



Source: ECLAC

Opportunities

In the current context, LAC has favorable conditions to generate investment opportunities. It has an extensive natural capital that includes water, forests, biodiversity and strategic minerals. It also benefits from its proximity to the US market, the world's leading economy, and its close relationship with China's economy. It also has a young workforce and a high commercial integration with the rest of the world. The World Bank highlights the fact that the implementation of long-term policies can boost investment in traditional and digital infrastructure, as well as improve human capital. These measures will make it possible to take advantage of investment and trade opportunities more effectively in the region.

Table No. 2: Areas of opportunity for Latin America and the Caribbean

	Potentiality – Sources of Opportunity
Water	
The LAC region has abundant renewable water resources per inhabitant, being the second-best positioned region in this regard. However, despite this, there are still challenges in terms of access to safe drinking water and adequate sanitation. Currently, 161 million people lack access to safe drinking water and 431 million do not have access to safe sanitation.	This represents both a necessity and an opportunity to boost investment and achieve universal coverage of these services for the entire population. It is estimated that the region only treats an average of 40.8% of the water used by households, which has a significant impact on the quality of water available in the ground.
Bioeconomy	
The bioeconomy is presented as a new productive paradigm that seeks to meet the food and energy demands of a growing world population, while reducing the negative impact on the environment and generating opportunities for sustainable economic development and job creation.	Globally, 19 strategies have been implemented to boost the bioeconomy, including national and regional strategies. Some Latin American countries, such as Costa Rica, Uruguay, Argentina, Brazil, Colombia, Ecuador, Paraguay and Mexico, have also developed programs and policies aimed at developing sectors related to the bioeconomy. In the region, commodity exports are the main component of the bioeconomy, accounting for about 55% in the period 2015-2019, up from the previous period. By comparison, globally, the commodity bioeconomy remains at around 28%.

Reconfiguring supply chains	
The 2008 financial crisis, the COVID-19 pandemic, trade tensions between the US and China and geopolitical conflicts in Europe have led to rethink the reconfiguring of supply chains. Some domestic policies, such as the "Made In-China 2025" program, the "Make in India" initiative, and the U.S. Innovation and Competition Act of 2021, are aimed at relocating production in domestic sources.	Mexico is considered a natural candidate for the relocation of companies that supply goods to the U.S. market due to its geographic proximity and the U.S.-Mexico-Canada Agreement (USMCA), which reduces barriers to trade and facilitates the transit of products between the two countries. According to US News' global ranking of countries with the lowest manufacturing costs in 2022, Mexico ranks 14th, while India and China lead the ranking. In addition, countries such as Colombia, Panama and Costa Rica can match the low costs and high human capital of Southeast Asia. According to IDB estimates, in 2022 the offshoring process could generate additional exports of goods and services worth US\$78 billion annually in LAC.
Energy transition and renewable energies	
In LAC, there are convergences of technological, economic, social and political factors taking place, which position it as a world reference in the fair energy transition. The RELAC initiative, created in 2019 during the United Nations Climate Action Summit, aims to achieve at least a 70% participation of renewable energies in the LAC electricity matrix by 2030.	According to the World Bank, countries such as Chile, Peru, Mexico and Argentina have excellent conditions for photovoltaic energy*, but the rest of the region also has potential in this field**. As for wind energy, Colombia and Chile stand out. This has led the region to position itself on the world map of investment projects in renewable energies. Since 2010, LAC has become the second most important destination for foreign direct investment (FDI) announcements in the renewable energy sector. Moreover, it has concentrated 17% of the global number of projects in this area during the last decade, reaching its highest level of participation, 33%, in the first four-month period of 2021.
Energy transition and green hydrogen	
The green hydrogen industry is experiencing great development globally. In 2019, only 3 countries had national strategies for green hydrogen, but in 2022 there are 17 countries that have announced such strategies and 20 that are developing them. It is estimated that by the year 2050 global production of green hydrogen will have multiplied by more than six times and will account for approximately 18% of final energy demand.	Each LAC country has competitive advantages for different uses of green hydrogen, and collaboration between countries in the region can generate synergies, economies of scale, and subregional and regional electricity integration. For example, Brazil, with its ample use of bioenergy, could use green or blue hydrogen to produce synthetic fuels. Chile can incorporate green hydrogen into heavy transport, mining operation and other sectors. Costa Rica, Paraguay and Uruguay, which have achieved almost complete decarbonization of their electricity systems, are focusing on the use of green hydrogen in transport and electromobility as part of their next stage of transition to clean energy. Panama, due to its strategic location and its relevance in international shipping, could become a regional hub for the distribution and trade of green hydrogen.
Strategic minerals: copper, lithium, zinc and rare earths	
The transition to clean energy depends on the use of critical metals and minerals, such as copper, zinc, lithium and rare earths, which are fundamental for battery production, electrification, electric mobility and digitalization.	LAC plays a crucial role in the growing supply of these minerals. The triangle formed by the salt flats of Argentina, Bolivia and Chile houses 52% of the world's reserves of lithium, an essential component in batteries. As for copper, Chile, Peru, Mexico, Argentina and Brazil have 38% of the world's reserves, which makes them important players in the production of this metal. In the case of zinc, Bolivia, Mexico and Peru have 17% of the world's reserves, which places them in a strategic position in the production of this mineral.
Electromobility	
Electric mobility is poised as the future of urban mobility, as it contributes to mitigating the effects of climate change by avoiding greenhouse-effect gas (GHG) emissions. The EU has set a deadline: by 2035 new cars with internal combustion engines will stop being sold.	The adoption of stricter environmental standards and regulations to reduce GHG emissions is an important step in promoting electromobility. In Latin America and the Caribbean (LAC), some countries such as Chile, Colombia and Costa Rica have set targets for the electrification of public transport vehicles, showing their commitment to this transition towards more sustainable and cleaner mobility.

Food supply	
By the year 2050, demographic growth and dietary changes will generate greater demand for food globally. This presents an opportunity for LAC to become one of the leading global food suppliers, incorporating criteria of sustainability, resilience and inclusion.	LAC's natural wealth supports its potential as a food supplier. The region has a large amount of forest biomass, covering 50% of its land area and almost 25% of the world's forests. Furthermore, it possesses more than 30% of the world's freshwater and 40% of renewable aquatic resources. Despite having only 9% of the world's population and 4% of the rural population, LAC has 16% of the agricultural land and 33% of the area suitable for agriculture. Moreover, the region produces 24% of food and 28% of agroexports, globally.
Pharmaceutical industry: generic drugs	
The COVID-19 pandemic has revealed an export niche market for LAC due to problems arising from border closures in China, the main producer of active ingredients used in the manufacture of generic medicines. India stands out as one of the main exporters of this type of medicines, accounting for 22% of the total.	In LAC, generic drugs are the most widely consumed, accounting for nearly two-thirds of total exports and half of pharmaceutical imports in the region. Most of these drugs are generic and mainly supply the intraregional market. With existing capacities in generic production in LAC, the number of small-molecule and brand drugs whose patents are close to expiring is expected to double in the next five-year period.
Medical instruments and equipment	
ALC has a promising future as a global supplier of medical instruments and equipment. Its share of world exports in this sector has increased from 6.6% in 2014 to 7.8% in 2018, exceeding its share of exports of other goods.	Countries such as Costa Rica, Mexico and the Dominican Republic have become manufacturing hubs for transnational companies that export medical instruments and equipment, mainly to the US and Canadian markets. In addition, Mexico has positioned itself as the second external supplier of these products to China, being surpassed only by the US.

Source: ECLAC, Mogollón and Dueñas (2022), Fontagro, UN-Habitat/WHO.

In summary, the current context presents a series of converging crises, together with the threat of climate change and a rapid process of transformation. However, it also opens up opportunities for Latin America and the Caribbean to develop new productive capacities. These opportunities include attracting investors to relocate industries, exporting medicines, medical instruments and appliances, provide food and exploit strategic minerals. Also, we seek to take advantage of the energy transition and continue developing renewable energy projects in the region.

CHAPTER II

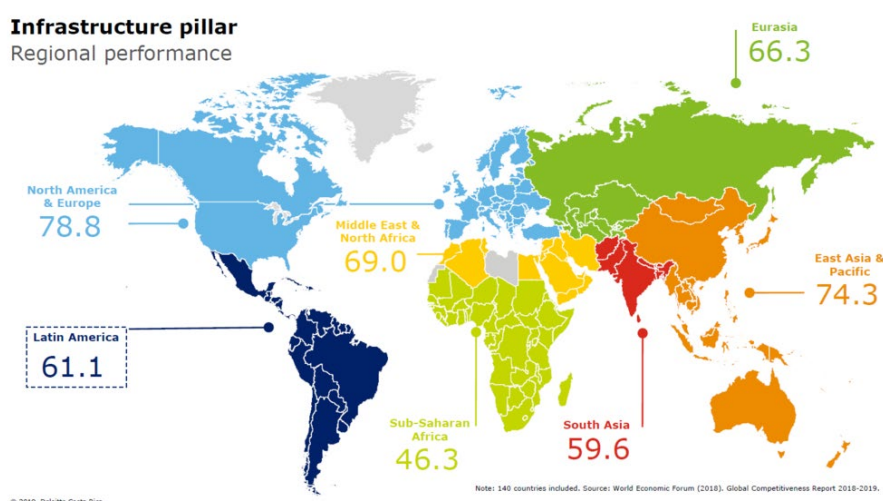
PRODUCTIVE INFRASTRUCTURE FOR COMPETITIVENESS

Compared to other regions, LAC lags behind in terms of physical infrastructure, specifically in the areas of transport and digital connectivity. In this scenario, investment in infrastructure plays a crucial role in improving the international competitiveness of countries, and because of how important its contribution could be to advance in the achievement of the Sustainable Development Goals (SDGs).

2.1. Productive infrastructure to facilitate trade

An adequate infrastructure is crucial to improve connectivity, increase efficiency, and reduce transportation and logistics costs. LAC ranks fifth out of seven regions evaluated for the overall state of public infrastructure, with a score of 61.1 out of 100.³ This puts the region at a disadvantage compared to East Asia and the Pacific or the Middle East and North Africa, which score higher at 74.3 and 69, respectively.

Chart No. 6: Infrastructure, regional performance



Source: Deloitte Central America and Villalobos (2019)

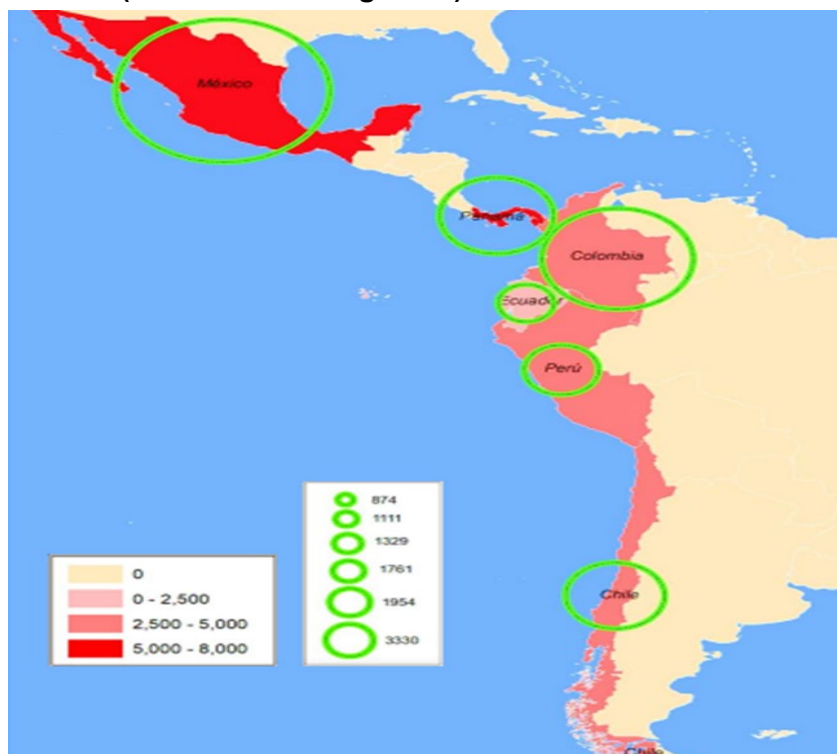
Generally speaking, the infrastructure of basic services such as water and electricity in LAC shows a good performance compared to other developing regions. However, there are still challenges in terms of quality and waste. Only a small percentage of households lack access to water (6%) and electricity (4%). The biggest challenge is in rural areas, where more than 50% of the population does not have access to electricity, especially in countries such as Haiti, Guatemala and Peru.

On the other hand, transport infrastructure is one of LAC's main weaknesses. The region lacks integrated transport networks and has a low density of paved roads. More than 60% of roads in the region are unpaved, in contrast to the emerging economies of Asia (46%) and Europe (17%) (The Economist, 2018). Road coverage in LAC is significantly lower than in OECD countries, with only 0.5 km of roads per km² of territory, compared to the average of 1.3 km in other countries. LAC also has fewer road kilometers per million inhabitants (2,000 km) compared to Europe and the US, which have more than 4,500 km and 8,500 km, respectively (Roa, 2022).

³ This result includes transport infrastructure (roads, ports, airports, railways) and energy, water and telecommunications, as well.

This notwithstanding, urban transport in LAC has improved thanks to significant investments made in public transport systems in the most populated cities. They now have multiple modes of public transport. For example, Colombia's Medellín metro system offers an efficient public transportation option in one of the country's most populous cities. The metro system of Santiago de Chile stands out for its extension of 140 km in six lines, with 136 stations distributed in 23 communes, and a high number of annual passengers. In Ecuador, the Quito metro, inaugurated at the end of 2022, has reduced travel time from an hour and a half from south to north of the city to just half an hour. These examples show advances in public transport infrastructure and efficiency in the region.

**Graph No. 7: Evolution of container maritime traffic
(TEU: 20-foot-long units) between 2010-2019**



Source: United Nations Conference on Trade and Development, (UNCTAD), Narrea (2022)

Airports in LAC have lagged due to a lack of investment in their expansion and modernization, despite growth in passenger demand driven by the expanding middle class. For example, in Peru, Jorge Chávez Airport is increasing its capacity from 23 to 30 million passengers by 2025, through the modernization and expansion of its terminals, with an investment of more than US\$2,000 million.

As for ports, improvements have been observed in their connectivity with maritime transport networks worldwide. The ports of Manzanillo in Panama, Cartagena in Colombia, Callao in Peru, and Manzanillo in Mexico stand out in terms of multimodal connectivity, according to UNCTAD's 2020 liner shipping connectivity index. However, the need to increase access roads by 2030 within a 50 km radius of key ports and transport hubs by 15% has been pointed out, according to the ITF (2016), in order to improve port competitiveness in the region.

**Chart No. 8: Port connectivity index. Top 10 in the LAC region
3T-2021 (2006=100)**



Source: United Nations Conference on Trade and Development (UNCTAD)

LAC faces great challenges in the functional integration of road and rail transport infrastructure, which affects its logistics competitiveness. Though roads and ports have improved over the past decade, rail has seen marginal improvements. According to ECLAC (2020), LAC has one of the lowest railway network densities (network length / surface)⁴, with around 4 km of track per thousand km² of surface, compared to the US, which has 33 km. In the region, Argentina has the largest rail network, with almost 37,000 kilometers, while Brazil, despite being the largest country in the region, has some 30,000 km of track, much of which is out of service due to lack of maintenance (BNamericas, 2021).

On the other hand, important railway projects are being carried out, such as the Mayan Train in North America, which will consist of 1,500 kilometers of railway and an investment of around US\$20 billion. The interconnection between Mexico, the U.S. and Canada, through the company CPKC, with a railway line of more than 32 thousand kilometers, will have a significant impact on freight transport and the reduction of the use of trucks on the roads.

In terms of digital infrastructure, progress has been made during the pandemic due to increased digital adoption, but there are still restrictions to achieving a full digital transformation. In LAC, there is an evident digital gap, with more than 50% of the population without fixed broadband connectivity and only 9.9% of households with high-quality fiber optics. Although 87% of the population has access to a 4G signal, its use and penetration remain low (37%), especially in rural areas, where only 4 in 10 rural inhabitants have connectivity options, compared to 7 in 10 in urban areas (Drees-Gross & Zhang, 2021).

It is important to note that, in order for LAC to access the business opportunities derived from the use of new digital technologies in areas such as security, transport, logistics, education, entertainment, manufacturing and tourism, infrastructure linked to mobile connectivity, 5G network, private networks and data centers must be improved. In the next decade, it is estimated that the universalization of broadband access in LAC will cost 0.12% of its annual GDP; the implementation of 5G technology in first- and second-tier metropolitan centers 0.17% and the achievement of OECD connectivity targets 0.62% of its annual GDP.

It is important to note that closing the digital infrastructure gap in LAC is cheaper than addressing deficiencies in the transport, energy, and other infrastructure sectors (Drees-Gross & Zhang, 2021).

⁴ The density of railway lines with respect to the surface of each geographical area oscillates from 3 to 50 km per thousand km². The highest value corresponds to the USA, EU and the lowest to Africa and Latin America.

2.2. Sustainable Infrastructure

The manner in which the new infrastructure is built will determine whether Latin America and the Caribbean meets the SDGs by 2030 and net zero emissions by 2050. This represents both a challenge and an opportunity. According to estimates by Brichetti et al. (2021), the region will require a total investment of approximately US\$2.2 trillion, equivalent to 3.1% per year of its GDP until 2030, in order to achieve the SDGs. These investments include basic infrastructure, energy, telecommunications and transport. Of the total, 59% will be allocated to investments in new infrastructure, while 41% will be allocated to investments in maintenance and replacement of assets at the end of their useful life, which is crucial to maintain services with adequate quality standards.

Table No. 3: Investment needs until 2030 in order to meet the infrastructure component of the SDGs in Latin America and the Caribbean
(In millions of US\$)

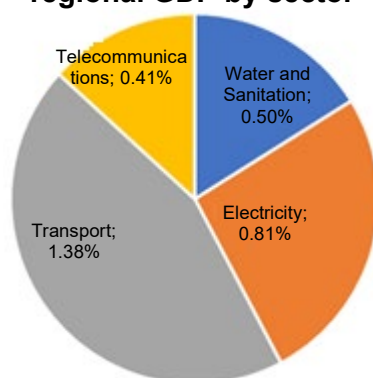
Region	New Infrastructure	Asset maintenance and replacement	Total	Annual investment per capita
Central America ¹	382,699	230,077	612,776*	243*
The Caribbean ²	10,026	9,529	19,555*	251*
Andean ³	283,252	174,714	457,965*	259*
South Cone ⁴	634,573	495,866	1,130,439	322
Total LAC	1,310,550	910,186	2,220,736	282

Source: IDB.

Notes: (1) Belize, Costa Rica, El Salvador, Guatemala, Haiti, Honduras, Nicaragua, México, Panama and the Dominican Republic; (2) Bahamas, Barbados, Guyana, Jamaica, Surinam and Trinidad and Tobago; (3) Bolivia, Colombia, Ecuador, Perú and Venezuela; and (4) Argentina, Brazil, Chile, Paraguay and Uruguay.

Most infrastructure investment in Latin America and the Caribbean is financed mainly through the public sector, but the private sector also plays an important role. Approximately 20% of infrastructure spending across the region is financed by the private sector, which represents close to 0.5% of GDP. However, it is estimated that of the 2.3% invested by the public sector, 0.65% is lost due to inefficiencies. To achieve better investment, it is necessary to improve planning for selecting the right projects and then implement them efficiently and effectively (Brichetti et al, 2021).

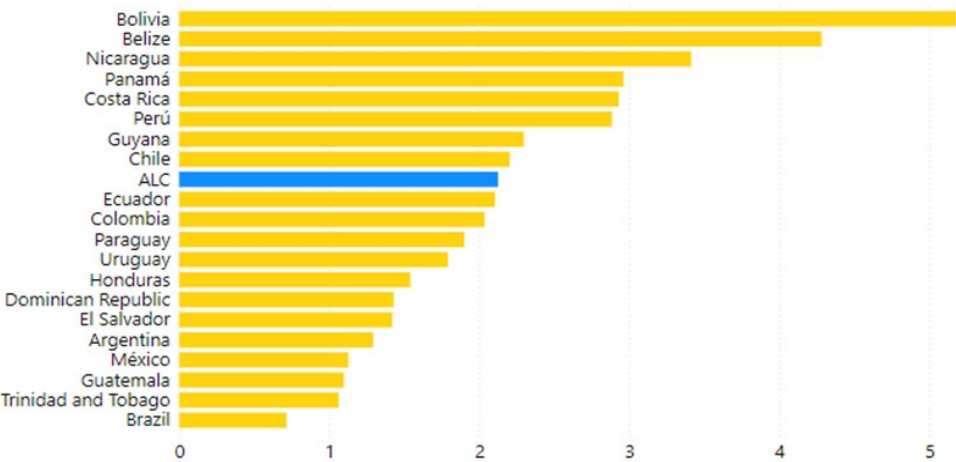
Chart No. 9: Distribution of annual investment effort as a percentage of regional GDP by sector



Source: IDB.

Infrastructure investment in most Latin American and Caribbean countries is mainly financed by the public sector, making it particularly vulnerable to the business cycle (Chart No. 10). This poses an additional challenge for governments in the region, which is fiscal weakness. In 2008, the region's average fiscal balance was -0.4% of GDP and, due to the increase in public spending related to the pandemic, the IMF Fiscal Monitor estimated deficits above 3% until 2025.

**Chart No. 10: Average public investment in infrastructure, 2008-2021
(% of GDP)**



Source: Infralatam
Crafted by ALIDE

When investing in infrastructure, it is crucial to consider not only the improvement in efficiency, but also the type of investments, especially in view of the increased likelihood of extreme weather events due to climate change. These events can have a significant impact on people's lives and on the various activities of countries. The recent pandemic has demonstrated the importance of guaranteeing that, even in situations of crisis and drastic change, the infrastructure of transport, energy, telecommunications and basic services can continue to function. Infrastructure investments can also play an important role in reducing greenhouse-effect gas emissions by promoting the four pillars of decarbonization: the use of renewable energy sources, electrification, the promotion of public and non-motorized transport, and the conservation and restoration of ecosystems (Serebrisky et al., 2020).

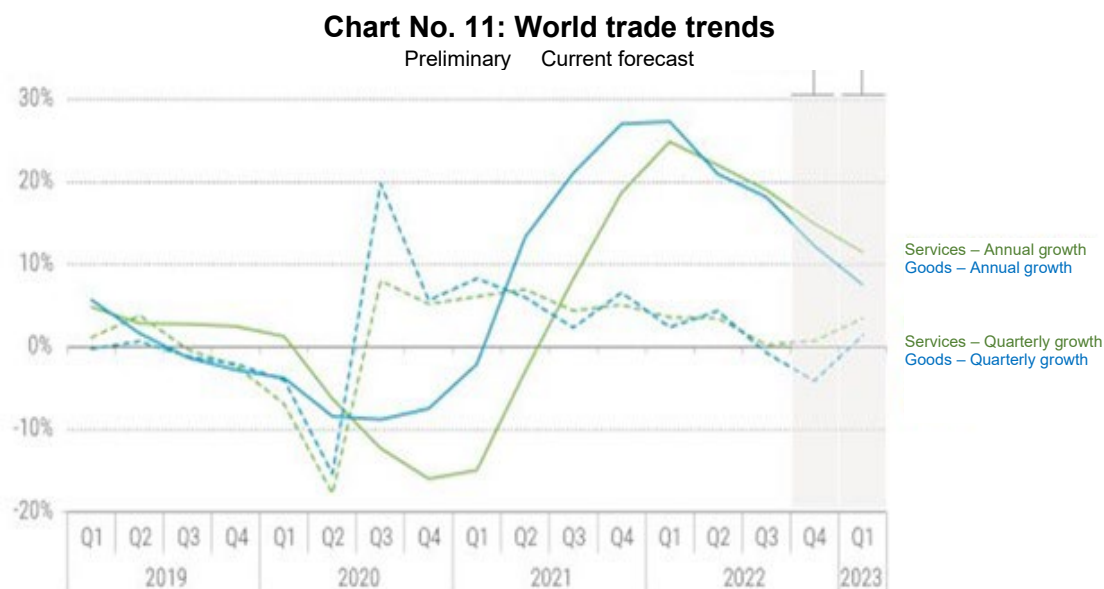
CHAPTER III

TRADE AND INVESTMENT IN AREAS OF OPPORTUNITY

In the field of international trade, as a result of geopolitical interests, a number of considerations have become evident, which are transforming business relations at a global level. Concepts such as globalization, the concentration of production in regions or countries with lower costs or easy supply, international value chains, are being transformed due to the revalorization of new trends. Among these, stand out the security of having products uninterrupted, the formation of commercial blocks with geostrategic motivations, the formation of new commercial alliances, the diversification of suppliers, the proximity of supply sources, and the relocation of production. The objectives of these changes transcend the purely economic and commercial.

3.1. World trade projects an outlook of deceleration

With the loss of momentum of the world economy, 2023 seems to anticipate a high risk of economic deceleration with implications for world trade. A recent UNCTAD report (2023) points out that after a record year in 2021, growth turned negative in the last semester of 2022 and should stagnate in the first semester of 2023. World trade in goods, worth \$25 trillion in 2022, declined by 3% in the fourth quarter (Chart No. 11). But trade in services remained almost constant, ending the year with a value of \$7 trillion. According to UNCTAD's projections for the first quarter of 2023, a 1% increase in world trade in goods in value terms is expected. On the other hand, trade in services is estimated to increase by approximately 3%, driven by growing demand for ICT services and the continued recovery of the travel and tourism sectors. However, the energy sector suffered the biggest drop in the fourth quarter of 2022, with a decline of 10%.



Source: UNCTAD (2023)

Other factors that could affect global trade are related to rising tensions between the US and China, as well as the crisis stemming from geopolitical conflicts in Eastern Europe. This also includes the intensification of U.S. controls on exports to China and investment screening, particularly in sensitive technologies, and the geopolitical risks related to Taiwan. Moreover, transatlantic ties have been under pressure to determine how best to engage with China and the green energy and industrial policy of the US.

For Europe, China is a crucial trading partner and a competitor at the same time, and for many other countries a huge market, as well as a supplier of crucial raw materials and products. In addition to being a partner, the US is a trade competitor to Europe, which has been reflected in the recent Inflation Reduction Act, under which the U.S. plans to invest US\$430,000 million in local climate and clean energy efforts. This law implies tax breaks, which can hurt foreign companies, from car manufacturers to producers of green technologies⁵.

Although the outlook may seem bleak, positive change is likely to be driven by improvements in logistics chains, a decrease in congestion and a reduction in transport tariffs.

3.2. The challenge of trade integration of Latin America and the Caribbean

Over the past twenty years, we have observed a steady progress towards regional economic integration in almost all parts of the world. However, in Latin America and the Caribbean, the levels of regional integration are considerably lower compared to other regions. According to data prior to the COVID-19 pandemic, despite LAC accounting for approximately 7.5% of global economic activity, its exports of goods and services only account for about 5.1% globally. That same year, LAC trade⁶ accounted for only 46% of regional GDP, a percentage below other markets, such as 56.3% of OECD member countries, or 87.8% of Europe and Central Asia⁷, whose regional trade / GDP ratios were higher, according to the World Development Index (2020).

LAC's main trading partners are China, the United States, and the European Union, which, all together, account for more than 60% of the region's total trade. Currently, the United States continues to be the most important trading partner for the region, receiving more than 40% of exports, equivalent to 8.5% of regional GDP. On the other hand, China and the European Union have a minor relative importance, attracting 15% and 9% of LAC exports, respectively. As for imports, the differences between the blocks are slightly smaller. The United States, China and the European Union account for 34%, 20% and 12% of the region's total imports, respectively (Campos and Timini, 2023).

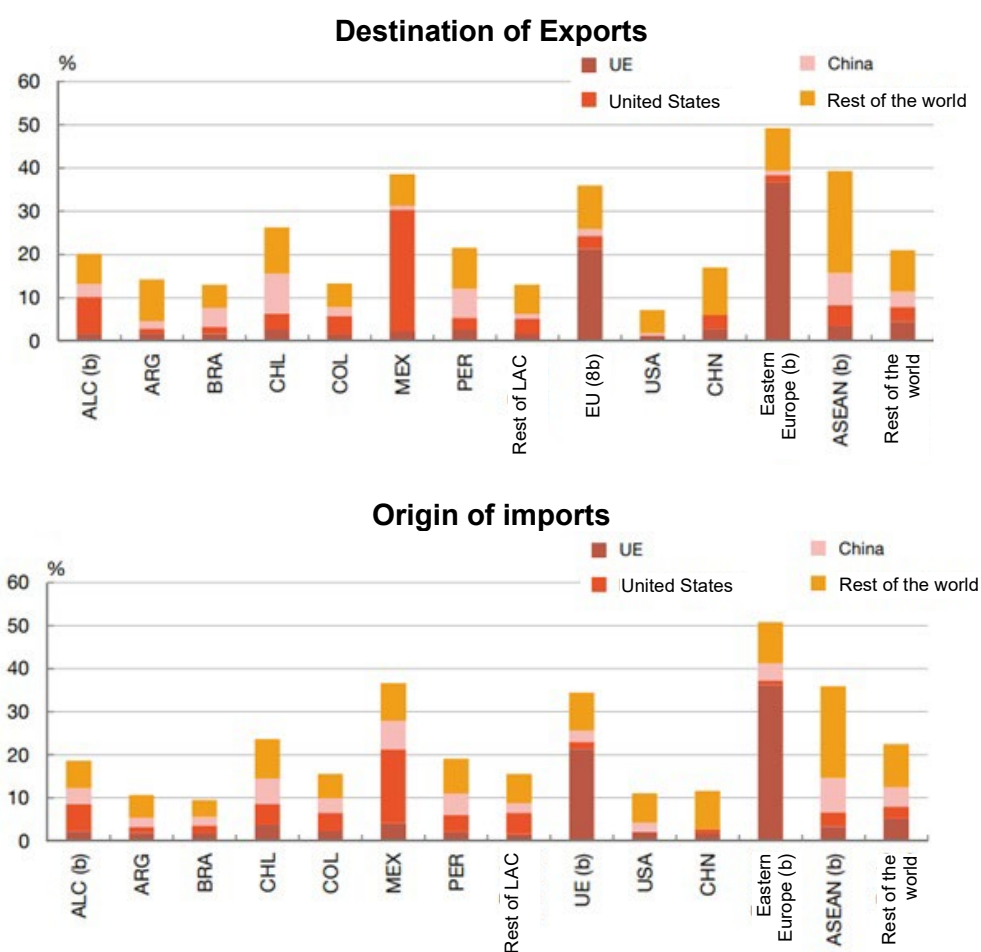
It is also important to underscore that China has emerged as a significant trading partner for LAC, with steady growth in imports of raw materials and exports of manufactured goods (Chart No. 12). In addition, China has become a major source of investment in the region, rapidly expanding beyond natural resources into other economic sectors. Another problem facing Latin American economies is the lack of diversity of the products that they export. With the exception of Mexico, manufactured goods in the region have been losing their relative economic importance, and value added is also declining (Chart No. 13).

⁵ Among others, they expand existing tax credits for capital investments (ITC) and production (ITP). The current production tax credit (PTC) of US\$0.15 per kWh and investment tax credit (ITC) of 30% will continue until 2024, after which they will become a technology-independent clean energy ITC or PTC.

⁶ Includes exports and imports.

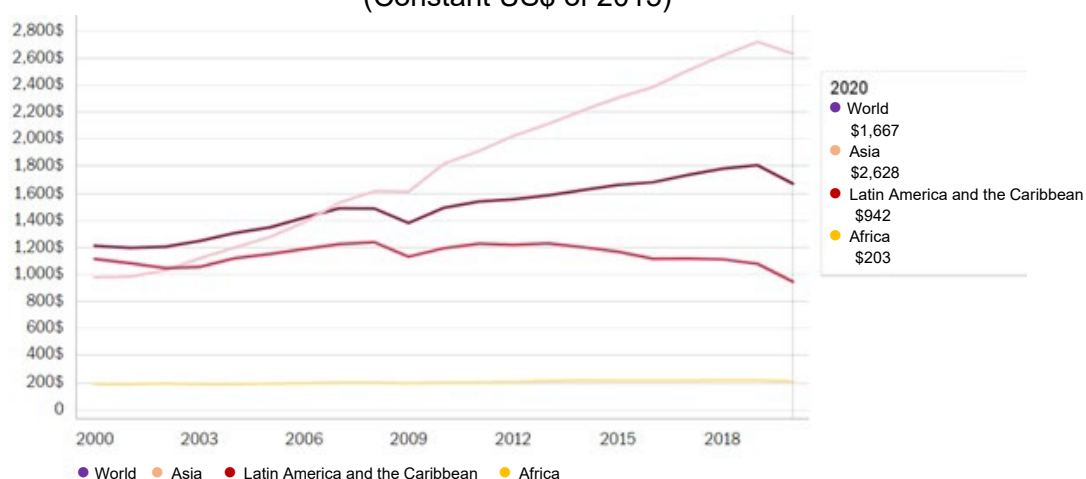
⁷ It refers to the importance of trade as a proportion of its GDP, as appropriate to the region.

Chart No. 12: Trade flow in Latin America in 2019
(As % of GDP)



Source: Banco de España and Centre d'Études Prospectives et d'Informations Internationales (2023).

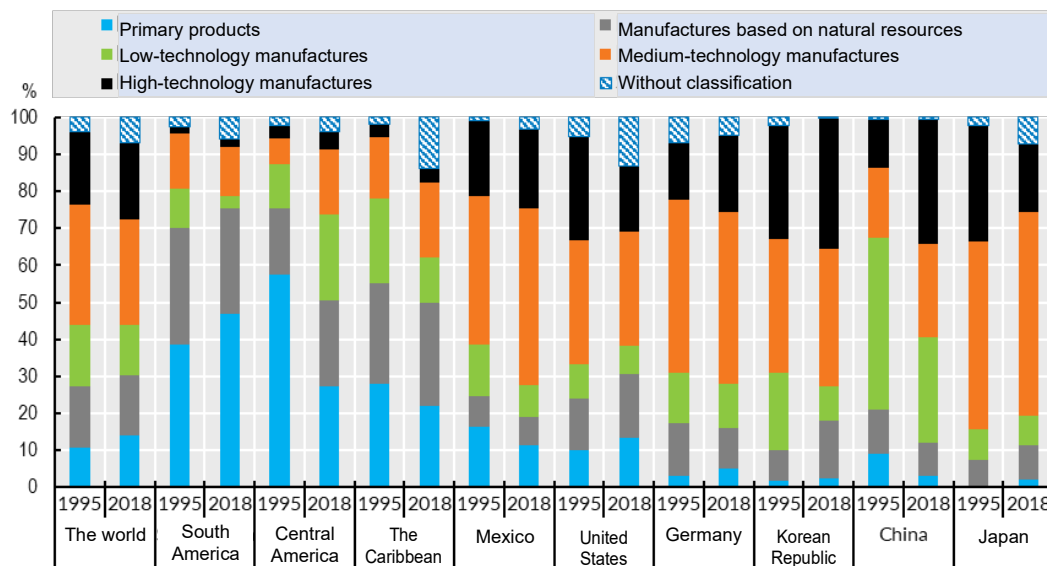
Chart No. 13: Value added of the manufacturing industry per capita
(Constant US\$ of 2015)



Source: ONUDI

Along this line, LAC's external consumer markets promoted more strongly the production of consumer goods (especially food) and supplies (minerals and energy), while manufacturing production lagged significantly (Kreimerman, 2020).

Chart No. 14: Exports of goods, by selected regions and countries and type of product, 1995-2018



Source: ECLAC (2020)

One of the main characteristics of globalization has been the trend towards the manufacture of products integrating materials and services from different provenances, and is manifested in the emergence of global value chains (GVCs). However, LAC has not been able to take advantage, not only of the insertion itself, but has focused on forward productive chains⁸ (Chart No. 18), that is to say, most Latin American countries are suppliers of primary products, with the exception of Mexico, which has had a different insertion with a predominance of backwards industrial chains⁹. LAC's share of these types of chains is low, at 18%, compared to 28% in Asia and 34% in Europe (Alvarez, 2021). It is considered that this low performance can be attributed to factors such as geography, informality, institutions, inequality, market size and resourcing, although policies also play a relevant role according to the World Bank (Alvarez, 2021).

3.3. Intraregional trade in Latin America and the Caribbean

The poor performance of Latin America and the Caribbean in the global value chains can also be better explained by its low regionalization. Intraregional trade in LAC remained stagnant, with scarce variation over time, at around 15% of total exports since the mid-nineties (Sanguinetti et al., 2021). These figures contrast with the results achieved by other regions of the world, such as Europe, where intraregional trade reaches 60% of the total, while in North America (including Mexico) it exceeded 45%, and in Southeast Asia it amounted to 34% (Table No. 4)¹⁰.

⁸ Its weight as the origin of foreign value added contained in world exports.

⁹ Backward linkages were significantly extended in the electrical equipment, vehicles and other transportation equipment sectors.

¹⁰ The Association of Southeast Asian Nations. Asean+3 includes China, South Korea and Japan.

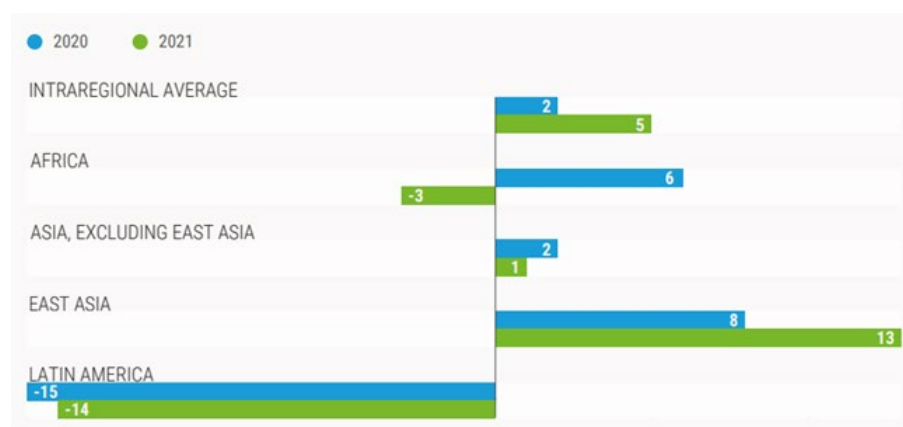
Table No. 4: Evolution of the share of intraregional exports in total exports of goods and services, by region or trade bloc (%)

	1995-1999	2000-2004	2005-2009	2010-2014	2015-2018
Latin America and subregions					
Latin America	18	15	17	18	15
Mercosur	21	13	13	13	12
Pacific Alliance	3	2	3	4	3
CAN	8	8	8	7	7
MCCA+RD	12	13	13	13	14
Caricom	8	8	9	8	7
Reference groups					
UE	58	57	58	55	55
TLCAN	39	46	42	40	38
ASEAN+3	32	32	32	34	34

Source: Sanguinetti et al. (2021)

The intraregional merchandise trade was resilient during the time of the pandemic, given that it declined on average less than global trade in 2020, and grew more in 2021. However, intraregional LAC trade declined more substantially than interregional trade overall, at close to 15 percentage points lower than interregional growth rates in both 2020 and 2021 (UNCTAD, 2022).

Chart No. 15: Intraregional growth of trade in goods compared to interregional growth. Changes in 2020 and 2021 compared to 2019 (%)



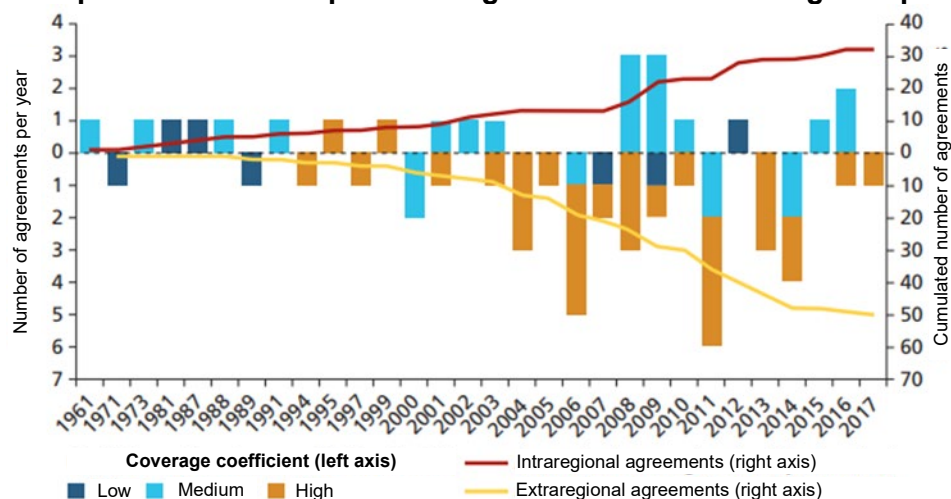
Source: UNCTAD

The scarce intraregional trade in Latin America and the Caribbean can be attributed to various factors, the most prominent of which are those that limit physical integration¹¹ and efficiency in transport infrastructure and services. The lack of common rules and regulations in key spaces for the development of value chains also plays an important role. Therefore, harmonization and regulatory convergence in trade agreements are considered essential to reduce trade costs. In LAC, logistics costs are double the global average, due to the lack of adequate infrastructure.

¹¹ Only one major highway "the Inter-oceanic" connects the Atlantic with the Pacific in South America through Brazil and Peru, and only one third of flights connect Latin American cities to each other, which reduces the cargo space available in aircraft holds for regional trade (O'Neil, 2022).

In addition, information expenses represent 6% to 13% of total production costs, while regulatory costs can reach up to 10%, depending on the product (Operti, 2019). These conditions in infrastructure, regulation and logistics costs represent significant obstacles that must be addressed to promote intraregional trade in the region.

Chart No. 16: LAC countries generally sign profound agreements with extra-regional partners and less profound agreements with intra-regional partners



3.4 Opportunities for Latin America and the Caribbean

(a) Offshoring of the global value chains

Global value chains (GVC) and regional value chains (GRC) are strategic tools that the region can strengthen to improve its presence in international trade, especially as a result of the lessons learned during the recent COVID-19 crisis, in logistical terms. The impact of the crisis on supply chains, logistics and the availability of goods has increased interest in relocating the production of sensitive goods, such as semiconductors, pharmaceuticals, critical raw materials and technologies.

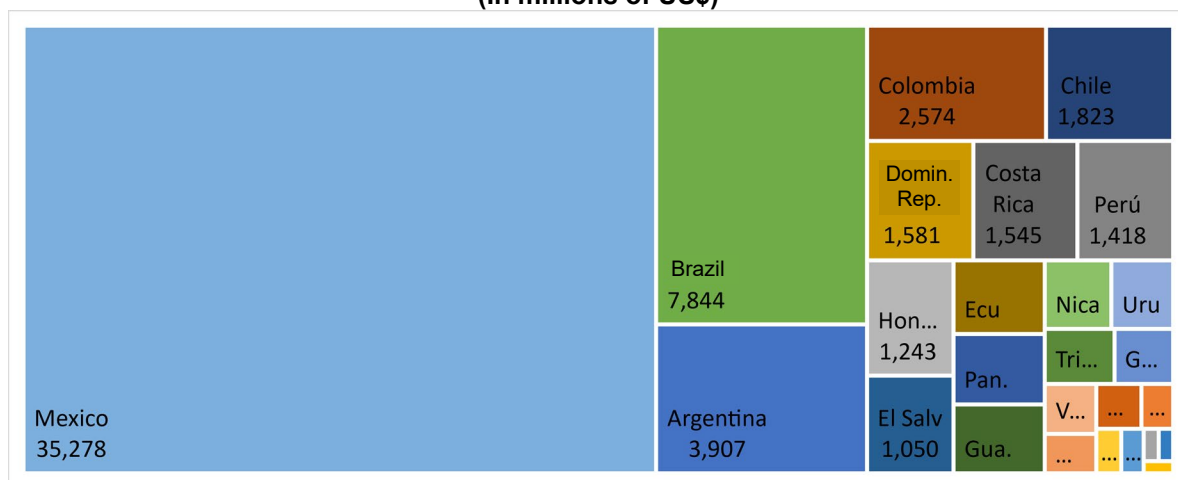
A priori, LAC can leverage some advantages in this new context, starting with its physical proximity to consumer markets, especially the US, given its preferential access derived from trade agreements. Some countries such as Mexico, El Salvador and the Dominican Republic have experience in international industrial investments¹². According to IDB estimates (2022), the offshoring process could add US\$78,000 million annually in additional exports of goods and services in LAC¹³ in the short and medium term, with opportunities for quick gains in the automotive, textile, pharmaceutical and renewable energy industries (Chart No. 21).

The demographic decline in China could also benefit the region, as it entails a lower labor availability, which will affect both production and consumption. Over the past decade, wages in China and other Asian countries have risen, weakening competitiveness in certain sectors that offer less value added going forward, both in terms of production and consumption.

¹² It is no coincidence that manufactures already represent 79% of Mexico's exports, 73% of El Salvador, 57% of the Dominican Republic and Costa Rica, and 42% of Guatemala (CAF, 2022).

¹³ Of which US\$64 billion correspond to exported goods and US\$14 billion to services.

Chart No. 17: Opportunities for LAC: total near offshoring, additional exports of goods
(In millions of US\$)



Source: Inter-American Development Bank (IDB)

In this context, LAC becomes a comparatively attractive option for the establishment of companies. Currently, the average wage in China's urban and industrial areas is around \$1,000 per month, a figure that already exceeds most Latin American wages and is almost double the salary received in the countries of the northern triangle of Central America (Honduras, El Salvador and Guatemala), which is one of the regions where factories could be established to supply the markets of the United States and Canada.

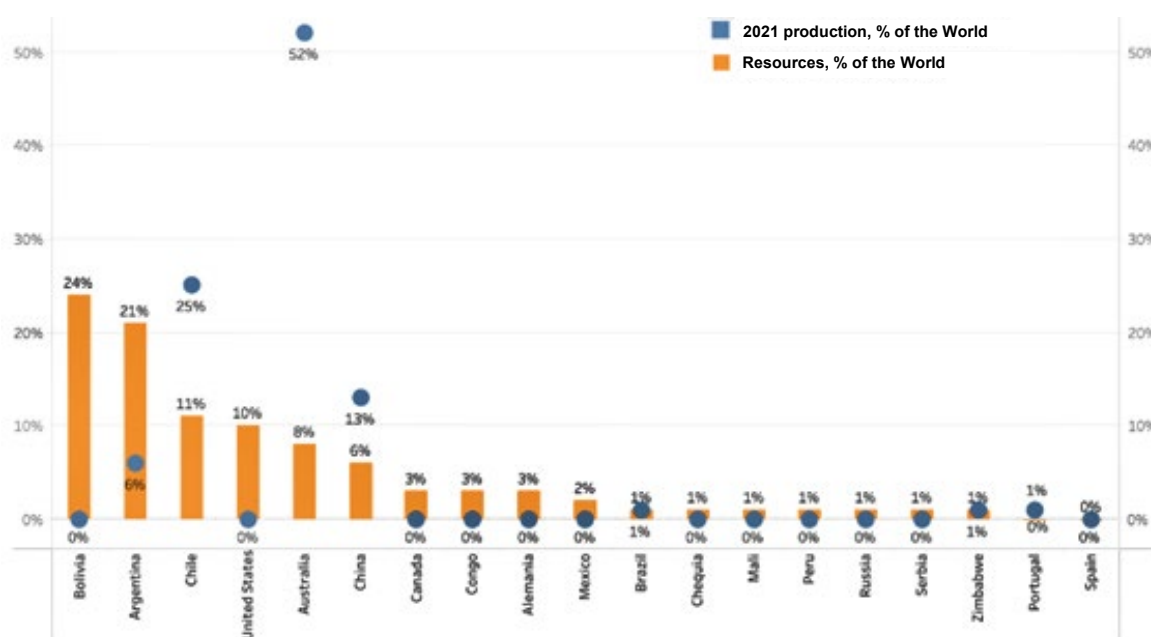
(b) Green transition

Regarding the green transition, Latin America and the Caribbean has two great natural advantages that it can leverage to advance in the energy transition. Firstly, the region possesses significant reserves of strategic minerals, such as lithium and rare earths, which are critical for the production of batteries and other equipment needed for the generation and use of renewable energy. Secondly, the region's biodiversity allows for carbon offsets, which represents an opportunity to contribute to the reduction of global emissions.

Moreover, LAC stands out for its strong initial position in the production of clean energy. More than 50% of the electricity generated in the region comes from renewable sources, and many countries boast abundant solar, wind and geothermal resources. The next commodity boom cycle is expected to lean towards the green sectors, and LAC has an abundance of minerals such as lithium, copper, cobalt, nickel and manganese, which are essential for these technologies. In particular, Argentina, Chile and Bolivia, together, account for more than 50% of the world's lithium reserves.

After Australia, Chile is at the forefront in the commercial utilization of these reserves and is the world's second largest exporter of lithium, while Argentina is experiencing rapid growth in its production (Chart No. 22). However, fully maximizing the benefits of lithium production is challenging, as most of the industry's economic benefits are derived from the battery value chain, where the major manufacturers with the largest market share are in Asia. This is due, among other factors, to their lithium refining capacity and the growing domestic market for electric vehicles in those countries.

Chart No. 18: Sources and production of lithium. Selected countries



Source: World Economic Forum

In LAC there are several facilities that produce lithium-ion batteries that are operational or will be online as of 2023, such as Quantum batteries in Bolivia, UniLib in Argentina and BYD in Brazil. But almost all of these are produced on a small scale or connected to a niche electric vehicle production plant, such as trucks or buses, and do not serve the general market. Although LAC is experiencing growth in the production of electric vehicles, it is not comparable with other continents such as Asia, with a production of 7 million; Europe with 2.7 million; and the U.S., with 1.4 million.

Table No. 5: Gigafactories of batteries by region, 2021

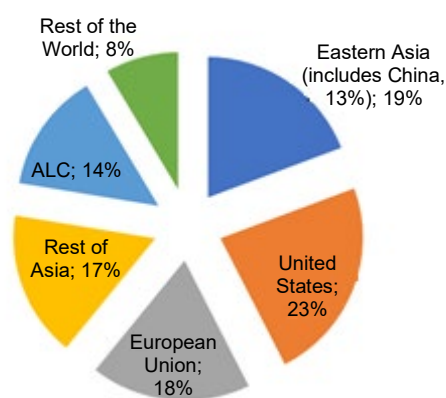
Region	# of gigafactories (2021)	%	# of gigafactories (2022 and beyond)	%
Asia	71	67	9	72
Europe	25	24	23	18
North America	9	8	13	10
South America	1	1	0	
Total	06	100	128	100

Source: Sánchez-López (2023)

(c) Developing food systems and boosting regional and global chains

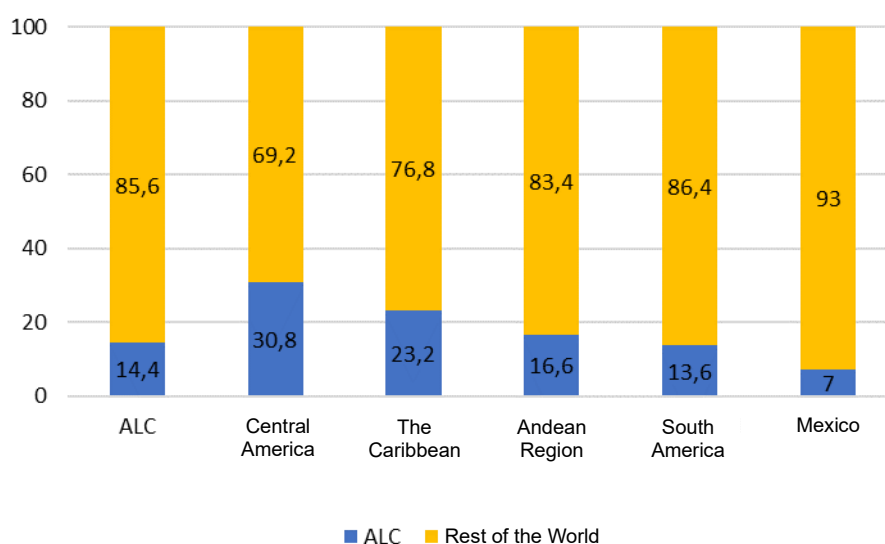
By 2050, population growth and dietary changes will put greater pressure on global agri-food systems. This represents a great opportunity for LAC to consolidate itself as one of the main food suppliers globally, incorporating criteria of sustainability, resilience and inclusion. This is based on the natural wealth of the region, whose forest biomass comprises 50% of its land area and almost 25% of the world's forests. Moreover, it houses a little more than 30% of the world's freshwater, and about 40% of renewable aquatic natural resources. With only 9% of the world's population and 4% of the rural population, LAC has 16% of the agricultural land (FAO 2019a) and 33% of the area suitable but not used for agriculture (Deininger and Byerlee 2012). Thus, the region contributes about 24% of the food consumed in the world.

**Chart No. 19: Agri-food exports of LAC by region of destination
(%, 2016-2018 period)**



Source: IICA

**Chart No. 20: LAC: intraregional agri-food exports and to the rest of the world
(%, 2016-2018 period)**



Source: IICA

The importance of LAC in agri-food terms makes it necessary to face certain challenges. One of these is that 60% of agri-food exports are mainly destined for three markets: the US, with 23%; East Asia, with 19 per cent; and the EU, with 18%; and in Asia, China stands out with a share of 13%. Moreover, LAC's agri-food exports are concentrated in a limited number of products, with 51% of the export value concentrated in 10 products¹⁴, while the global equivalent is 29% (IICA, 2019).

On the other hand, we observe that only 14.4% of agri-food exports are intraregional. Central America allocates 30.8% of its exports to LAC, followed by the Caribbean region, with 23.2%; and Andean with 16.6%. For comparison, 65.2% of EU agri-food exports (post-Brexit) are intraregional¹⁵.

¹⁴ They include soy, soybean oil cake, coffee, bovine meat, maize, soy oil, cane sugar, morcajo wheat, crustaceans, meat and edible remains of poultry under heading 0105.

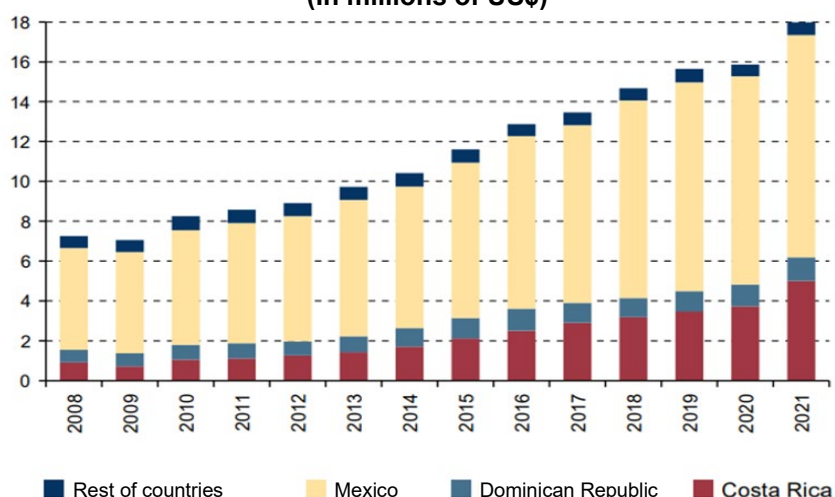
¹⁵ IICA (CAESPA) Data from Trade Data Monitor.

This level of concentration of trade in a few destinations and products poses great challenges for LAC. In principle, it is necessary to diversify trade and change production patterns. At the same time, it is an opportunity to increase LAC's presence in international markets, including the regional market (Rodríguez, 2021). Finally, for farmers in the region to access new markets, they must take advantage of the more than 140 preferential trade agreements signed, and to rebuild strategic alliances with their regional partners.

(d) Medical instruments and equipment industry

The region has a promising future as a global supplier of medical instruments and equipment, with a share of global exports that went from 6.6% in 2014 to 7.8% in 2018, which exceeds its share of global exports of goods. Between 2010 and 2019, exports of medical instruments and equipment expanded at an average annual rate of 7.2% (ECLAC, 2020). The main exporters were Mexico, Costa Rica and the Dominican Republic. These three countries accounted for 94% of exports of this industry, of which 70% comes from Mexico¹⁶.

Chart No. 21: LAC, exports of medical equipment and devices, 2008-2021
(In millions of US\$)



Source: ECLAC

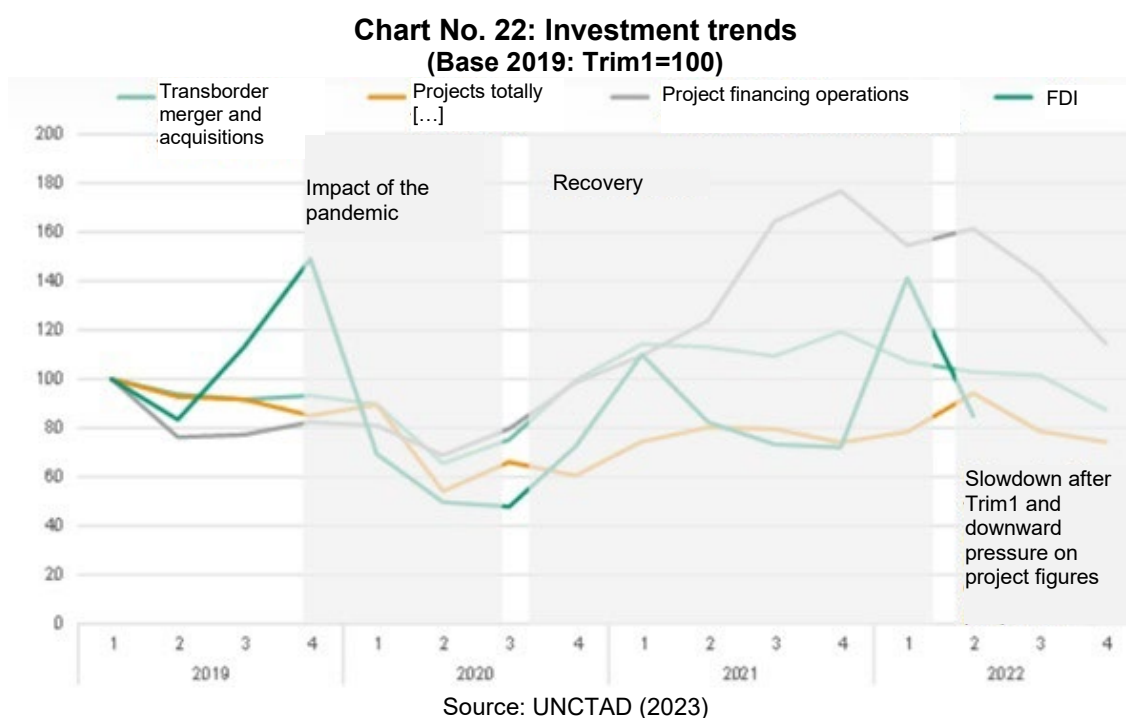
These three countries' exports come mainly from US and European companies that have established manufacturing centers and use abundant imported supplies¹⁷. These companies export mainly to the US and Canada, taking advantage of the geographical proximity, free trade agreements with these countries and tax benefits. In 2020, 89% of LAC medical device exports went to the US. In contrast, only 2% of shipments went to the region itself in the same year, compared to a level of 6% in 2010.

¹⁶ Mexico continues to expand markets. In 2022, it was the second supplier of these products to China, only surpassed by the US. With a year-on-year increase of 7%, according to data from the General Administration of Customs of China, the amount exported by Mexico was US\$2,037 million and the US, US\$3,257 million. In Costa Rica, this industry has become a strategic sector, contributing 30% of exports. In the Dominican Republic, these products contributed more than US\$11 billion between 2010 and 2019, 25% of the total exported in that period, this being the economic activity with the highest growth in the export of these devices that reached US\$2,276 million, in 2022 (Domínguez, 2019).

¹⁷ There has been an influx of medical device companies into LAC by opening manufacturing plants in Mexico. In 2022, Denmark-based device manufacturer Ambu inaugurated its largest manufacturing plant, with a total capacity close to 32 thousand m², and Nordson Medical opened its "Medical Device Manufacturing Center of Excellence" in Tecate, Baja California.

3.5 Investment prospects weaken

While during 2021, developed countries regained momentum in foreign direct investment (FDI), in developing countries the upward trend continued and FDI increased by 30% to reach US\$837,000 million, the highest level ever recorded. Global FDI is still concentrated in a few places. For example, FDI flows to developing countries in Asia account for 40% of global inflows, and increased by 19% in 2021, but only six economies concentrate more than 80% of said flow. Similarly, in the case of LAC, there are two countries that concentrate this investment, and represent 5.2% of global FDI inflows (Brazil and Mexico).

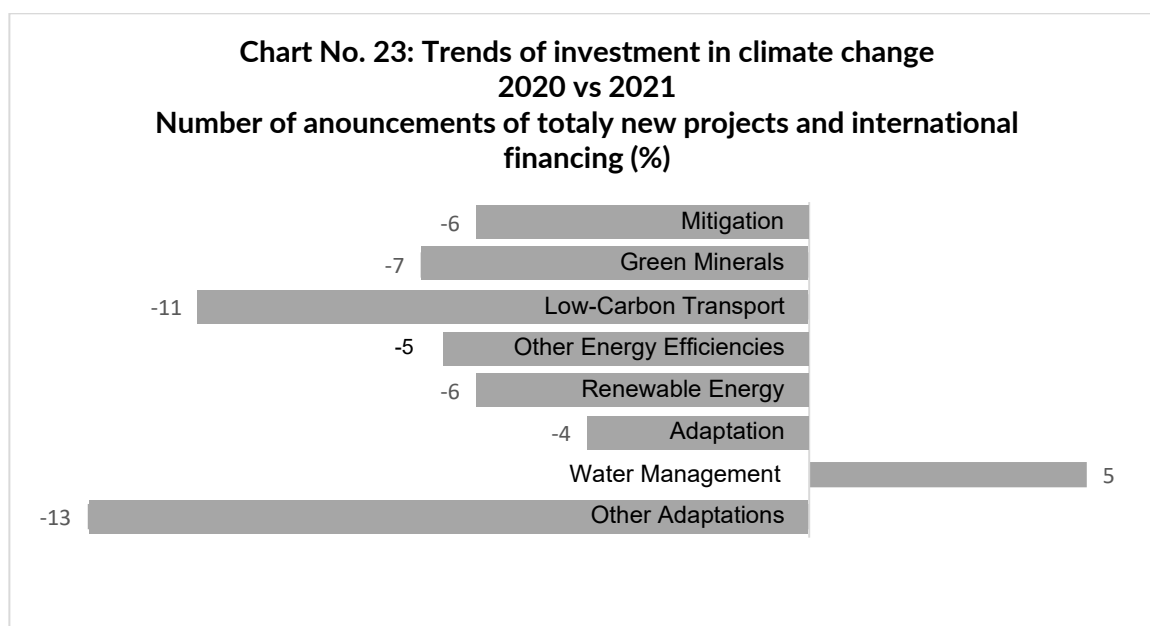


For UNCTAD (2023), the crises on the global stage inevitably affected FDI at the global level, mainly in new investment decisions, international project finance arrangements, and mergers and acquisitions (Chart No. 22). Added to this, in this year 2023 investment will have downward pressure worldwide, because several economies are expected to enter into recession. Other factors that would put downward pressure on investment include interest rate hikes and investor uncertainty in the face of multiple crises –especially in developing countries– and the rising risks associated with indebtedness levels.

On the other hand, the 70% increase in international investment in sectors relevant to the SDGs is a positive trend for developing countries. Investment in renewable energy and energy efficiency projects drives investments related to climate change, and financing for international projects increased thanks to favorable financing conditions, stimulus for infrastructure, and the appetite of financial market investors to participate in large-scale projects that require multiple financing providers.

Sustainable investment

Overall, international investment in climate change mitigation and adaptation dropped by more than 9% in value, and 6% in the number of projects. International financing figures for renewable energy projects – the bulk of investment in climate change mitigation in recent years– decreased by 5% and their value dropped almost by 40%. Developing countries face an annual investment gap in the SDGs of US\$4 trillion. But with interest rates rising in advanced economies, capital poured out of developing countries in 2022, a loss that could amount to more than US\$500,000 million in foregone income, which reduces foreign exchange reserves and global investment outflows (UNCTAD, 2022).



Source: UNCTAD

Investment in Latin America

In a scenario of weak economic recovery, LAC received close to US\$143 billion of FDI in 2021, 40.7% more than in 2020, but this growth was not enough to reach pre-pandemic levels. Though worldwide FDI amounts increased by 64% in 2021, reaching approximately US\$1.6 trillion, LAC lost share as a destination for global investments, representing 9% of the total, one of the lowest percentages in the last ten years, and far from the 14% registered in 2013 and 2014. The reactivation of investments in 2021 occurred in all subregions. The countries that received the most resources were Brazil (33% of the total), Mexico (23%), Chile (11%), Colombia (7%), Peru (5%) and Argentina (5%), according to ECLAC.

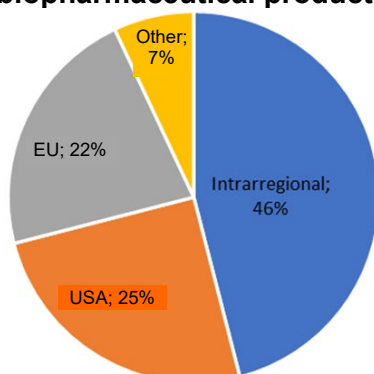
The services and natural resources sectors, with increases of 39% and 62%, respectively, were the most dynamic. Conversely, the manufacturing sector lost 14%, due to the decrease in investments in Brazil. The EU and the US were the main investors in 2021, accounting for 36% and 34% of the total, respectively. Telecommunications and renewable energies remained the sectors that aroused the greatest interest from foreign investors for the realization of new projects; however, announcements of new investment projects did not pick up in 2021 and are at their lowest point since 2007 (US\$51.5 billion). This coincides with greater investor interest in the development of new projects in developed economies, mainly in the EU and the US. The number of mergers and acquisitions in the region in 2021 increased by 33%, but is still at one of the lowest levels of the decade. The 20 largest operations totaled US\$18,000 million and occurred in Brazil, Chile, Colombia, Guatemala and Mexico (ECLAC Report, 2022).

Investment Opportunities for LAC

(a) Generic drug industry

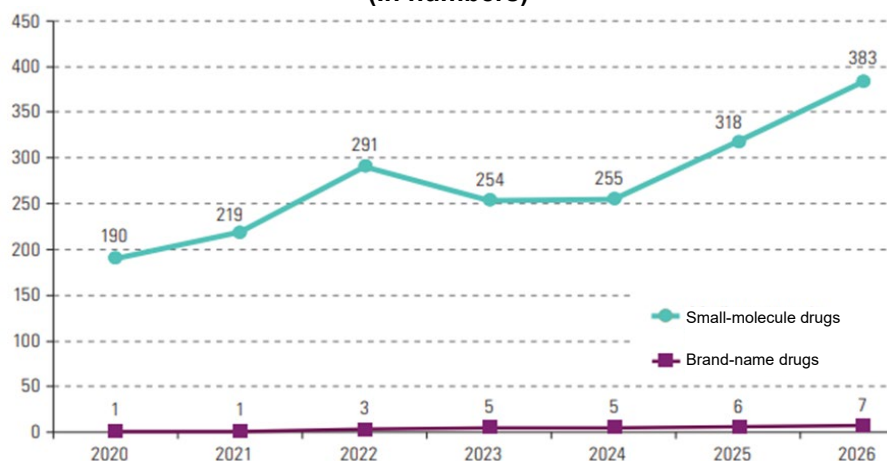
The COVID-19 pandemic uncovered an export niche market for LAC, following the problems arising from the closure of borders in China, the main producer of active ingredients, a supply for the production of generic drugs. In LAC, generic drugs are the most widely consumed. In terms of the composition of trade in pharmaceutical products, drugs account for almost 2/3 of total exports and 50% of LAC imports. Of the drugs exported, most are generic and go mainly to the intraregional market. The region as a whole accounts for somewhat more than 1% of global exports of pharmaceuticals and biopharmaceuticals.

Chart No. 24: LAC: Destination of exports of pharmaceutical and biopharmaceutical products



Source: ECLAC (2021b)

Chart No. 25: Patents expiring in the world, by type of drugs, 2020-2026. (In numbers)



Source: ECLAC, KPMG

With a significant capacity for generic production, LAC is projected to double the number of small-molecule¹⁸ and brand-name drugs whose patents are about to expire in the next five years. These are estimated at 383 small-molecule drugs and 7 brand-name drugs until 2026 (KPMG, 2020).

This market segment offers new possibilities for LAC producers. On the one hand, because the barriers to entry are relatively low, this being a subsector not necessarily characterized by R+D activities and frontier production processes. On the other hand, because transnational corporations usually retain their original trademarks after the expiration of the patent, but tend to relocate production to developing countries (ECLAC, 2022; Hasenclever et al., 2022).

(b) Strategic minerals

The technology needed to achieve the transition to clean energy is sustained by the use of critical metals and minerals such as copper, zinc, lithium and rare earths, key supplies for the production of batteries, and for electrification, electric mobility and digitalization. The needs of markets are different and depend on what their industries and sectors consider to be a priority. For example, the EU imports between 75% and 100% of the metals needed by its industry and its main supplier is China, both for raw materials and processed minerals. The University of Leuven forecasts that Europe would face shortages of lithium, cobalt, nickel, copper and rare earths in the next 15 years, while consultant McKinsey brought forward the deadline for the nickel and lithium deficit to 2025 (BNamericas, 2022a). Electric batteries, wind turbines and expanded power grids are just some of the segments that require high amounts of minerals. The World Bank estimates that mining production should grow by 500% by 2050 to support climate goals (Siroit, 2022). The resources currently exploited or mines currently planned cover only 50% of the lithium and 80% of the copper required. The energy transition will not be possible without exploiting new mineral resources (Becker, 2021).

Table No. 6: Latin America and the Caribbean: main reserves of minerals listed as critical

Mineral	Main producers in LAC	List of Critical Minerals	% World Reserve
Iron	BR, CH, PE, MX	China	20
Stain	BO, BR, PE	USA, China, Japan	20
Bauxite	JA, BR	USA UU, China	15
Zinc	BO, MX, PE	USA, Japan	17
Nickel	BR, CO	USA, China, Japan	17
Graphite	BR, MX	EU, USA	23
Copper	CH, PE, MX, AR, BR, PN	China, Japan	38
Gold	MX, CO, PE, EC, AR, RD, BR	China, Japan	14
Silver	AR, BO, MX, PE	Japan	39
Lithium	AR, BO, CH	EU, USA, China	52

Source: USGS, 2022

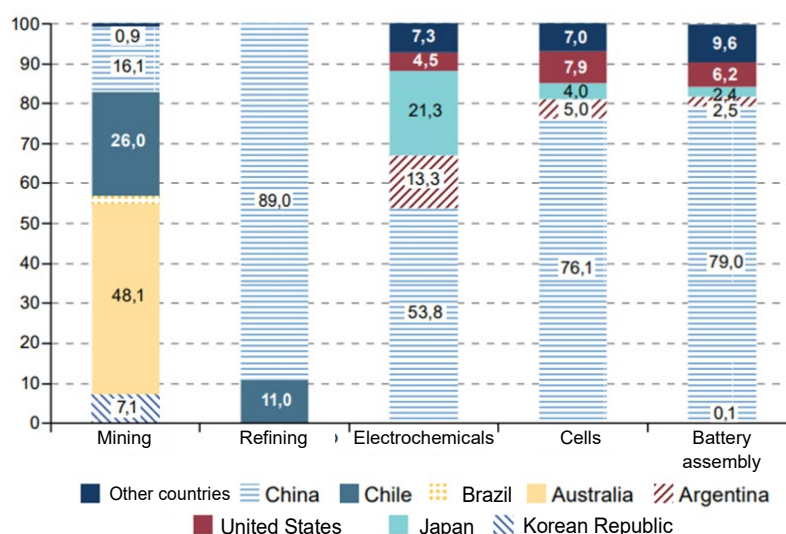
LAC plays a fundamental role in this growing supply of minerals due to its abundant resources. Only the triangle formed by the salt flats of Argentina, Bolivia and Chile concentrates 52% of the world's lithium reserves. Other countries that appear as global suppliers of lithium, although with a much lower level, are Brazil and Mexico. In addition, other countries with the possibility of developing reserves are Guatemala, Paraguay and Peru.

¹⁸ Small molecule drugs are low-molecular-weight compounds used to diagnose, treat, or prevent disease, including: aspirin, diphenhydramine, and natural products. Despite the pharmaceutical industry's increasing attention on biologic drugs, small-molecule drugs remain the largest category.

The main world reserves of lithium in millions of tons (t/y) are located in Bolivia (21%), Argentina, (19.3%), Chile (9.6%), Australia, (6.4%), China (5.1%), Canada (2.9%), Germany (2.7%), Mexico (1.7%). Argentina and Chile; which concentrated 91% of total US imports between 2016 and 2019 (Lajtmán & García Fernández, 2021).

Adding value to lithium can be a mobilizing objective of industrial policy. LAC is currently concentrated in the mineral extraction phase and loses share as one moves up the value chain, while the participation of Asian countries grows.

Chart No. 26: Estimation and projection of end-uses of lithium in the world, 2006-2030 (%)



Source: ECLAC

(c) Renewable energies and green hydrogen

Despite the reduction in FDI due to the pandemic, renewable energies remained the sector of greatest interest, with 33% of the amount of investments announced for LAC in 2021. With some 20 million people without access to electricity, investment in this sector is an opportunity to improve living conditions, generate employment and meet some of the SDGs. Only an annual investment of 1.3% of GDP until 2032, equivalent to US\$114 per capita (US\$80 billion at constant 2010 prices) can close the coverage gaps and reach an electricity matrix with more than 86% renewable energy in LAC. This could generate 7 million jobs and reduce greenhouse-effect gas emissions by 30% (ECLAC, 2021a).

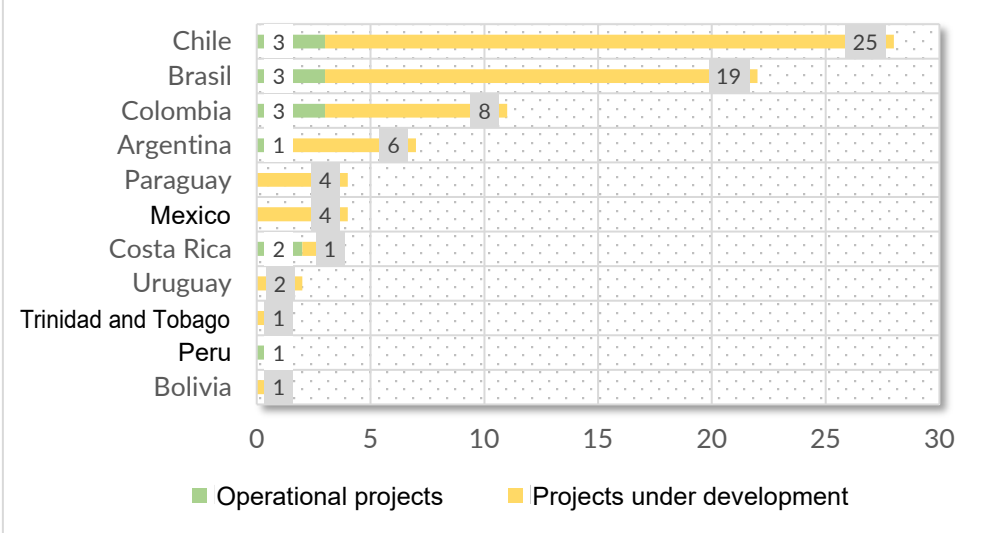
Another resource that is emerging as a key ally to achieve the ambitious decarbonization goals for 2050 is green hydrogen, which can allow LAC a new insertion in the transformation of the value chains of the energy transition with the export of renewables through hydrogen or its derivatives such as ammonia and green methanol. The region is well positioned to produce, store and distribute clean hydrogen at a competitive price. The main advantage is that the region has the energy matrix with the highest percentage of clean and renewable energies, in addition to an industry in need of decarbonizing its processes (Montes, 2022).

LAC countries are competing to position themselves in the international green hydrogen market, which is expected to take off as of 2025. According to the industry development index and based on five parameters, the most advanced countries in the region would be Chile, Colombia, Brazil, Uruguay, Argentina, Costa Rica and Mexico. Of these, Chile stands out for its National Strategy and a potential production of green hydrogen that could reach 160 million

tons per year. Although LAC is far from producing green hydrogen on a large scale, advances in regulation, planning and incentive programs are playing a key role in attracting the attention of developers and offering good long-term prospects (BNamericas, 2022b).

According to the 2022 H2LAC Index, there were 84 operational or development projects in the region, which in 2021 produced 94 million tons of this resource, whose increase in demand generates an encouraging outlook for large foreign investments in LAC.

Chart No. 27: Green hydrogen projects in Latin America and the Caribbean



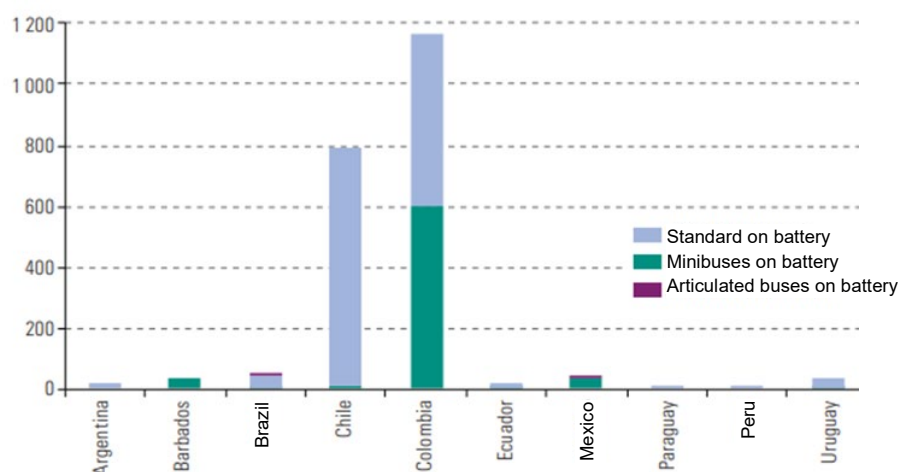
Source: H2LAC

(d) Electromobility

The global trend indicates that the future of the automotive sector will be electric. The EU has set a deadline for gasoline: by 2035, new cars with internal combustion engines will cease to be sold. Climate change and the process of transformation of the automotive sector open an opportunity to promote investments and develop productive capacities. However, to move forward in this direction, productive policies are required to stimulate demand and support supply. The segment of electric buses for public transport is where the most interesting opportunities are, and also where it is necessary to define a clear productive policy for the entire sector (ECLAC, 2022).

According to ECLAC (2022), the adoption of stricter environmental standards and regulations, with the purpose of reducing greenhouse-effect gas emissions, represents an important step to promote electromobility. Moreover, some LAC countries, such as Chile, Colombia and Costa Rica, have set targets for the electrification of public transport vehicles. Among LAC countries, instruments promoting the purchase, use, and circulation of electric buses have predominated, but most initiatives do not prioritize the procurement of locally produced buses. In some cases, tax exemptions and tariff reductions have been granted for the purchase and import of electric buses, for example, in Colombia (Bocarejo, 2022) and Mexico (Vázquez, 2022). This situation, coupled with the lack of policies and incentives to support the manufacture or assembly of electric buses, has not encouraged local production.

Chart No. 28: LAC, electric buses by model and country, April 2022
(Number of units)



Source: ECLAC

Continuing with ECLAC's investment report (2022), the experiences that have taken place for the incorporation of electric buses in public transport fleets are interesting, but still very occasional, and are limited to some cities in the region. Currently, Colombia leads the incorporation of electric buses, especially in the city of Bogotá, with 1,165 units, followed by Chile (789), Brazil (49) and Mexico (48). Despite the incipient increase in demand for electric buses in the region and the favorable outlook for the coming years, regional supply is not keeping pace. The lack of adequate incentives hinders the investment capacity in the transition to low-carbon, more energy-efficient options.

CHAPTER IV

DEVELOPMENT BANKING AND INTERNATIONAL COMPETITIVENESS

In the field of international trade, as a result of geopolitical interests, a set of considerations has become apparent that are influencing the nature of global business relations and the promotion of international trade. In turn, we observe in different regions that countries are engaging in territorial and transcontinental initiatives, which include a variety of projects and involve the mobilization of large amounts of financing and investment, to configure physical infrastructure corridors with commercial and geopolitical approaches. In this context, development finance institutions are a fundamental instrument for governments to articulate the strategies of the countries and productive sectors in Latin America and the Caribbean, to compete in the international arena. This, through direct support to companies in their participation in international markets, or indirectly, through the financing of local infrastructure to improve their ability to compete internationally.

4.1. Development banking in boosting trade and investment

After having gone through probably the most critical period of recession in recent history, LAC (-6.8% GDP in 2020) needs greater resource mobilization, attracting investments that help close productive and social gaps, and creating capacities that allow it to build more dynamic productive systems capable of creating greater added value. All this is framed in the incorporation of environmental, social and governance criteria, which allow building a more resilient and sustainable economy.

The actions of development entities are fundamental, because they help close the investment gap in various sectors by boosting resource mobilization. Financial support from development banks helps mobilize private capital participation, attracting diverse actors such as commercial banks, investment funds or private companies. These interventions are carried out through institutions with mandates ranging from general considerations to the fulfillment of more specific tasks.

In their investment and foreign trade support strategies, development banks use financial instruments similar to other financial institutions, generally loans (pre- and post-shipment financing), for working capital, international factoring, forfaiting, guarantees and insurance. In addition, development banks finance infrastructure projects that support international trade, such as ports, airports, roads, and bridges. This helps improve the efficiency of trade logistics and reduce transportation costs. They can also facilitate the companies' access to markets by providing market information, trade promotion and networking opportunities; helping companies comply with the regulations and trade rules of different countries.

As for access to business financing, SMEs face the greatest restrictions in using and benefiting from existing trade and investment finance facilities. In the case of LAC, the internationalization of SMEs is very limited. Their share of the region's total exports does not exceed 5% on average, which contrasts with the case of EU countries, where smaller companies can generate more than 50% of exports. In contrast, large companies in LAC easily exceed 80% of sales abroad (Dini & Stumpo, 2020). Therefore, Development Banking seeks to facilitate support mechanisms for a greater number of SMEs to access the regional and global market as exporters of goods and services with added value, integrating them into value chains.

Table No. 7: Latin America and the European Union (7 countries). Share of companies in exports, by size (%)

Country	Businesses			
	Microbusinesses	Small	Medium	Large
Argentina ^a	0,3	1,6	6,5	91,6
Brasil ^b	0,1	0,9	9,5	82,9
Chile	-	0,4	1,5	97,9
Germany	8,0	12,0	18,0	62,0
Spain	11,1	13,3	22,6	47,1
France	17,0	10,0	15,0	58,0
Italy	9,0	19,0	28,0	44,0

Source: Dini & Stumpo (2020)

In this regard, development banks play an important role as catalysts for the development of trade finance, and to strengthen public policies that allow a greater internationalization of SMEs. Development banks support and encourage exports and investment by guaranteeing international trade and investment transactions and providing direct financing.

Financing backed by development banks is particularly useful for SMEs, because it allows them to carry out transactions normally reserved for larger entities, which have greater commercial and financial resources.

In this regard, based on information on trade financing programs from 19 development banks in 12 LAC countries, compiled by ALIDE in 2022, we observe that the most frequently offered programs by these institutions are pre- or post-export financing, with 38% of the total programs implemented. Secondly, invoice discounts and advances and leasing accounted for 17% and 10% of total programs, respectively. An analysis of programs aimed at financing foreign trade by development banks identifies that the beneficiaries are exporters, importers, foreign importers, and suppliers of the exporters. 57% of the programs are aimed exclusively at exporters, and assuming those programs that have exporters as one of their possible recipients, that percentage rises to 85% (Chart No. 29).

It is worth mentioning that those programs that finance imports consider the acquisition of supplies to produce exportable goods, that is to say, they import raw materials or capital goods. In terms of indirect aid to local exporters, through financing to foreign importers, Banco do Brasil and BNDES stand out; and in terms of financing programs for the suppliers of exporters, another indirect aid to the latter, entities such as Nafin-Bancomext stand out. The operational modality of these foreign trade financing programs is mainly direct, in 73% of cases.

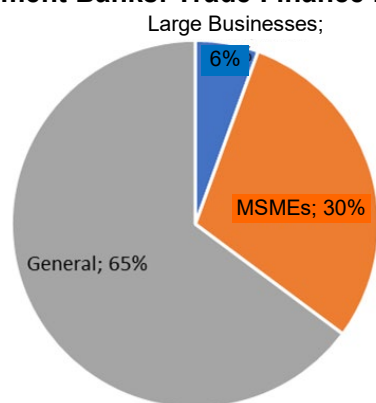
Depending on the size of the exporting company, we observe that the majority (65%) are of a general nature, although a few cases have been detected that are aimed at a particular sector such as SMEs or large companies (Chart No. 30). Some examples are: the BNDES program called "Exim Post-Shipment Aircraft", which is aimed at the production of aircraft and aircraft engines; and "Export Ally", of Banco de Comercio Exterior de Colombia (Bancoldex), which supports the internationalization plans of SMEs based on a direct credit in dollars for working capital. In turn, the Banco Nacional de las Exportaciones (Bandex) has at the disposal of companies led by Dominican women the "Exporting Women Fund", which seeks to encourage export by these SMEs.

Chart No. 29: LAC Development Banks: Beneficiaries of Trade Finance Programs



Source: ALIDE / ECLAC
Crafted in-house

Chart No. 30: LAC Development Banks: Trade Finance Programs, by Company Size



Source: ALIDE
Crafted in-house

Finally, from the information analyzed, we conclude that the promotion of intraregional trade is not a fundamental part of the programs of the development banks of the region. Many of the trade finance programs reviewed have a general, rather than intraregional, approach. An exception to this trend is Argentina's BICE, which launched credit lines at subsidized rates to promote bilateral trade with Brazil, and for which BICE signed an agreement with BNDES with the aim of promoting joint projects. The measure provides for an extension to US\$55 million of credits at a rate subsidized by the Ministry of Productive Development of Argentina, and an investment line totaling US\$49 million for credits of up to seven years with a rate subsidized by the National Fund for Productive Development (Fondep). In addition, it includes a quota of US\$5.5 million exclusively for MSMEs exporting to Brazil, with an extra rate bonus of 2 points, for those exporting for the first time. It is important to take into account that 55% of Argentina's exports to Brazil are industrially manufactured, while to the rest of the world this percentage does not exceed 20% (De Mendiguren, 2021).

Also in Argentina, the Banco de la Provincia de Buenos Aires (Bapro) opted to boost production to encourage the internationalization of SMEs. This, after analyzing that regional value chains include them as suppliers of productive materials and very basic industrial products. Thus, the bank achieved that 87% of the placements be aimed at companies (7.3 out of every 10 dollars are directed to SMEs), especially in the industry, services and production sector. It also provides support to SMEs in their process of internationalization and introduction into new markets, through bilateral meetings between exporting entrepreneurs and potential international importers; and importers, to establish contact and trade networks with exporters abroad.

Although there are no specific programs aimed at supporting trade between countries in the region, there are some that, in practice, may have that nature. For example, the "Foreign Trade Guarantee" program, with which Bancomext grants a guarantee for financial intermediaries abroad (such as those in the region) to finance buyers of Mexican products and/or services. Moreover, Bancomext signed an agreement with Bladex, through which the latter could finance companies importing Mexican goods or services that are participating in projects that represent their internationalization of Mexican origin that export or generate foreign exchange; and foreign participants in projects considered as FDI in Mexico.

Similarly, FIRA and Bancomext partnered with Canada's Centre Port to support Mexican companies to increase their trade as suppliers in the Canadian and Midwestern US markets. This alliance generates for Mexican SMEs the possibility of accessing new trade and investment opportunities, and that Mexican products and capital may reach the Canadian market efficiently and at lower costs; and accompany the internationalization of Mexican companies with soft financing, promotion and support for exports and financial and technical assistance for the development of agricultural and infrastructure projects. The goal is for companies to have a commercial or productive arm in Canada so that they can operate new offices or place their products and services in processed product markets in which they already have a presence in Canada. Bancomext, supports mainly SMEs with financing and guarantees. FIRA does so with resources and financial and technological support to the agricultural, forestry, fisheries and rural sectors, and financing programs and products and/or guarantees to companies that participate with Centre Port.

Mexico has had for several years a bilateral treaty with the United States that seeks to promote the activities of SMEs to join the production chains of the United States, and vice versa. However, for SMEs to enter these circuits is a risk, so development banks such as Bancomext-Nafin, have various financing instruments that include credit and guarantees, as well as equity, for the different stages of the process of development and evolution of companies, for all stages of the production and marketing process, complemented with training programs to guarantee the survival of the businesses when internationalizing. There is still a long way to go in Mexico to bank SMEs and help them in their internationalization process, so financial institutions represent a vehicle to reduce this type of gap.

Banco Nación Argentina and Banco Nacional de Fomento (BNF) of Paraguay, for their part, established an agreement to outline credit lines that allow Paraguayan SMEs installed in Argentina to access loans and grant the remittance service to national clients of both banks, residents in both Argentina and Paraguay. With this agreement, both Argentine and Paraguayan companies will be able to carry out binational business by crossing their currencies and without the need for dollars, which lowers costs (ADN, 2018).

Banco de la República Oriental del Uruguay (BROU) plays a central role in financing and inclusive economic growth by supporting the private sector through a wide range of short-, medium- and long-term products. Despite the great opportunity for internationalization of SMEs, the percentage of participation of these companies in exports is almost negligible. Faced with this, the BROU has sought, on the one hand, to provide a comprehensive program of support in the process of internationalization of companies, and, on the other hand, a set of associated services to reduce costs and promote the insertion of these businesses in international markets. Together with organizations such as the Union of Exporters, the National Development Agency, the National Agency for the Promotion of Investments and Exports, and the Agency for Research and Innovation, they have developed a pilot program called "SME to the World", to provide small- and medium-sized enterprises with the tools, resources, skills and advice necessary to be able to internationalize and stay in the market. For the program, 21 companies were selected. The initiative will be developed in three phases: determination of the plan for internationalization; implementation of the plan, and analysis of results.

4.2. Contribution of Development Banks to the financing of productive infrastructure as a form of support to competitiveness

Development banks are essential to promote productive infrastructure, not only through credits for capital goods, but also with financing for connectivity (roads, railways, ports, airports), energy generation, ICTs, and, in general, those infrastructures that improve competitiveness, logistics, and facilitate access to markets, trade, and tourism; that is to say, that infrastructure that provides the basis on which the factors of production interact, which enables transactions within a given geographical and economic area, and of this with the exterior.

However, the new reality imposed by climate change makes it necessary to carry out a process of transformation in the traditional ways of producing or building, which leads to the need for productive infrastructure to be sustainable¹⁹, inasmuch as the decisions on the amount, type and location of infrastructure investments today will have impacts on the climate, natural resources and the environment for generations. This infrastructure must be resilient and have the capacity to function and meet the needs of users during and after a natural hazard. Unreliable infrastructure services can have adverse effects on the operation of value chains, reducing aggregate productivity and compromising the competitiveness of an economy (Rentschler et al., 2019).

In this framework, development banks are in a unique position to support sustainable, resilient and inclusive infrastructure financing due to the nature of their mandate. Their objective includes the promotion of socio-economic development, through direct financing and through actions to encourage the expansion of private and financial sector participation. In relation to this, ALIDE (2022) identified that 70.4% of development banks finance, in one way or another, productive infrastructure and basic services, mainly in areas related to the construction of communication routes (land, air and sea) at 38%; water and sanitation works at 22%; power generation at 17%; and distribution logistics (storage and refrigeration systems) at 10%. The most commonly used instruments are medium- and long-term loans in 23% of cases; trusts at 20%; syndicated loans at 14%; and, to a lesser extent, through guarantees, at 6%.

¹⁹ It being understood that it is framed in the fulfillment of certain standards that seek: First, that its adverse effects on the global climate are minimal. Second, that it be resilient to the effects of climate change, and that it have minimal effects on natural resources and local environments.

The most widely used financing modalities are direct credit to private companies, mainly for small- and medium-sized projects, such as renewable energy generation; loans to subnational governments, medium- and long-term loans and the administration of trusts, instruments operated by second-tier banks. Development banks contribute, in addition to financing, by providing technical and financial capacities: technical capacities for the identification, formulation and execution of infrastructure projects, and the evaluation of their environmental and social risks; and financial capacities to provide own and private sector funds; to promote joint financing actions with other financial institutions, trusts, auxiliary credit organizations and with the social and private sectors; and temporarily participate in the share capital of companies.

Moreover, these entities act as financial agents or technical advisors in the planning, financing and execution of programs, projects and works of public services or of social interest, related to their mandate, at the request of their national and subnational governments. Next, we present the experience of development banks that have been promoting the financing of productive infrastructure.

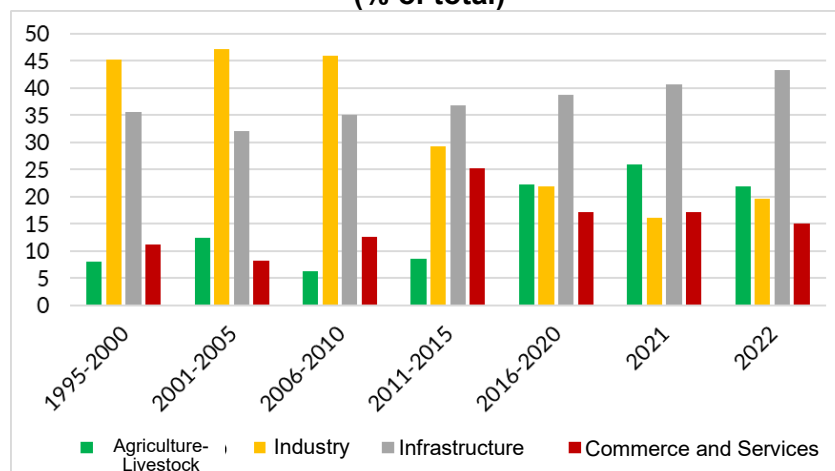
- **Banco Nacional de Desenvolvimento Econômico e Social (BNDES), Brazil**

The BNDES supports the infrastructure sector through long-term financing, direct and indirect financing, via financial intermediaries. In the former, the financing is associated with investments of greater amount and term; and in the latter, the financial intermediary grants a credit to its clients for its application only for the purposes admitted by the Development Bank, such as the acquisition of a capital good. These indirect operations are generally aimed at investment projects of lower value, low complexity and shorter term compared to direct credit. The BNDES complements its financing capacity, combining its resources and the capital market, through the issuance of bonds for companies in the sector, such as debentures that are acquired by banks to keep them in treasury or to be placed in the investment funds that they manage; and infrastructure debentures, which are available to individuals who seek to diversify the risk and profitability of their portfolios, which enjoy exemption from income tax. The BNDES also structures concession projects and public-private partnerships.

As of 2006, infrastructure was once again the main sector of the bank's loans. From the 2006-2010 period, disbursements to the infrastructure sector continued to gain weight in the bank's total disbursement structure and represented an average of 32% of these, reaching a peak of 43.3% in 2022. Disbursements made by the BNDES in 2022 to promote development in various sectors totaled US\$18.5 billion, 51.7% more than in 2021. Of the 43.3% allocated to the infrastructure sector, almost 90% was oriented to investments in the energy and transport sector. Financing for transport infrastructure in all its forms alone accounted for 44% of the total; energy²⁰ 39.6%; basic services 6.9%; construction 3.4%; and the telecommunications sector 1%.

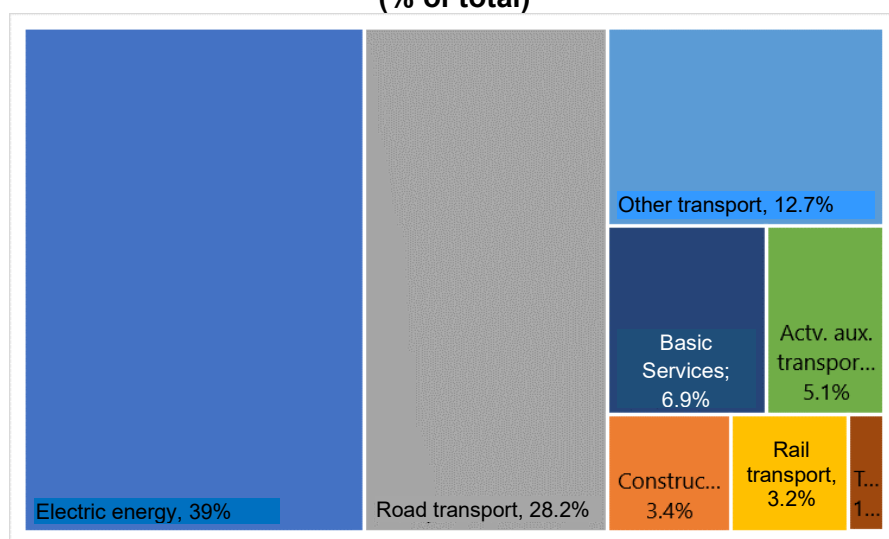
²⁰ The energy sector includes financing the generation of hydropower, wind, thermal, nuclear and biomass, as well as support for the transmission, distribution and rationalization of energy use.

**Chart No. 31: Structure of BNDES disbursements by economic sector
(% of total)**



Source: BNDES / Crafted by ALIDE

**Chart No. 32: Structure of BNDES financing for infrastructure 2022
(% of total)**



Source: BNDES / Crafted by ALIDE

Aware of the enormous challenges facing Brazil in 2030, the bank projected that investments of around US\$590 billion are required in the infrastructure sector. Only the transport sector, where logistics is concentrated on roads that support 61% of the total load, out of 1.7 million kilometers of available roads only 12.4% are properly paved. These challenges led the BNDES to create a “Project Factory”, which relies on its diagnosis that the infrastructure deficit in Brazil is due to a great lack of well-structured projects that allow to attract private resources.

BNDES: Project Factory

Since 2019, BNDES has acted as a service bank of the Brazilian state, complementing the financing offer. The combination of well-structured projects and long-term project financing has changed the reality of Brazil's infrastructure, allowing higher volumes of debt, reducing investor guarantees, attracting new players and improving the governance of the sector (BNDES, 2022).

In less than three years, the bank became the world leader in project structuring, according to Infralogic. The entity went from having structured 22 projects in August 2019 to more than 160 in 2022, which represented US\$852 million in capital mobilized. It is estimated that, from 2021 to 2026 alone, 30% of the investments committed in sanitation and roads in Brazil will be the result of bank projects. In 2020, BNDES launched the "Project Hub", a web portal that brings together the entire portfolio of projects. In it, it is possible to consult the characteristics and status of each project being structured, aside from information on all the sectors in which the bank operates.

The creation of this Factory made the bank go beyond the position of creditor and began to act as a vehicle for the modernization of the State. During the first round of sanitation infrastructure structuring alone, BNDES attracted at least six groups to the market, with global players in capital structuring and one participant from the energy sector, as well as putting three consortiums in the competition for water and sewerage services in the interior and in the Alagoas jungle. Also, 43 bids were submitted for the Ports of Espírito Santo, and the largest operation in the energy sector in the world was set up.

BNDES: Co-financing, guarantee and *project finance*

The bank's great capacity to interact with various national and foreign financial institutions, international funds and multilateral organizations, prompted it to develop new financing modalities, having co-financing and tolerance of greater risk as basic foundations for structuring its operations. One of the instruments of this new role in infrastructure financing is *project finance* without resources²¹.

In 2021²², the bank launched the "Coordination Services in Public Offerings" program, through which it acts as coordinator of public offerings of debentures and contributes with its ability to structure infrastructure projects and make placements viable by offering firm guarantee. This service encourages the issuance of long-term private securities, signaling to individual or institutional investors the quality of the assets and encouraging the development of the long-term debentures market. In addition, it allows to support issuances or series intended to finance corporate reorganizations, working capital and financial restructuring.

In summary, the strategy emphasizes the promotion of the supply of long-term credit by the market, which allows the entity's resources to be invested in projects of great social impact, as well as in the coverage of risks that the private sector has difficulty assuming. Through these innovations, the Bank simultaneously promotes the "crowding in" of the financing and private investment market, attracting new actors and providing more resources to the sector, in addition to multiplying the impact of its resources.

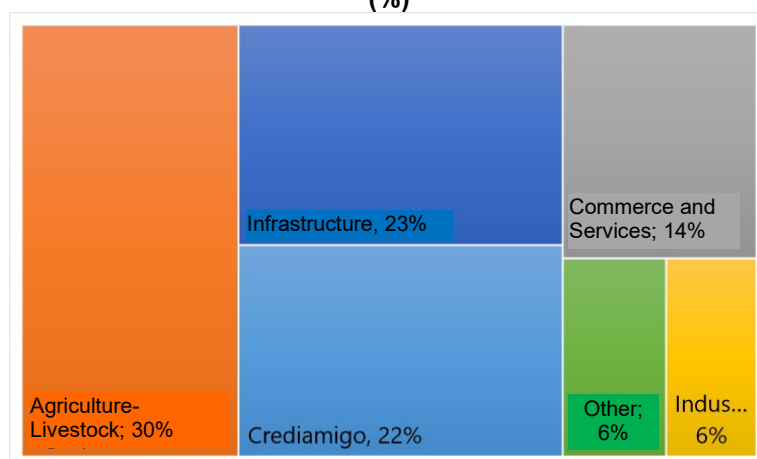
²¹ This instrument allowed the structuring of several operations that may have had difficulties in accessing credit, such as the concession of the MT-100, a highway of about 100 km in length in Mato Grosso; the financing of Line 6 of the São Paulo Metro, which provides for the creation of 15 stations and their accesses on 15.3 km of track; and Aena's investments in six airports in the Northeast Block, granted to the private sector in 2020, in order to modernize and expand airport infrastructures, with an estimated 50% increase in airport capacity, and an estimated flow of 19 million passengers in 2030.

²² That same year, BNDES carried out the first structuring for a public offering of debentures, participating in the total issuance of 341 million Gás Natural Açú (GNA I), which won the IJGlobal Awards 2021 - Refinancing Deal of the Year. GNA I has 1,338.3 MW of power, enough to supply the needs of about 6 million Brazilian homes, contributing to the country's energy security. Since the beginning of the debenture structuring process, BNDES has already acted as structuring/coordinator in four public offerings. They total US\$795 million in financing for infrastructure operations, of which the Bank will disburse only US\$227 million, a proportion of 29% of the total invested.

- **Banco do Nordeste (BNB), Brazil**

Through the Northeast Constitutional Fund (FNE)²³, the BNB has gradually expanded its support for infrastructure projects in its area of operation. Since 2018, the bank ventured into infrastructure financing with the launch of its "FNE Proinfra" credit line. Previously, it could not use FNE resources to finance the energy sector. In 2022, the BNB disbursed US\$9,300 million with resources from the FNE and other sources, being the largest amount in the bank's history, which generated an increase of 23.5% in the injection of funds into the northeastern economy, compared to 2021. The infrastructure sector was the main recipient with US\$2,090 million (22.5% of the total).

Chart No. 33: BNB, Structure of disbursements by economic sector (%)



Source: Banco do Nordeste (BNB),

The bank is looking to go beyond the region's recurring financing, such as basic sanitation, to expand financing to renewable energy infrastructure and logistics, which are critical to the region's greater growth. In the last four years, renewable energy projects in BNB's area of operation have already received more than US\$4,700 million. This amount corresponds to all credit operations for wind and solar panels of all customer sizes. Only in 2022, the bank committed US\$1,110 million. In addition, it plans to invest US\$378 million in the infrastructure and energy area of Ceará, of a total US\$1,900 million from the Green FNE. Of the amount to be invested, US\$189 million will be allocated to the promotion of the Green Hydrogen (H2V) pole. In terms of logistics, the bank disbursed US\$150 million for renovation and modernization works at three airports. The funds come from the FNE Proinfra credit line. The bank also financed the construction of other works carried out through public-private partnerships (APP)²⁴.

²³ The resources come from the collection of Income Tax and the Tax on Industrialized Products to the electricity sector. BNB financing, with resources from the FNE, is limited to R\$1.7 billion per financial group. BNB can finance, with FNE resources, projects in the Northeast and North of the States of Minas Gerais and Espírito Santo.

²⁴ For example, the construction of the Estrada do Feijão bridge over the São Francisco River, linking Barra and Xique-Xique, in Bahia, cost US\$25 million through a public-private partnership between the state government and Estrada do Feijão Concessionaire.

- **Financiera de Desarrollo Nacional (FDN), Colombia**

An entity specialized in promoting the development of infrastructure through prefeasibility and feasibility studies, the integral structuring of projects, and the obtaining of resources for the financing of projects. The FDN has concentrated its efforts on managing and incentivizing the financing and structuring of infrastructure projects, and supports the bank of infrastructure projects of the Colombian State.

Table No. 8. FDN: products and services

Structuring	Structured finance	Term deposit Certificates
Pre-feasibility and feasibility studies and designs	Senior debt	Offers institutional investors dematerialized CDTs, with a return according to the established term.
Integral structuring	Multipurpose liquidity facility	
Sectorial studies required in the pre-investment	Bank guarantee	
Advice and accompaniment in adjudication	Funding in pesos	
Investment Banking	Miniperm Debt	Bonds
Financial structuring of projects	Purchase of economic rights from energy distributors/traders (CDE)	They can be ordinary, hybrid or thematic.
Debt restructuring	<i>Project Finance</i>	
Securing resources	Capital Markets:	
Valuation and advice on processes of disposal of state assets	*Types of structurings:	
Fiscal analysis of public entities to identify sources of financing	Titlings	
Design and development of financial vehicles	Construction or zero-day bonds	
Project evaluation	Q&M Bonds	
Fiduciary businesses	Investment vehicles	
	Products & Services:	
	Advice on structuring solutions in the capital market	
	Commitment to subscribing titles (CST)	
	Partial Guarantee	
	Socio-environmental standards	

Source: Financiera de Desarrollo Nacional (FDN)

Crafted by ALIDE

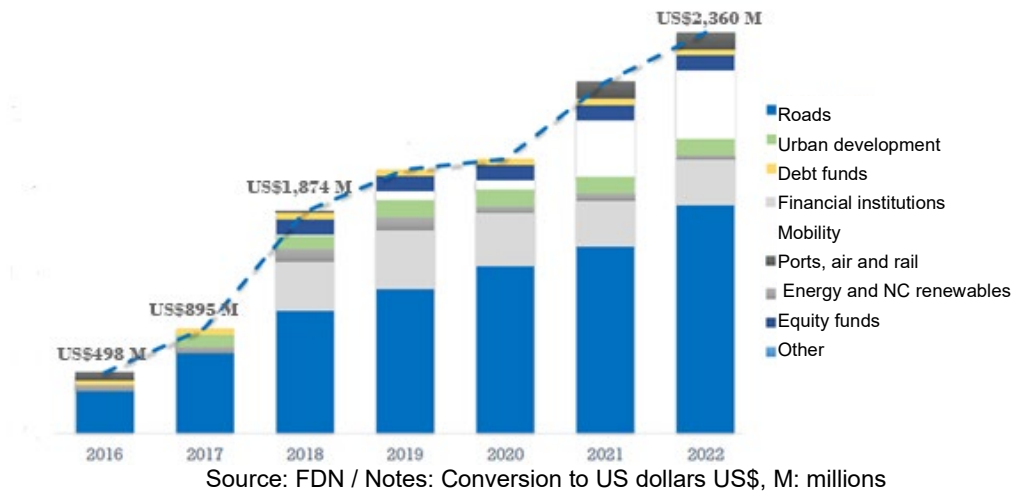
Its financial products include senior and subordinated debt for long-term projects, guarantees, liquidity lines, credit improvements, standardization of financial products, issuance of infrastructure bonds, technical assistance and funding in local currency to international and multilateral banks. Aside from this, it has a dynamizing role in the creation of debt funds and investment vehicles, which have encouraged the participation of different investors, including institutional investors. Up to 2022, the FDN has structured projects for the amount of US\$9,450 million in projects under execution and completed the structuring stage²⁵.

²⁵ Where projects such as: the second line of the Bogotá metro, the light train of the Medellín metro on 80th Street, the Valle del Cauca commuter train, Antioquia logistics platform, the extension of line 1 of the Bogotá metro and the railway corridor between La Dorada and Chiriguaná stand out. In addition to that, in investment banking it is leading the restructuring of Transcaribe, which is an important project to replicate in other municipalities with mass transport, and continues to work on proposals for a charging fund to replace polluting vehicles with electric vehicles.

FDN is one of the largest individual funders of the fourth-generation road concession program, accounting for 13.6% of financing commitments. With US\$1,400 million as of December 2022, in more than 10 projects through senior debt, bank guarantees, funding lines and liquidity facilities.

In other sectors, it is the largest funder of electric mobility projects in the Colombian market. In 2022, it financed the “Green Móvil” project, which will provide Bogotá's mass transit system with 406 electric buses, Transmilenio, with US\$94.3 million, where senior debt credit corresponded to 66% of the total financing, and a liquidity line for US\$14.1 million (FDN, 2023).

Chart No. 34: FDN: cumulative commitments (US\$)



During 2022, the FDN has committed US\$2,360 million, of which half are disbursed, and in the coming years it expects to finish disbursing the rest. However, not only have these resources increased, but commitments in other sectors have also been expanded. To the projects available in roads and projects, projects in mobility, ports, airports, railway lines, energy, and others have been added. In terms of sustainability, in addition to the financing of electric buses, the FDN participates as a funder in the urban mobility sector with the signing of the credit agreement for the Calle 80 Metro in Medellín for US\$236 million. Moreover, the financial institution is advancing in the credit analysis of telecommunications projects that seek to improve digital connectivity in remote areas of Colombia, the generation of electricity from non-conventional renewable sources, the recovery of river navigability and the mitigation of potential floods.

- Financiera del Desarrollo Territorial (Findeter), Colombia**

Findeter finances projects that promote territorial integration, infrastructure and logistics, complementing the actions of the National Infrastructure Agency. In 2022, Findeter financed projects in 12 sectors in the amount of US\$905 million, 57.4% more than the previous year. The sectors that received the highest disbursements are transportation, with 25.8%; health, with 24.1%; urban development, with 14.4%; and energy development, with 11.7%.

Table No. 9: Findeter, disbursements by sector 2021-2022
(%)

Sectors	2021	2022	Difference
Transport	27.5%	25.8%	-1.7%
Health	8.7%	24.1%	15.5%
Urban development	20.0%	14.4%	-5.6%
Energy development	20.2%	11.7%	-8.5%
Education	8.2%	9.9%	1.8%
TICs	1.6%	n.d.	n.d.
Other	13.8%	14.0%	-1.4%

Source: Findeter
Crafted by ALIDE

The financial institution has credit lines for the energy, infrastructure and transport sectors, with terms of up to 15 years and three grace years. In addition, it provides technical assistance and it structures infrastructure projects in several regions of the country²⁶.

Findeter has developed 17 territorial planning projects in 30 municipalities and 21 departments, as well as departmental land-use plans; action plans within the framework of the Sustainable Cities and Emblematic Cities programs, the public transport system of Manizales (Caldas), among others. In project structuring, Findeter has provided technical assistance for 39 projects that have benefited 34 municipalities. It also participates in the financing of other special projects²⁷.

- **Banco Nacional de Obras y Servicios Públicos (Banobras), Mexico**

Banobras grants financing to states, municipalities and projects with private participation. It provides not only financing to the former two, but also technical assistance to strengthen their management and contribute to the strengthening of their public finances. For the development of infrastructure projects with private participation, Banobras finances large projects that improve the competitiveness of the productive apparatus and to boost economic growth. With this funding, projects are developed in different strategic sectors: transport, roads, energy, ICT, among others.

At the closing of 2022, Banobras' loan portfolio amounted to US\$27,700 million, which represented a growth of 10.3% compared to 2021. In 2021, the bank obtained for the third consecutive year the highest growth in credit disbursements²⁸ with US\$4,800 million. In 97% of cases, these disbursements were granted directly, while 3% were granted via induced credit²⁹, through different products, services and programs³⁰.

²⁶ Among the initiatives financed to public entities and companies, there are mobility projects such as road interchanges in municipalities of the Aburrá Valley (with about US\$58 million), which allow maintaining supply chains to the United States on the Magdalena River as a way to get to or from the port; the Toyo tunnel in Antioquia, which promises to reduce travel time between Medellín and Urabá to 4 hours. The tunnel, 9.75 kilometers in length, the longest in Colombia, involves an investment of \$2 billion pesos. Also, the construction of the Pereira Air Cable, the renovation of the Aburra vehicle fleet. Previously, it had financed the purchase of 22 cars for the Medellín metro (US\$13 million) among others.

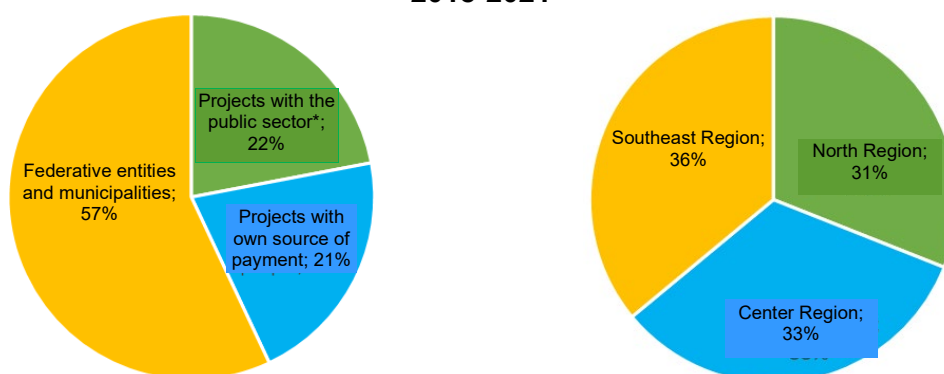
²⁷ Projects such as: 1) In the reconstruction of Providencia Island, the expansion of the platform and construction of the new terminal of El Embrujo Airport and the control tower, the dredging of the port of Barranquilla; 2) Vías del Samán: in agreement with Invías, Findeter executes projects such as the Cerritos – La Virginia dual carriageway; the dual carriageway La Romelia – El Pollo; the Tacurumbí intersection; the improvement of the Cartago – Alcalá road and the integral management of the corridors; and, 3) Cicada Roads: Findeter for the administration of resources and maintenance of sections of roads in the municipalities of Rionegro and Lebrija in Santander.

²⁸ Traditional and syndicated credit, refinancing, restructuring and funding to financial intermediaries.

²⁹ Financial guarantees, guarantees, guaranteed refinancing and contingent lines of credit.

³⁰ In recent years, the following stand out for business lines aimed at productive infrastructure: 1) Financing to States, Municipalities and their Agencies: construction of Line 1, Cuauhtepac-Indios Verdes, and Line 2, Constitution 1917-Santa

**Chart No. 35: Granting of credit by type of line of business and region
2018-2021**



Source: Banobras

Notes: (*) Disbursements to infrastructure projects by the Federal Government

In the road sector, the bank participated in the financing of 12 projects for the rehabilitation, conservation, modernization or expansion of road sections, which benefit the population of 16 Mexican states, by contributing to improving their connectivity. Moreover, in terms of ICT, the bank promotes the deployment and operation of a shared wholesale 4G telecommunications network, which includes the utilization of 90 MHz of the spectrum freed by the transition to digital terrestrial television in the 700 MHz frequency band. The project involves an estimated total investment of US\$2,270 million.

Banobras is responsible for the administration and operation of trust businesses in various sectors, such as road, transport and social infrastructure. The National Infrastructure Fund (Fonadin) is a trust whose purpose is to promote the mobilization of private capital in the development of infrastructure projects with high social profitability. In addition, the fund is the concessionaire of the largest road network in Mexico, composed of 49 road sections, which adds up to a total length of 4,435 km.

Since 2009, Fonadin has actively participated as an investor in the creation of several venture capital funds to promote investment in infrastructure and also as an anchor investor in order to strengthen the market for this type of instruments. These funds include Prologis Mexico Manager, a trust issuing development capital certificates (CKD)³¹, in which Mexican investors participated to invest in industrial properties; and Fondo PRUMEX III, to invest in industrial properties for warehousing, logistics and distribution activities.

Catarina, both of the Cablebus Public Transport System; 2) Financing for Infrastructure Projects: it has financed projects in different strategic sectors, such as the construction of the Puerto Libertad Photovoltaic Park in the state of Sonora, with an investment of US\$263.9 million; the 30.4 MW San Matías wind farm in the state of Baja California; The construction of a 396 MW wind farm in the municipalities of Juchitán and El Espinal, in the state of Oaxaca, a project called Energía Eólica del Sur. The construction, operation and maintenance of the 100 MW Tastiota Photovoltaic Power Plant in Sonora.

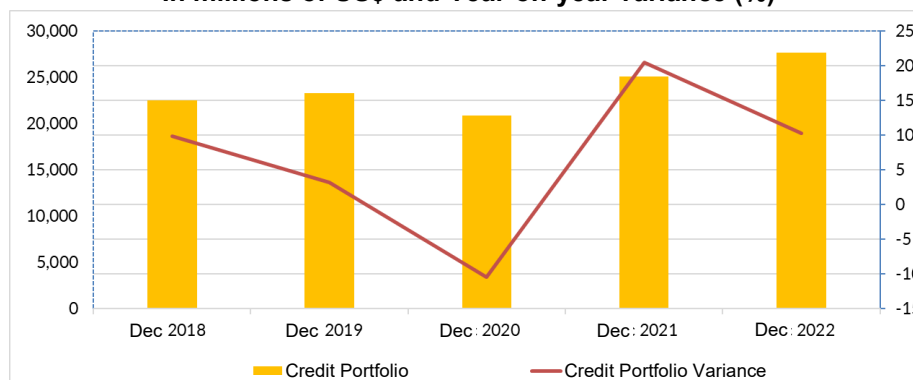
³¹ Trust stock certificates issued by trust, represent the right to participate in a part of the income that is part of the trust assets or the proceeds of its sale.

Table No. 10: Banobras, products, services and programs

Financing	Direct credit: traditional credit, syndicated loans, refinancing, restructuring and funding to financial intermediaries		Induced credit: financial guarantees, guarantees, guaranteed refinancing and contingent lines of credit.		
Infrastructure promotion	Promotion of investment in social infrastructure projects with high profitability in order to attract private investors. Mexico Projects Platform: https://www.proyectosmexico.gob.mx/				
Technical Assistance Programs	Financial and institutional strengthening of state and municipal governments.				
Fiduciary businesses	With the administration of resources of public and private trusts.				
Products, accessories and risk mitigation mechanisms	Contingent lines of credit: revolving line of credit assigned to a state, municipality, or agency	Guarantees of timely payment: complement to the credit that guarantees a creditor the timely payment of interest and principal up to a certain amount.	Guaranteed refinancing: it is a portfolio purchase and sale mechanism. To the contracting banks, it guarantees the purchase of their credits at a future date up to a maximum guaranteed amount if they are in force in their contractual obligations at the time of execution.	Refinancing: consists in the prepayment by Banobras of a loan previously contracted by the public entity with another institution, from the resources of a new loan that fits the needs of the borrower.	Restructuring: consists in the formalization of an amending agreement to a previous credit agreement between the public entity and Banobras to incorporate new conditions that fit the needs of the borrower

Source: Banobras / Crafted by ALIDE

Chart No. 36: Banobras' loan portfolio
In millions of US\$ and Year-on-year variance (%)



Source: Banobras

In sustainable infrastructure, at the end of 2021, the bank's project loan portfolio was US\$3,070 million, and included projects with impact to mitigate the effects of climate change and high social impact, such as renewable energy projects (hydroelectric plants, photovoltaic parks, wind farms); infrastructure damaged by natural disasters; public transport projects; wastewater treatment plants; among others³².

³² Banobras has been very active in issuing thematic bonds. It is the main underwriter of sustainable bonds in the local stock market, with a total amount of US\$2.14 billion.

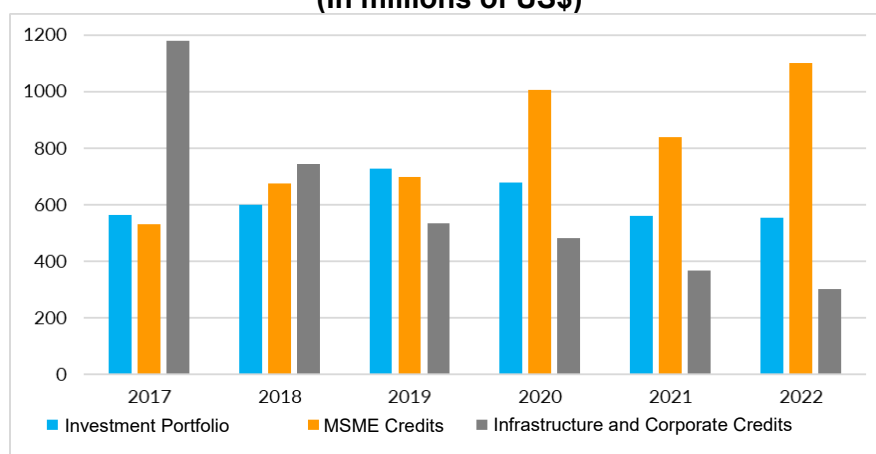
- **Corporación Financiera de Desarrollo (Cofide), Peru**

Cofide focuses on financing public and private infrastructure projects and productive investment, as well as financing MSMEs, through financial intermediaries and the provision of inclusion and entrepreneurship programs. In addition, it has been acting as administrator of public and private trusts over the past 25 years.

Investment in infrastructure occurs through the co-financing of resources (based on long-term bridge loans), granting of guarantees, and investments in debt instruments issued to finance this type of projects. Also, it uses the trusts from PPPs in order to execute infrastructure works and provide public services with greater efficiency and quality. Cofide maintains relations with multilateral organizations and with different financial development entities to raise resources and finance projects of common interest.

In recent years, Cofide's loan and investment portfolio has been concentrating, mainly, on working capital loans for SMEs to the detriment of infrastructure and corporate loans. As of December 2022, the portfolio of credits and investments by economic sector shows that Cofide has been financing 33% of the productive infrastructure. Between 2012 and 2022, the corporation has helped close the infrastructure gap in Peru, through the financing of projects valued at more than US\$3,000 million, where it contributed almost US\$1,000 million. In this way, the corporation was a catalyst and lever (3 to 1) for private investment in infrastructure projects and concessions through PPPs.

Chart No. 37: Cofide, loan and investment portfolio 2017-2022
(In millions of US\$)



Source: COFIDE

CHAPTER V

CONCLUSIONS AND FINAL CONSIDERATIONS

- Currently, concerns persist about the economic deterioration worldwide. At the same time, central banks continue policies of raising interest rates to contain inflation, which remains at relatively high levels. In addition, alerts were generated about potential problems in the banking sector that raised fears of a further deterioration, especially in the US and Europe. In this context, weak economic growth is expected for Latin America and the Caribbean, of just 1.2% in 2023. Despite this, there are opportunities to develop new productive capacities in the region, due to its natural capital and its relationship with the main markets. Today, LAC has the opportunity to strengthen its relations with the different regions and to attract investors for the relocation of industries, to export medicines, medical instruments and devices; provide food, and exploit strategic minerals; and take advantage of the energy transition and continue developing renewable energy projects.
- By 2050, population growth and dietary changes will generate greater demand for food globally, with 87% of the largest supply expected to come from productivity improvements. LAC's natural wealth, which supports its potential as a food supplier, would be boosted by investment in technologies and genetic improvement. The region has a large amount of forest biomass, covering 50% of its land area and almost 25% of the world's forests. In addition, it holds more than 30% of the world's freshwater and 40% of renewable aquatic resources. Despite having only 9% of the world's population and 4% of the rural population, LAC has 16% of the agricultural land and 33% of the area suitable for agriculture. In addition, the region produces 24% of food and 28% of global agro-exports.
- The impact of the crisis on supply chains, logistics and the availability of goods has increased interest in relocating production of sensitive goods, such as semiconductors, pharmaceuticals, raw materials and critical technologies. A priori, LAC can take advantage of some advantages in this new context, starting with its physical proximity to consumer markets, especially the US, given its preferential access derived from trade agreements. It is estimated that the offshoring process could add US\$78 billion annually in exports in LAC in the short and medium term, with rapid results in the automotive, textile, pharmaceutical and renewable energy industries, among others.
- The technology needed to achieve the transition to clean energy relies on the use of metals and minerals that are key supplies for the production of batteries, and for electrification, electric mobility and digitalization. Thus, it is estimated that the mining production should grow by 500% by 2050 in order to support the climate objectives. The resources currently exploited and the currently planned mines cover only 50% of the lithium and 80% of the copper required. In this context of transition, LAC has a fundamental role in this growing supply of key minerals due to its abundant resources.
- Another resource that is emerging as a key ally to achieve the decarbonization goals for 2050 is green hydrogen, which can allow LAC a new insertion in the transformation of value chains. LAC is considered to be very well positioned to produce, store and distribute clean hydrogen at a competitive price. The main advantage is that the region has the energy matrix with the highest percentage of clean and renewable energies, in addition to an industry in need of decarbonizing its processes.

- Relative to other regions, LAC lags behind in terms of physical infrastructure, especially in the areas of transport and digital connectivity. The region ranks fifth out of 7 regions in terms of the overall state of public infrastructure. Transport infrastructure is one of its main weaknesses, lacking integrated transport networks and having a low density of paved roads. Urban transport has been improved by investments made in public transport systems in the most populated cities. In ports, there are improvements in their connectivity with maritime transport networks worldwide, but complementary works are required. In addition, LAC continues to have one of the lowest rail network densities in the world.
- In digital infrastructure, advances have been achieved during the pandemic due to increased digital adoption. However, there is an evident gap, with more than 50% of the population without fixed broadband connectivity, and only 9.9% of households with high-quality fiber optics. It is important to take into account that in order for LAC to take advantage of the business and investment opportunities derived from the use of new digital technologies, it must improve the infrastructure linked to mobile connectivity, the 5G network, private networks and data centers. Closing the digital infrastructure gap in LAC would be cheaper than addressing gaps in the transport, energy and other types of infrastructure sectors.
- It is estimated that the region will require a total investment of approximately US\$2.2 trillion in infrastructure until 2030 in order to achieve alignment with the SDGs. Most of the investment, so far, is financed mainly by the public sector, but the private sector also plays an important role. However, it is estimated that of the 2.3% invested by the public sector, 0.65% is lost due to inefficiencies. In addition, States are somewhat over-indebted, which limits their ability to direct more resources towards infrastructure projects. Therefore, seeking greater involvement of the private sector is extremely important.
- Development banks are fundamental to foment the productive infrastructure, not only by financing the acquisition of capital goods, but also connectivity, energy generation, ICT, and, in general, those infrastructures that improve competitiveness, logistics, and facilitate access to markets. The most commonly used financing modalities are direct credit to private companies; loans to subnational governments; and medium- and long-term credit, and trust administration. In addition to financing, development banks contribute by providing technical capacities for the identification, formulation and execution of infrastructure projects, and the assessment of their environmental and social risks.
- LAC's main trading partners are China, the United States, and the European Union, which together account for more than 60% of the region's total trade. Currently, the US continues to be LAC's most important trading partner, accounting for more than 40% of exports received. On the other hand, China and the European Union have a minor relative importance, attracting 15% and 9% of LAC exports, respectively. It is important to underscore the fact that China has emerged as an important trading partner for LAC, with a steady growth in raw material imports and manufactured exports. In addition, China has become an important source of investment in the region.

- Another problem among those facing Latin American economies is the low diversity of the products that they export. With the exception of Mexico, manufactured products in LAC have been losing their relative economic importance, and value added is also declining. Along these lines, LAC's external consumer markets promoted more strongly the production of consumer goods and mineral and energy supplies, while manufacturing production stayed notoriously lagging behind.
- One of the main characteristics of globalization has been the trend towards the manufacture of products integrating materials and services from different origins, which translates into the emergence of global value chains. However, LAC has not been able to take advantage of the insertion in these chains and has limited itself to forward productive chains. It is considered that this low performance can be attributed to factors such as geography, informality, institutions, inequality, market size and resource endowment, although policies also play a relevant role.
- Over the past twenty years, we have observed a steady advance towards regional economic integration in almost all parts of the world. However, intraregional trade in LAC remained stagnant, with little variation over time, at around 15% of total exports since the mid-nineties. These figures contrast with the results achieved by other regions of the world, such as Europe, where intraregional trade reaches 60% of the total.
- In their investment and foreign trade support strategies, development banks employ financial instruments similar to those of other financial institutions, generally based on loans for working capital, international factoring, forfaiting, guarantees and insurance; and complement them with the financing of infrastructure projects that support the reduction of costs and improvement of logistics for international trade. They can also facilitate access of companies to markets by providing information, commercial promotion and opportunities to establish contacts.
- In LAC, the internationalization of SMEs is very limited; Its share of the region's total exports does not exceed 5% on average. Hence, Development Banking seeks to facilitate support mechanisms so that a greater number of SMEs can access regional and global markets as exporters of value-added goods and services, integrating them into international value chains. In this sense, development banks play an important role as catalysts for the development of trade finance, and in strengthening public policies that allow a greater internationalization of SMEs. Development banks support and foment exports and investment, guaranteeing international trade and investment transactions, and providing direct financing.

BIBLIOGRAPHIC REFERENCES

- ADN (2018). BNF and Banco Nación Argentina will provide services to citizens. February 21, 2018. <https://www.adndigital.com.py/bnf-Banco-nacion-argentina-brindaran-servicios-ciudadanos/>.
- ALIDE (2022). Financing infrastructure and opportunities for the region: a view from Development Banking. <https://www.alide.org.pe/wp-content/uploads/2022/04/Financiamiento-de-infraestructura.pdf>.
- Alvarez, V. (2021). How to boost value chains in a world affected by the pandemic. Ideas that count. <https://blogs.iadb.org/ideas-que-cuentan/es/como-impulsar-las-cadenas-de-valor-en-un-mundo-afectado-por-la-pandemia/>.
- Arteta, C., Kamin, B., & Ulrich, F. (2022). How do rising US interest rates affect emerging and developing economies? It depends. Policy Research working paper; No. WPS 10258 Washington, D.C.: World Bank Group. <http://documents.worldbank.org/curated/en/099036212082239238/IDU032d1feef0db0d0480e0b3190f92d87c50de8>.
- Becker, A. (2021). The energy transition and the war for resources in the global South. New Society | Democracy and politics in Latin America. November 23, 2022. <https://nuso.org/articulo/transicion-energetica-recursos-sur-global-litio/>.
- WB, World Bank. (2023). Drop in long-term growth prospects: Trends, expectations and policies. Worldbank.org. <https://openknowledge.worldbank.org/bitstreams/fe0880d1-ffbf-430f-bab4-d3dbdda7470e/download>.
- BNamericas. (2021). Growing railway interest of private companies causes controversy in Brazil. Bnamericas.com. November 3. <https://www.bnamericas.com/es/reportajes/creciente-interes-ferroviario-de-empresas-privadas-causa-controversia-en-brasil>.
- BNamericas. (2022a). Latin American minerals attract EU to alleviate China's predominance. November 3, 2022. <https://www.bnamericas.com/es/noticias/minerales-de-latinoamerica-atraen-a-ue-para-paliar-predominio-de-china>.
- BNamericas. (2022b). How is the green hydrogen race going in Latin America. BNamericas. November 25. <https://www.bnamericas.com/es/noticias/como-va-la-carrera-del-hidrogeno-verde-en-america-latina>
- Brichetti, J. P., Mastronardi, L., Rivas, M. E., Serebrisky, T., & Solís, B. (2021). The infrastructure gap in Latin America and the Caribbean: estimation of the investment needs until 2030 to advance towards meeting the Sustainable Development Goals. Inter-American Development Bank (IDB). <https://doi.org/10.18235/0003759>.
- Campos, R., & Timini, J. (2023). The commercial links of Latin America and the Caribbean in the face of the risks of a global geopolitical fragmentation. Economic Bulletin, 2023/T1. <https://doi.org/10.53479/29595>.

ECLAC. (2020). Annual Report: Foreign Direct Investment in Latin America and the Caribbean. CEPAL.org. LC/PUB.2020/15-P, 198pp.
https://repositorio.CEPAL.org/bitstream/handle/11362/46450/2/S2000595_es.pdf.

ECLAC. (2021a). Latin America and the Caribbean has all the conditions to become a renewable energy hub with great potential in green hydrogen. CEPAL.org.
<https://www.CEPAL.org/es/noticias/america-latina-caribe-tiene-todas-condiciones-convertirse-un-hub-energia-renovable-gran>.

ECLAC. (2021b). Investing in a sustainable, resilient and inclusive infrastructure for economic recovery. Facilitation, Trade and Logistics in Latin America and the Caribbean, 5, 18.
https://repositorio.CEPAL.org/bitstream/handle/11362/47573/1/S2100705_es.pdf.

ECLAC. (2022). Annual Report: Foreign Direct Investment in Latin America and the Caribbean. CEPAL.org. <https://www.cepal.org/es/publicaciones/48520-la-inversion-extranjera-directa-america-latina-caribe-2022>.

Dini and G. Stumpo, M. (coords.) (2020). MSMEs in Latin America: a fragile performance and new challenges for development policies. CEPAL.org; Project Documents (LC/TS.2018/75/Rev.1), Economic Commission for Latin America and the Caribbean (ECLAC). https://repositorio.CEPAL.org/bitstream/handle/11362/44148/1/S1900361_es.pdf.

Drees-Gross, F., & Zhang, P. (2021). The scarce digital access slows down Latin America and the Caribbean. How to solve this problem? World Bank blogs.
<https://blogs.worldbank.org/es/latinamerica/el-escaso-acceso-digital-frena-america-latina-y-el-caribe-como-solucionar-este>.

FDN. (2023). Management Report 2022. Financiera de Desarrollo Nacional de Colombia.
<https://fileserver.fdn.com.co:8080/Descarga?ruta=fdn/REND CUENTAS/00006/FDNINFESTO00060012022123101.pdf>.

Fontagro. (2023). Bioeconomy in the agenda of Latin America and the Caribbean.
<https://www.fontagro.org/es/publicaciones/prensa/la-bioeconomia-en-la-agenda-de-america-latina-y-el-caribe/>.

ITF, International Transport Federation (2016). Capacity to Grow: Transport Infrastructure Needs for Future Trade Growth. Organization for Economic Co-operation and Development, Paris.
<http://www.itf-oecd.org/sites/default/files/docs/future-growth-transport-infrastructure.pdf>.

Kreimerman, R. (2020). Industry in Latin America: continuity or change? Priority measures in another direction. <https://fes-transformacion.fes.de/>.
<https://library.fes.de/pdf-files/bueros/mexiko/16564.pdf>.

Lajtman, T., & García Fernández, A. (2021). Lithium landscape in Latin America. Celag.org.
<https://www.celag.org/panorama-litio-en-america-latina/>.

Mogollón, A. M., & Dueñas, C. (2022, November 29). Latin America can become a world role-model in the fair energy transition. Ediciones EL PAÍS S.L. <https://elpais.com/america-futura/2022-11-29/america-latina-puede-convertirse-en-un-referente-mundial-de-la-transicion-energetica-justa.html>.

O'neil, S. (2022). Why Latin America lost with globalization –and how it can win now. Americas Quarterly. July 26, 2022. <https://www.americasquarterly.org/article/por-que-america-latina-perdio-con-la-globalizacion-y-como-puede-ganar-ahora/>.

Reuters. (2023). World Bank chief raises 2023 global growth outlook slightly, eyes debt progress. Reuters. <https://www.reuters.com/markets/world-bank-boosts-2023-global-growth-forecast-slightly-malpass-2023-04-10/>.

Roa, N. (2022). Towards a road infrastructure with zero net emissions in Latin America and the Caribbean. Moviliblog. <https://blogs.iadb.org/transporte/es/hacia-una-infraestructura-vial-con-cero-emisiones-netas-en-america-latina-y-el-caribe/>.

Rodriguez, D. (2021). International trade in agri-food products in Latin America and the Caribbean and the transformation of food systems. Blog del IICA. <https://blog.iica.int/blog/comercio-internacional-productos-agroalimentarios-america-latina-caribe-transformacion-los>.

Sanguinetti, P., Moncarz, P., Vaillant, M., Allub, L., Juncosa, F., Barril, D., Cont, W., & Lalanne, Á. (2021). RED 2021: Pathways to integration: facilitation of trade, infrastructure and global value chains. CAF Banco de desarrollo de América Latina. <http://scioteca.caf.com/handle/123456789/1823>.

Serebrisky, T., Brichetti, J. P., Blackman, A., & Mesquita Moreira, M. (2020). Sustainable and digital infrastructure to boost the post-COVID-19 economic recovery of Latin America and the Caribbean: A path to more jobs, integration and growth. Inter-American Development Bank.

Siroit, G. (2022). Latin America and critical minerals for the energy transition. Energy for the Future; Inter-American Development Bank. September 13, 2022. <https://blogs.iadb.org/energia/es/america-latina-y-los-minerales-criticos-para-la-transicion-energetica/>.

The Economist. (2018). Latin America needs an infrastructure upgrade. Economist (London, England: 1843). <https://www.economist.com/the-americas/2018/03/10/latin-america-needs-an-infrastructure-upgrade>.

UNCTAD, C. de las N. U. S. C. y. D. (2022). Impact of the Covid-19 pandemic on trade and development lessons learned. Unctad.org. https://Unctad.org/system/files/official-document/osg2022d1_en.pdf.

UNCTAD, C. de las N. U. S. C. y. D. (2023). Global FDI momentum weakened in 2022 with downward pressure on projects after Q1. Decline expected for 2023. Unctad.org; Investment Trends Monitor. https://Unctad.org/system/files/official-document/diaeiainf2023d1_en.pdf